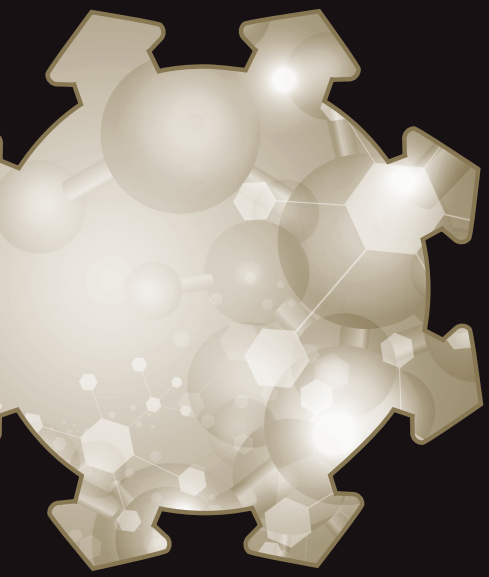
PROGRAM

14th International IMBMC Medical Congress



Bio-medical Scientific Cyprus

23 Credits of Continued Medical Education (CME) will be awarded by the CYMA

23 Credits of Continued Professional Development by the CBS

- 19th to 21th of November 2026
- Cultural Center, European University Cyprus

Organized & Supervised by:
Professor Dr Ioannis Patrikios

Organized by:

European University Cyprus | School of Medicine

Co-organized and under the auspices:

CYPRUS MEDICAL ASSOCIATION

Under the auspices:

ΚΥΠΡΙΑΚΗ ΔΗΜΟΚΡΑΤΙΑ ΥΦΥΠΟΥΡΓΕΙΟ ΤΟΥΡΙΣΜΟΥ

REPUBLIC OF CYPRUS DEPUTY MINISTRY OF TOURISM

With the support:

ΑΝΤΑ

Sponsors:

ENERGON

PMI SCIENCE

PROTON MEDICAL

NOVARTIS

GEORGIADES & ASSOCIATES

DELORBIS

PHADISCO

GE HealthCare



ZEISS Axiolab 5
Your Smart Microscope for More Efficient
Routine Lab Work

ENERGON

ZEISS

Index

Welcome Address by Dr. Constantinos Tsioutis 7

Welcome Address by the Rector Professor Loizos Symeou 8

Welcome Address by the Congress Chairman Professor Dr Ioannis Patrikios 10

Welcome Address by the Dr Petros Agathangelou Chairman of the CyMA 11

Organizing Committee 12

Program 18

Speakers CVs 58

Abstracts 117

• Invited Abstracts 118

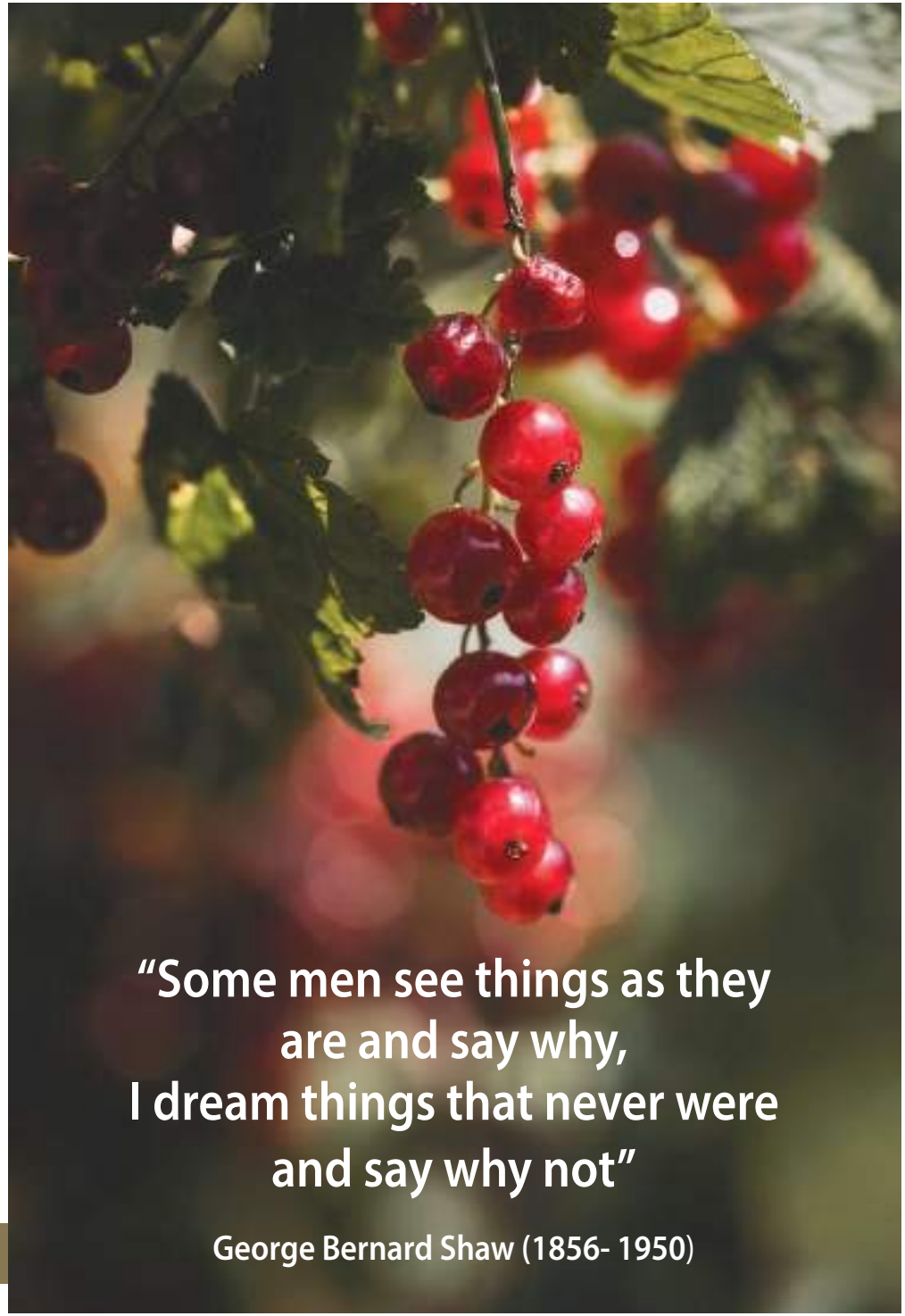
Photos from 2025 the 13th IMBMC 152

• Selected Adstracts 158

• Poster Abstracts 172

Names of Chairpersons and Speakers in Alphabetical Order 206

Names of Volounteers Medical Students 210



ΔΕΙΤΕ ΤΑ ΑΠΟΤΕΛΕΣΜΑΤΑ ΤΗΣ ΕΡΕΥΝΑΣ ΜΑΣ

PMI SCIENCE

Δημιουργούμε
ένα μέλλον απαλλαγμένο
από το τσιγάρο

Αναπτύσσουμε εναλλακτικά προϊόντα
χωρίς καύση και αξιολογούμε
τις επιπτώσεις τους στην ατομική
και τη δημόσια υγεία χρησιμοποιώντας
αυστηρές επιστημονικές μεθόδους

Γνωρίστε το PMI Science
pmiscience.com

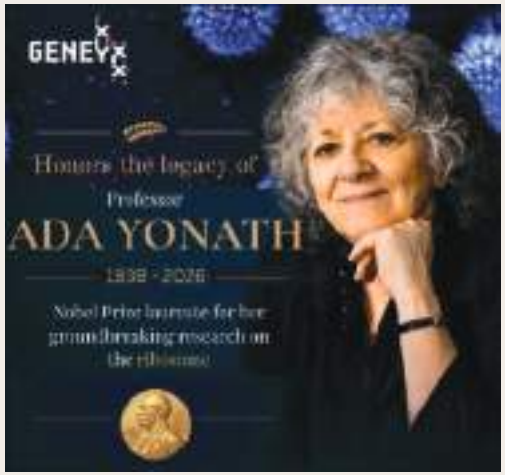
PMI Science
@pmiscience

Το παρόν απευθύνεται μόνο σε επιστήμονες
και επαγγελματίες στον τομέα της υγείας

Memoriam

This year's Congress is devoted to the memory

Professor Dr. Ada Yonath (1939-2026)
Laureate and Doctor Honoris Causa of the European University Cyprus School of Medicine



Proudly commemorates, through its dedicated Cardiology Session,
the life and unparalleled scientific legacy
of Professor Dr. Eugene Braunwald (1929-2026)
one of the founding giants of modern cardiology



Welcome Address



Dr. Constantinos Tsioutis

Dean, School of Medicine

On behalf of European University Cyprus and the School of Medicine, it is a pleasure to welcome you to the 14th International Multithematic Scientific BioMedical Congress (IMBMC).

The IMBMC continues to serve as an important scientific gathering for the region, reflecting our ongoing commitment to academic rigor, interdisciplinary research, and international collaboration. Now in its 14th year, the Congress provides a valuable platform for faculty, researchers, healthcare professionals, and students to engage with cutting-edge developments across the biomedical sciences.

Over the past decade, our School has grown remarkably. What began as a small institution welcoming students from just two Over the past decade, the School of Medicine at European University Cyprus has expanded significantly, growing into a vibrant academic community with a strong international profile. Our educational framework emphasizes transnational learning, offering clinical placements and partnerships with over sixty distinguished institutions globally, alongside our international campus in Frankfurt, Germany. Events of this scale reinforce our commitment to connecting local expertise with global medical advancement.

This year's scientific program features a comprehensive series of keynote lectures, symposia, and interactive sessions delivered by over 75 distinguished national and international speakers. A highlight this year is the conferral of the Doctor Honoris Causa upon Professor Emmanuelle Charpentier, Nobel laureate in Chemistry 2020, honoring her outstanding lifelong contributions to medicine and microbiology.

We extend our sincere appreciation to the Organizing and Scientific Committees, including co-organizer Clinical Professor Petros Agathangelou, President of the Cyprus Medical Association, for their work in coordinating this year's program. We also acknowledge the key contributions of Professor Ioannis Patrikios in establishing and leading this event over many years. We would also like to express our gratitude to our sponsors and supporting organizations for their continuous support.

The Congress is held under the auspices of the Ministry of Health, the Cyprus Medical Association (CYMA), and other prominent bodies.

We trust that the discussions, presentations, and exchanges over the coming days will prove both intellectually stimulating and professionally rewarding. We hope you enjoy your time at European University Cyprus and in Nicosia.

Welcome to the 14th IMBMC

Constantinos Tsioutis MD PhD MBA FHEA

Dean
School of Medicine
European University Cyprus

Welcome Address



by the Rector

Professor Loizos Symeou

Distinguished guests and participants

I am honoured to welcome you to European University Cyprus for the opening ceremony of the 14th International Multi-thematic Scientific Bio-Medical Congress, organised by our esteemed School of Medicine.

The annual International Multi-thematic Scientific Bio-Medical Congress is a prominent scientific gathering in Cyprus and has significantly advanced research and innovation in its various fields of study on the island.

The Congress has thus earned a distinguished reputation for drawing eminent scholars, academics and researchers in Bio-Medical Sciences and Medicine from around the globe to Cyprus. This year's event continues that proud tradition.

We are delighted to be joined by Faculty not only from our main campus in Nicosia, where the Congress is taking place, but also from our Frankfurt campus in Germany, home to our School of Medicine and our School of Life and Health Sciences.

EUC has established itself as the most international university in the higher education landscape of Cyprus and Greece, with a presence in Nicosia, Frankfurt, China, and soon in Athens. This is reflected in the recently announced Times Higher Education World University Rankings 2027, where EUC is ranked 94th worldwide in International Outlook. More importantly, EUC has this year advanced in this renowned ranking to the top 701–800 band of universities globally.

This strength is particularly evident in the health sciences, where EUC stands strong among the 601–800 universities worldwide in the Medical and Health Subject category. Four of our seven Schools are devoted to the broader Health Sciences: the School of Life and Health Sciences, the School of Medicine, the School of Dentistry and the School of Veterinary Medicine. As a result, EUC provides the most comprehensive portfolio of programmes in these areas among all Cyprus universities, 13 of which are offered exclusively at our university.

These programmes are firmly grounded in teaching excellence and in a close connection between education and the clinical world. Our students learn from faculty who are both active researchers and experienced practitioners, and they train in clinical environments, in cooperation with hospitals and healthcare professionals. In this way, we educate doctors, dentists, veterinarians and health scientists who combine strong scientific foundations with clinical competence, ethical responsibility and care for patients, ready to meet the health needs of society in Cyprus, Greece and more than 50 countries from Europe and beyond.

Research is central to our identity. Over the past decade, our research activity has grown steadily at an average annual rate of 20–30%, resulting in a significant increase in external funding and a strong presence in peer-reviewed publications. Our Faculty and researchers collaborate with leading scientists from top universities around the world, and lead or contribute to prestigious research projects funded by the European Commission, the Research and Innovation Foundation in Cyprus, and other major funding bodies. This excellence is recognised internationally: seventeen EUC faculty members and affiliated researchers have been named in the latest edition of the Stanford–Elsevier lists of the World's Top 2% Scientists.

Our international outlook is also reflected in our strategic partnerships. EUC is a member of a consortium of eight partners in the European Universities Alliance SUNRISE", the acronym for (strategic) (Strategic Universities Network for Regional Innovation and Sustainable Evolution), which has received funding of 14.4 million euros from the European Commission. EUC is also a full member of the Utrecht Network, a network of 30 historic and prestigious European universities.

These are not abstract accomplishments. They reflect a clear institutional strategy in which university education, research, innovation and technology assume a central role.

This Congress is a forum that demonstrates the contribution of EUC and its Faculty in positioning Cyprus as a leading centre for medical education and research in the region.

I would like to conclude with my warm thanks and congratulations to all those who worked on the organisation of this year's Congress, and especially to Prof. Ioannis Patrikios of our School of Medicine, founder of the Congress. I would also like to acknowledge all sponsors and supporters for their contribution.

Best wishes to all for a successful congress.

Professor Loizos Symeou
Rector, European University Cyprus
November 2026

Welcome Address



By Professor Dr. Ioannis Patrikios

Founder and Chairman of the Congress Scientific Committee

Faculty member of the School of Medicine, EUC

Dear Congress Participants and Guests,

It is my great honor and pleasure to welcome you to the 14th International Multi-thematic Bio-Medical Congress, organized by the School of Medicine at European University Cyprus (EUC) in collaboration with the Cyprus Medical Association that is taking place in Nicosia from November 19 to 21, 2026.

The 2026 Congress is dedicated to the cherished memory of Nobel Laureate and Doctor Honoris Causa of the European University Cyprus School of Medicine, Professor Dr. Ada Yonath (1939-2026), while the Cardiology Session is held in honour of the enduring legacy of the legendary Professor Dr. Eugene Braunwald (1929-2026), whose seminal contributions shaped modern cardiovascular medicine.

I extend a warm welcome to our distinguished keynote and plenary speakers, as well as to the vibrant medical and scientific community of Cyprus and abroad and the international delegates from countries including Greece, Denmark, Holland, the UK, Romania, Italy, Germany, France, Austria, Spain, Israel and many others. Your presence elevates the high standard of this multidisciplinary scientific symposium.

I would like to express my sincere appreciation to the Ministry of Health, CYMA, and all supporting organizations for their invaluable support and recognition. This congress has been institutionalized by CYMA, and I thank President Dr. Petros Agathaggelou and the entire committee for their ongoing partnership.

For over a decade, our congress has grown into a leading international platform, showcasing cutting-edge research with more than 350 abstracts published in the annual congress library ISBN referenced abstract book, many of which have been published in the respected "Cell Death & Disease" journal. This recognition underscores our commitment to scientific excellence and the status of Cyprus as a hub of knowledge and innovation.

Over the years, the congress has continuously promoted collaboration, education, and the dissemination of new scientific and clinical practices across the medical community. The event not only provides a rich scientific program but also offers unique opportunities for networking and cultural exchange in the beautiful Mediterranean environment of Cyprus—an island renowned for its natural beauty and history.

I would like to thank all the speakers, session moderators, abstract evaluation committee and volunteers for their dedication and effort in making this congress a success. Special thanks go to our generous, major sponsors, the Diamond sponsor Energon Lab Equipment and Mr Thanasis Ragousis the company's CEO, our major sponsor for more than 8 consecutive years, the Gold Sponsor Philipp Morris International, the Ministry of Tourism for its support, the Bronz sponsors, Ophthalmos Clinic, Georgiades and Associates, Proton Medical, Pfizer, Papaellinas group, Novartis, Delorbis, and the supporters EPOS IASIS, PHADISCO-GE, ONE HEALTH Cambridge Medical Academy, NORDIC WELLBEING ACADEMY and the Cyprus Biological Society.

Lastly, I wish to note that November is one of the best times to visit Cyprus, combining excellent weather with inspiring scenery. I hope you will enjoy both the scientific content of the congress and the beauty of our island.

Thank you all for your participation. I am confident this meeting will be both productive and memorable. I wish you an enriching experience and a successful inspiring congress.

Ioannis Patrikios

Professor Dr Ioannis Patrikios
Professor, School of Medicine European University Cyprus and
Congress Founder

Welcome Address



By the Congress Vice-Chair, Congress Scientific Committee

Clin. Prof. Dr Petros Agathaggelou,

School of Medicine

President, Cyprus Medical Association (CyMA)

The International Multithematic Scientific Bio-Medical Congress has become a well-established scientific and medical congress that brings together professionals, academics, and innovators from across the spectrum of medical and biomedical sciences. It serves as a forum where clinical practice and academic inquiry converge, advancing knowledge through dialogue, innovation, and collaboration.

This 14th edition, under the theme "Scientific Cyprus," highlights our shared aspiration to promote Cyprus as a vibrant centre of medical knowledge and a meeting point where science transcends borders and contributes to the continuous evolution of medicine and healthcare.

For the Cyprus Medical Association, this collaboration with the European University Cyprus reflects our ongoing mission to bridge clinical medicine with academic excellence, ensuring that scientific progress is guided by ethics, empathy, professionalism and clinical excellence.

I extend my sincere congratulations to Professor Ioannis Patrikios, the Organizing Committee, and all who have contributed to this remarkable event.

May this congress continue to inspire learning, innovation, and the spirit of collaboration that defines Scientific Cyprus.

With warm regards and best wishes for a successful congress.

Clin. Prof. Dr Petros Agathangelou
President, Cyprus Medical Association (CyMA)
Vice-Chair, Congress Scientific Committee

Organizing Committee

Master of Ceremony

Sophia Themistocleous

(PhD Candidate)

Organizing Committee

Chairman: Ioannis Patrikios

Professor, School of Medicine European University Cyprus and Congress Founder

Vice Chairman: Petros Agathaggelou

Clinical Professor, School of Medicine European University Cyprus & President of the Cyprus Medical Association

Members: Anastasis Stephanou

Professor, School of Medicine European University Cypruss

Georgios P. Georgiou

Assoc. Professor, School of Medicine European University Cyprus

Faculty Members of the School of Medicine European University Cyprus

Independent Poster Award Committee

Professor Dr Konstantinos Dimas

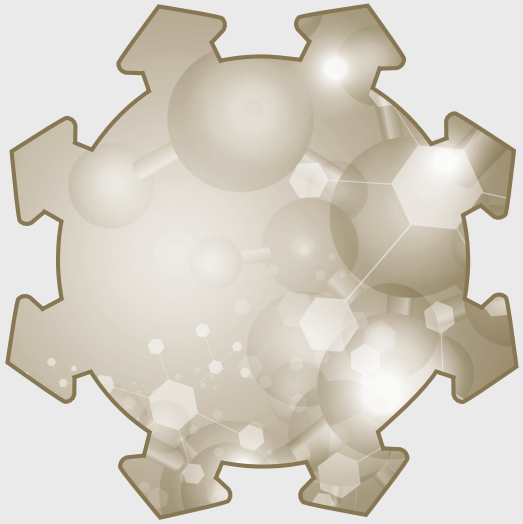
School of Medicine, University of Larissa

Professor Dr Kyriakos Kypreos

School of Medicine, University of Patras

Professor Dr Anastasis Stephanou

Professor, School of Medicine European University Cyprus



Bio-medical Scientific Cyprus

Program

PROGRAM

14th International IMBMC Medical Congress

Bio-medical Scientific Cyprus

23 Credits of Continued Medical Education (CME) will be awarded by the CYMA

23 Credits of Continued Professional Development by the CBS

- 19th to 21th of November 2026
- Cultural Center, European University Cyprus

Organized & Supervised by:
Professor Dr Ioannis Patrikios

Organized by: European University Cyprus | School of Medicine

Co-organized and under the auspices: Cyprus Medical Association

Under the auspices: Κυπριακή Δημοκρατία Υφυπουργείο Τουρισμού / Republic of Cyprus Deputy Ministry of Tourism

With the support: ANTA

Sponsors: ENERGON, Papanikolaou, Ophthalmos, PMI Science, Proton Medical, Novartis, Cyprus, Georgiades & Associates, Pfizer, Delorbis, Phadisco, GE HealthCare

ENERGON

En-Ergon Scientific EES Ltd
T: +357 22 021 010
F: +357 22 780 770
E: info@energon.com.cy
W: www.energon.com.cy



thermo scientific Authorised Distributor
Gaumard
omega BIO-TEK
VILBER Smart Imaging

PROGRAM

14th International IMBMC Medical Congress

Bio-medical Scientific Cyprus

Credits of Continued Medical Education (CME) will be awarded by the CYMA

23 Credits of Continued Professional Development by the CBS

- 19th to 21th November 2026
- Cultural Center, European University Cyprus

Organized & Supervised by:
Professor Dr Ioannis Patrikios

Under the auspices:

PMI SCIENCE
PHILIP MORRIS INTERNATIONAL

ΔΕΙΤΕ ΟΛΑ ΤΑ ΔΕΔΟΜΕΝΑ ΜΑΣ

Δημιουργούμε ένα μέλλον απαλλαγμένο από το τσιγάρο

Αναπτύσσουμε εναλλακτικά προϊόντα χωρίς καύση και αξιολογούμε τις επιπτώσεις τους στην ατομική και τη δημόσια υγεία χρησιμοποιώντας αυστηρές επιστημονικές μεθόδους

Γνωρίστε το PMI Science
pmiscience.com

PMI Science @pmiscience

Το παρόν απευθύνεται μόνο σε επιστήμονες και επαγγελματίες στον τομέα της υγείας

14th International Multithematic Scientific Bio-Medical Congress (IMBMC)

"Bio-medical Scientific Cyprus"

THURSDAY, 19 NOVEMBER 2026

Program

08:00 – 08:55 **Registration / Coffee**

08:55 – 09:00 **EUC School of Medicine**



MASTERS OF CEREMONY
Short Introduction and Kick-off

Professor Dr. Ioannis Patrikios
Founder and Organizing/Scientific Committee Chairman



In Memoriam: Ada Yonath Nobel Laureate
School of Medicine EUC (1939 – 2026)
"Doctor Honoris Causa"

SESSION I

NEW ENVIRONMENTAL REALITIES AND PUBLIC HEALTH - GLOBAL WARMING
ENVIRONMENTAL AND HABITUAL FACTORS JEOPARDIZE HEALTH: ARE WE REALLY PROTECTED?

Chairs: Prof. Dr. Anastasis Stephanou, Assist. Prof. Dr. Iva Tzvetanova, Prof. Dr. Christos Dimopoulos

09:00 – 09:15 **"Global Warming and its effect on the Occupational Safety & Health of Workers"**



Assoc. Prof. Christos Dimopoulos
Associate Professor of Computer Science & Engineering, European University Cyprus;
Director of Science in Civil Protection, CERIDES

09:15 – 09:30 **"Disaster Risk Reduction in the New Environmental Realities"**



Professor Dr. Giorgos Boustras
Professor in Risk Assessment, European University Cyprus

09:30 – 09:45 **"Nuclear Accidents: Risks, Realities and self-protection"**



Dr. Prodromos Kaplanis
Medical Physics and Radiation Protection Expert Visiting Professor, School of Medicine
European University Cyprus, Frankfurt Branch

09:45 – 10:00 **"Emerging Biohazards and Future Public Health Challenges: A Biosafety Perspective"**



Dr. Timo Kehl
Head, Staff Unit Biological Safety and Research Security German Cancer Research Center (DKFZ)
Heidelberg, Germany

SESSION II

MEDICAL GENETICS, PROTEOMICS, METABOLOMICS AND BIOINFORMATICS AS TOOLS FOR NEW THERAPIES

BLOOD MALIGNANCIES, TOXINS, CHRONIC AND RARE DISEASES AND NOVEL APPROACHES: WHAT ELSE IS YET TO COME?

Chairs: Dr. Pavlos Neophytou, Assoc. Prof. Dr. Charalambos Michaeloudes

10:00 – 10:15 **"The role of genetic disease modifiers in prognosis, therapy and equity of treatment for rare diseases"**



Assoc. Prof. Dr Carsten Werner Lederer
Senior Scientist, Head of Department, Blood Disorder Genetics & Thalassemia,
The Cyprus Institute of Neurology & Genetics (CING)
Assoc. Prof. and Program Coordinator, CING Postgraduate School

10:15 – 10:30 **"Epigenetics in cancer: New mechanistic insights from chromatin proteomics"**



Professor Dr. Antonis Kirmizis
Professor of Epigenetics and Cancer Biology, Department of Biological Sciences
University of Cyprus, Cyprus

10:30 – 10:45 **"Persistent Viral Infection as a Potential Driver of Intestinal Ageing and Tumour Initiation: Insights from Drosophila"**



Dr. Savvas Telonis
Molecular Virology Department, The Cyprus Institute of Neurology & Genetics
Nicosia, Cyprus

10:45 – 11:00 **Sponsored by the Cyprus Biological Society (CBS)**



"Integrating culturomics, multi-omics, and AI-based approaches on the oral and gut microbiomes for the discovery of potential novel probiotics and bioactives"

Professor Dr. Karsten Kristiansen
Laboratory of Integrative Biomedicine, Department of Biology, University of Copenhagen, Denmark and Institute of Metagenomics, BGI-Research, Shenzhen, China
And Institute of Metagenomics, Qingdao-Europe
Advanced Institute for Life Sciences, Qingdao, China

CYPRUS BIOLOGICAL SOCIETY

SESSION III

NEUROLOGY, NEUROGENETICS, NEUROPHYSIOLOGY, NEUROIMMUNOLOGY, NEUROPHARMACOLOGY AND SPINAL CORD INJURY
CHRONIC DISEASES
NEW THERAPEUTIC TOOLS, NOVELTIES AND EMERGING TARGETS, REPURPOSING DRUGS

Chairs: Assoc. Prof. Dr. Dimitris Papadopoulos, Vis. Prof. Apostolos Papalois, Vis. Prof. Tasos Karandreas

11:00 – 11:15 **"Amyloid-Targeting Therapies in Alzheimer's Disease: From Pathophysiological Rationale to Clinical Practice"**



Dr. Costas Michaelides
Consultant Neurologist
American Medical Center/American Heart Institute Cyprus

11:15 – 11:30 **"Vaccines as new Treatment approach for Neurological Autoimmune Diseases"**



Professor Dr. Marios Pantzaris
Senior Consultant Neurologist, Head of Neuroimmunology Department
Cyprus Institute of Neurology and Genetic

11:30 – 11:45 **"Development of novel angiotensin II receptor ligands for neuroprotection, neurorepair and tumour suppression"**



Dr. Patrick Pallier
Reader in Neuroscience, Barts and The London School of Medicine and Dentistry
Centre for Neuroscience, Surgery and Trauma
Queen Mary University of London, The Blizard Institute

11:45 – 12:15 **Lunch Buffet**
POSTER SESSION

SESSION IV

PREVENTIVE CARDIOLOGY, FATS THAT HEAL, FATS THAT KILL, CORONARY ARTERY DISEASE, FOCUS ON TODAY TO ENLIGHTEN THE FUTURE
NAVIGATING LIPID LABYRINTH: KEY QUESTIONS ON LDL AND HDL FOR CARDIOVASCULAR WELLNESS

Chairs: Chairs: Dr. Giorgos Miltiadous, Dr. Fivos Symeonides

12:15 – 12:30 **"Building Cardiovascular Resilience: Lifestyle Medicine and the Prevention of Cardiomyopathy"**



Dr Vicky Zeniou
Cardiology Consultant, Nicosia Polyclinic

12:30 – 12:45 **"Redefining HDL in Residual Cardiovascular Risk: A Nuanced Paradigm Shift in APOA2 and ASCVD Risk Stratification"**



Professor Dr. Kyriakos Kypreos
University of Patras School of Health Sciences, Department of Medicine, Pharmacology laboratory

12:45 – 13:00 **"Lipid Management in Clinical Practice: Achievements and failures in 30 years of Hypolipidemic treatment"**



Dr. Dimitris Richter
Consultant Cardiologist, Euroclinic Hospital, Athens, Greece

SESSION V

INNOVATIONS AND CHALLENGES IN PULMONOLOGY
SLEEP APNEA, ADVANCING COPD AND SEVERE ASTHMA MANAGEMENT, EMERGING THERAPIES FOR INTERSTITIAL LUNG DISEASE, AND ADDRESSING ENVIRONMENTAL INFLUENCES ON LUNG HEALTH

Chairs: Clin. Assist. Prof Dr. Andreas Zachariades, Dr. Panos Hountis, Dr. Tonia Adamides

13:00 – 13:15 **"Sleep Apnea: Beyond the Airway – A Systemic Disease Hidden in Plain Sight"**



Dr. Dimitrios Grassos
NHS Director, Pulmonology Clinic Panarcadian Hospital Tripolis, Certified Somnologist Expert
Vice President of the Greek Association of Pulmonologists. Ε.Πν.Ελ

13:15 – 13:30 **"Frontline Pulmonology in the Emergency Department: Acute Respiratory Disease and the Enduring Challenge of Tuberculosis"**



Dr. Stamatoula Tsikrika
Chest Physician at SOTIRIA Hospital, President of the Union of Pulmonologists of Greece, Scientific Associate of EODY, Board Member of the Mediterranean Institute for Study & Education in the Prevention & Treatment of Infections

13:30 – 13:45 **"Connective Tissue Disease-associated ILD: Current challenges and emerging opportunities"**



Dr. Alexis Papadopoulos
Consultant in Respiratory Medicine, Fellowship in Interstitial Lung Disease
MedCare Clinic, Nicosia, Cyprus

NOVARTIS

13:45 – 14:00 **"Novel Unified Approaches for the Management of Chronic Obstructive Pulmonary Disease (COPD) and Asthma"**



Professor Dr. Argyris Tzouvelekis
Respiratory Medicine, Professor of Respiratory Medicine University of Patras Greece and Yale University USA

14:00 – 14:20 **KEYNOTE SPEAKER**



Professor Sir Peter Barnes
Professor of Thoracic Medicine, National Heart & Lung Institute

"Accelerated lung ageing as a key mechanism of COPD"

SESSION VI

INTERACTIVE WORKSHOP I

CURRENT TRENDS IN THE MANAGEMENT OF THROMBOSIS AND CARDIOVASCULAR SURGERY

Chairs: Prof. Dr. Miltiadis (Miltos) Matsagkas, Prof. Dr. Konstantinos Toutouzas

14:20 – 14:40 **"Cancer-Associated Arterial Thrombosis: The Next Frontier in Precision Thrombosis in Oncology—The COMPASS-ARTeCAT Breakthrough"**



Professor Dr. Grigoris Gerotziafas (HYBRID)
Director of the CaVITE Research Department (Cancer, Vessels, Biology and Therapeutics), Sorbonne University, Paris and Head of the Center for Cancer–Angiogenesis–Thrombosis and Haemostasis research group Saint Antoine University Hospital AP-HP, Paris France. Professor at the Center for Translational Research and Education, Loyola University Chicago Stritch School of Medicine, and at the Thrombosis and Hemostasis Center, Sechenov University, Moscow, Member of the Russian Academy of Sciences – Thrombosis and Hemostasis Sector

DELORBIS

SESSION COORDINATOR: PROF. DR. MILTIADIS (MILTOS) MATSAGKAS
Professor of Vascular Surgery and Chair, Department of Vascular Surgery, Faculty of Medicine, University of Thessaly, Larissa University Hospital

Chairs: Prof. Dr. Miltiadis (Miltos) Matsagkas, Clin. Assoc. Prof. Dr. Neophytos Zambas, Dr. Konstantinos Vasilas

Format: 10-minute "flash" presentations followed by 10min Interactive discussion

14:45 – 14:55 **"Managing anticoagulant-related bleedings in surgery"**



Professor Dr. Eleni Arnaoutoglou
Professor of Anesthesiology and Chair, Department of Anesthesiology, Faculty of Medicine, University of Thessaly, Larissa University Hospital

14:55 – 15:05 **"Hybrid Aortic Arch Replacement with Frozen Elephant Trunk (FET) Technique: Surgical Considerations, Pearls, and Pitfalls"**



Clinical Professor Dr. Ioannis Tzanavaros
Adult and Pediatric Cardiac Surgeon; Director Cardiac Innovation Center, University of Nicosia Medical School, Apollonion Private Hospital, Nicosia Cyprus

15:05 – 15:15 **"Current trends in the management of Carotid Artery Stenosis"**



Dr. Triantafyllos Giannakopoulos
Consultant Vascular Surgeon Vascular & Endovascular Surgery Lead
Ygia Polyclinic Private Hospital Limassol, Cyprus

15:15 – 15:25 **"Management of Peripheral Artery Disease: where do we stand today?"**



Dr Achilleas Toursidis
Vascular Surgeon, Ygia Polyclinic, Limassol, Cyprus

15:25 – 15:40 **15 Min Interactive Discussion**

15:40 – 15:55 **"Ethical Dilemmas and End of life Decisions in the ICU- A Critical challenge for modern Medicine"**



Professor Dr. Ioannis Pnevmatikos
Professor of Intensive Care Medicine, University of Cyprus, Cyprus

Exception:
In Greek language with an automatic translator available
PLEASE DOWNLOAD

QR

16:00 – 16:25 **Break**



LEQVIO®
inclisiran

▼ LEQVIO™ **Important note: Before prescribing, consult full prescribing information. Presentation:** Solution for injection: Each pre-filled syringe contains inclisiran sodium equivalent to 284 mg inclisiran in 1.5 ml solution. **Indications:** Indicated in adults with primary hypercholesterolaemia (heterozygous familial and nonfamilial) or mixed dyslipidaemia, as an adjunct to diet: • in combination with a statin or statin with other lipidlowering therapies in patients unable to reach LDLC goals with the maximum tolerated dose of a statin, or • alone or in combination with other lipidlowering therapies in patients who are statinintolerant, or for whom a statin is contraindicated. **Dosage and administration:** Recommended dose: 284 mg administered as a single subcutaneous injection: initially, again at 3 months, followed by every 6 months. **Missed dose:** • If a planned dose is missed by less than 3 months, inclisiran should be administered and dosing continued according to the patient's original schedule • If a planned dose is missed by more than 3 months, a new dosing schedule should be started – inclisiran should be administered initially, again at 3 months, followed by every 6 months. Treatment Transition from PCSK9 Inhibitor: Inclisiran can be administered immediately after the last dose of a monoclonal antibody PCSK9 inhibitor. To maintain LDL-C lowering, it is recommended that inclisiran is administered within 2 weeks after the last dose of a monoclonal antibody PCSK9 inhibitor. **Special populations:** *Renal impairment:* No dose adjustment is necessary for patients with renal impairment (mild, moderate or severe), or end-stage renal disease. *Hepatic impairment:* No dose adjustment is necessary for patients with mild or moderate hepatic impairment. Inclisiran should be used with caution in patients with severe hepatic impairment. *Pediatric patients (below 18 years):* The safety and efficacy of inclisiran have not been established. *Geriatric patients (65 years of age or above):* No dose adjustment is necessary. **Method of administration:** Intended for administration by a healthcare professional. For subcutaneous injection into the abdomen. Leqvio should be inspected visually for particulate matter prior to administration. Each pre-filled syringe is for single use only. **Contraindications:** Hypersensitivity to the active substance or to any of the excipients. **Warnings and precautions:** *Hemodialysis:* Hemodialysis should not be performed for at least 72 hours after inclisiran dosing. **Pregnancy, lactation, fertility** *Pregnancy:* No available human data. Animal reproduction studies have not shown risk of increased fetal abnormalities. *Lactation:* Not known if transferred into human milk. A risk to newborns/infants cannot be excluded. A decision must be made whether to discontinue breastfeeding or to discontinue/abstain from inclisiran therapy, taking into account the benefit of breastfeeding for the child and the benefit of therapy for the woman. *Fertility:* No human data. No effects on animal fertility. **Adverse drug reactions:** *Common (≥1/100 to <1/10):* Adverse events at the injection site (includes injection site reaction, injection site pain, injection site erythema, and injection site rash). **Interactions:** Not a substrate, inhibitor or inducer of CYP450 enzymes or common drug transporters. Not expected to have clinically significant interactions with other medications. Based on the limited data available, clinically meaningful interactions with atorvastatin, rosuvastatin or other statins are not expected. **Packs and prices:** LEQVIO solution for injection 284mg/1.5ml in pre-filled syringe (with needle guard): €2530.08.

LEQ01/2021

Reporting of suspected adverse reactions: Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions to: Novartis Pharma Services Inc., Methonis Tower, 73 Makarios Avenue, 1070 Nicosia, Tel: +357 22 690 690 (Pharmacovigilance Department), Fax: +357 22 315032 or to Pharmaceutical Services, Ministry of Health, CY-1475, www.moh.gov.cy/phs, Tel: +357 22 608 632/661, Fax: +357 22 608 649, by completing the Yellow Card which is available to the public pharmacies or electronically in the website www.kitrinikarta.gov.cy.

References: 1. Leqvio Summary of product characteristics. Novartis. 25.11.2024. **2.** RS Wright, FJ Raal, W Koenig, U Landmesser, LA Leiter, GG Schwartz, A Lesogor, P Maheux, Z Talloczy, S Vikarunnessa, X Zang, KK Ray. ORION-8: Long-term efficacy and safety of twice-yearly inclisiran in high cardiovascular risk patients. Data presented at the ESC Congress on August 28, 2023.

NOVARTIS
Novartis Pharma Services Inc.
Methonis Tower, 73 Makarios Avenue, 1070 Nicosia, Tel: +357 22 690 690, Fax: +357 22 496 798

1EQ.A0.02.25 CY

OPENING CEREMONY

16:30 – 16:45 SCHOOL OF MEDICINE – VIRTUAL

VOCAL ENSEMBLE
"Amalgamatio Choir"
Conductor: Vasiliki Anastasiou

16:45 – 17:00 WELCOME ADDRESSES

Professor Dr. Ioannis Patrikios
Congress founder and Scientific Organizing Committee Chairman

Associate Professor Dr. Constantinos Tsioutis
Dean, School of Medicine, European University Cyprus

Professor Loizos Symeou
Rector, European University Cyprus

Clinical Professor Dr. Petros Agathaggelou
President, Cyprus Medical Association & Congress Scientific Committee Vice Chairman

Minister of Health
Mr. Neophytos Charalambides



INAUGURATION CEREMONY
Prof. Emmanuelle Charpentier
Nobel Laureate 2020
"Doctor Honoris Causa"

Lab Supplies Scientific

Vyndaqel®
(tafamidis)



Πριν τη συνταγογράφηση συμβουλευθείτε την Περίληψη Χαρακτηριστικών του Προϊόντος που διατίθεται από την εταιρεία.

▼Το φάρμακο αυτό τελεί υπό συμπληρωματική παρακολούθηση. Αυτό θα επιτρέψει το γρήγορο προσδιορισμό νέων πληροφοριών ασφάλειας. Ζητείται από τους επαγγελματίες υγείας να αναφέρουν οποιεσδήποτε πιθανολογούμενες ανεπιθύμητες ενέργειες. Βλ. παράγραφο 4.8 της Περίληψης Χαρακτηριστικών του Προϊόντος για τον τρόπο αναφοράς ανεπιθύμητων ενεργειών.

Βοηθήστε να γίνουν τα φάρμακα πιο ασφαλή και Αναφέρετε ΟΛΕΣ τις ανεπιθύμητες ενέργειες για ΟΛΑ τα φάρμακα Συμπληρώνοντας την «ΚΙΤΡΙΝΗ ΚΑΡΤΑ»

Pfizer

Pfizer Ελλάς Α.Ε. (Cyprus Branch), Λεωφόρος Αθαλάσσας 26, 2018 Λευκωσία, Κύπρος, Τηλ.: +357 22817690

PMI SCIENCE
PHILIP MORRIS INTERNATIONAL

ΔΕΙΤΕ ΟΛΑ **ΤΑ ΔΕΔΟΜΕΝΑ** ΜΑΣ

Δημιουργούμε ένα μέλλον απαλλαγμένο από το τσιγάρο

Αναπτύσσουμε εναλλακτικά προϊόντα
χωρίς καύση και αξιολογούμε
τις επιπτώσεις τους στην ατομική
και τη δημόσια υγεία χρησιμοποιώντας
αυστηρές επιστημονικές μεθόδους

Γνωρίστε το PMI Science
pmiscience.com

PMI Science @pmiscience

Το παρόν απευθύνεται μόνο σε επιστήμονες και επαγγελματίες στον τομέα της υγείας

14th International Multithematic Scientific Bio-Medical Congress (IMBMC)

"Bio-medical Scientific Cyprus"

FRIDAY, 20 NOVEMBER 2026

Program

08:00 – 08:45 **Registration / Coffee**

08:45 – 10:10 (8 min each presentation)

SELECTED ABSTRACTS

Oral Presentations

(The Presenting Authors are underlined)



"Valve-Sparing Aortic Root Replacement: Principles, Surgical Techniques and Clinical Outcomes"

Georgios Theodoros Chountis[1], Panagiotis Hountis[2], Ioannis Paralikas[2], Konstantinos Plestis[3]

[1]European University Cyprus, Nicosia, Cyprus, [2]Department of Cardiothoracic Surgery, Naval and Veterans Hospital, Athens, Greece, [3]Department of Cardiothoracic Surgery, Sidney Kimmel Medical College, Thomas Jefferson University, Philadelphia, USA



"Anticancer and Antioxidant Potential of Plant-Derived Extracts through Modulation of the Kynurenine Pathway"

Evgenia Maria Tsantila[1] Nils Esslinger [2] and Christiana M. Neophytou[1]

[1]Apoptosis and Cancer Chemoresistance Laboratory, Basic and Translational Cancer Research Center, Department of Life Sciences, European University Cyprus, Nicosia 2404, Cyprus; et221233@students.euc.ac.cy, [2]Department of Research and Development, Alpinamed AG, 9306 Freidorf, Switzerland; *Correspondence: c.neophytou@euc.ac.cy; Tel.: +357-22713218



"Breast cancer clonal dynamics under Aromatase inhibition treatment, supported by single-cell DNA sequencing"

Denise G. O'Mahony [1,2,3], Tom Lesluyes [4*], Ina S. Brorson[1,2], Patrik Vernhoff [1,2], Ksenia Sokolova [5,6], Miriam Ragle Aure[1,2], Grethe G. Alnæs[1,2], Rebecca Mae Hoøen[1,2], Arvind Y.M. Sundaram[1], Bjørn-Erik Bertelsen[7], Chandra Theesfeld [5,8], Stephanie B. Geisler [9], Torill Sauer [10,11], Nazli Bahrami [9,11,13], Rahul Parulkar [14], Matthew Fittall [15], Andliena Tahiri [16], Torben Lüders [2,16], Olga Troyanskaya [5,6,8,17], Charles Vaske[18#], Peter Van Loo [4,19,20#], Jürgen Geisler [2,9#], Vessela N. Kristensen[1,2#]

[1]Department of Medical Genetics, Oslo University Hospital, Oslo, Norway, [2]Institute of Clinical Medicine, Faculty of Medicine, University of Oslo, Oslo Norway, [3]Department of Biostatistics, the Cyprus Institute of Neurology and Genetics, Nicosia, Cyprus,[4]Cancer Genomics Laboratory, Francis Crick Institute, London, UK, [5]Princeton Precision Health, Princeton, New Jersey USA, [6]Center for Computational Biology, Flatiron Institute, New York, USA, [7]Department of Medical Biochemistry and Pharmacology, Haukeland University Hospital, Bergen, Norway, [8]Lewis-Sigler Institute for Integrative Genomics, Princeton University, Princeton, New Jersey, USA, [9]Department of Oncology, Akershus University Hospital, Lørenskog, Norway, [10]Department of Pathology, Akershus University Hospital, Lørenskog, Norway, [11]Translational Cancer Research Group, Akershus University Hospital, Lørenskog, Norway' [12]Institute of Clinical Medicine, Campus AHUS, University of Oslo, Norway, [13]Department of Breast & Endocrine Surgery, Akershus University Hospital, Lørenskog, Norway.

[14]NantHealth, Culver City, CA, [15]Cancer Services, The Royal Marsden NHS Foundation Trust, London, UK, [16]Department of Clinical Molecular Biology (EpiGen), Akershus University Hospital, Lørenskog, Norway, [17]Department of Computer Science, Princeton University, Princeton, New Jersey, USA, [18]NantOmics, LLC, Santa Cruz, CA, United States, [19]Department of Genetics, The University of Texas MD Anderson Cancer Center, Houston, TX, USA, [20]Department of Genomic Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX, USA.

*Equally contributed

#Shared corresponding and last authors



"FlyQTA: Machine Learning-Based Qualitative Assessment of Drosophila Midgut Architecture for Anti-aging and Pro-aging Drug Screening"

Evripides Soteriou[1], Maria Michail[1], Andria Nicolaou[2], Christina Charilaou[1], Katerina Zorba[1], Constantinos S. Pattichis[2], Athos Antoniades[3], Chrysoula Pitsouli[1]

[1]Department of Biological Sciences, University of Cyprus, Nicosia, Cyprus [2] Department of Computer Science, University of Cyprus, Nicosia, Cyprus [3]Stremble, Limassol, Cyprus



Plasma Cell-Free RNA Profiling for Organ Injury in Critical Illness"

Ioannou A[1], Friman ET [1], Daub CO [2,3], Hope D[4], Baillie JK[4], Walsh TS[4], Craven TH[4], Bickmore WA[1], Biddie SC[1,4]

[1]MRC Human Genetics Unit, Institute of Genetics and Cancer, University of Edinburgh, Edinburgh, United Kingdom, [2]Department of Medicine Huddinge, Karolinska Institute, Huddinge, Sweden, [3]Science for Life Laboratory, Solna, Sweden, [4]Department of Critical Care, Royal Infirmary of Edinburgh, NHS Lothian, Edinburgh, United Kingdom.



"Ten-Year Outcomes After Percutaneous Coronary Intervention of the Left Main Coronary Artery in Patients With Diabetes Mellitus: A Pooled Analysis of Two Randomized Trials"

J. Bresha[1], G. Ndrepepa [2], C. Kuna2, T. Kessler [2,3], I. Hintz[2], P. Justenhoven [2], T. Ibrahim[1], S. Kufner [2], H. Schunkert [2,3], M. Valgimigli [4], G. Richardt [5], K.-L. Laugwitz[1,3], S. Cassese [2], A. Kastrati [2,3], J. Wiebe [2,3]

[1]Medizinische Klinik, Klinikum rechts der Isar, Technical University of Munich, Munich, Germany, [2]Department of Cardiology, Deutsches Herzzentrum München, Technical University of Munich, Munich, Germany, [3]DZHK (German Centre for Cardiovascular Research), Partner Site Munich Heart Alliance, Munich, Germany, [4]Division of Cardiology, Cardiocentro Ticino Institute, Ente Ospedaliero Cantonale, Lugano, Switzerland, [5]Department of Cardiology, Asklepios Klinik Bad Oldesloe, Bad Oldesloe, Germany

P. Justenhoven: paul.justenhoven@gmx.de



"The Challenges of STIs in the dermatovenereology of the XXI[st] century"

Mihael Skerlev[1], Andrija Stanimirović[2]

[1]Chair of the HPV Task Force of the European Academy of Dermatology and Venereology (EADV), President of the Croatian STD Society of the Croatian Medical Association, St. Catherine's Special Hospital, Croatian Academy of Medical Sciences, Zagreb, Croatia.

[2]School of Health Studies, University of Zagreb, Zagreb, Croatia and School of Medicine, European University Cyprus, Nicosia, Cyprus



"Delayed Conduction Disturbance After Edwards EVOQUE Transcatheter Tricuspid Valve Replacement: An Emerging Clinical Challenge"

Constantinos Antoniades[1], Georgia Karmioti[1], Nicolaos Eteocleous[1], Ioannis Zittis[1], Kimon Myrianthopoulos[1], Theodoros Christophides[1], Christis Rotos[1], Marios Ioannides[1], Nikolaos Kadoglou[2], Andreas Mitsis[1], Christos Eftychiou[1]

[1] Cardiology Department, Nicosia General Hospital, Nicosia, Cyprus, [2]Medical School, University of Cyprus, Nicosia, Cyprus



"Immune cytolytic activity correlates with tumor microenvironmental aberrations in colorectal cancer"

Stephanie Agioti [1,2], George Georgoulia [1], Ilias Georgakopoulos-Soares[1,3], Maria-Ioanna Christodoulou[1], Apostolos Zaravinos[1,2,*]

[1] Department of Life Sciences, School of Sciences, European University Cyprus, Nicosia, Cyprus, [2] Cancer Genetics, Genomics and Systems Biology Laboratory, Basic and Translational Cancer Research Center (BTCRC), Nicosia, Cyprus, [3] Division of Pharmacology and Toxicology, Dell Paediatric Research Institute, College of Pharmacy, The University of Texas at Austin, Austin, TX 78712, USA



"BTK Inhibition and TRIM24 in CD5+ Malignant B Cells"

Charalampos Xanthopoulos[2], Charlotte McDonald [2], Lisa Crawford [3], Vladimir Teif [4], Helen-Ray Jones[5], Mikhail Spilakov [5], Gael Roue [6], Ken Mills [3], Efterpi Kostareli [1,2]

[1] European University Cyprus, School of Medicine, Frankfurt Campus, Frankfurt, Germany, [2] Wellcome-Wolfson Institute for Experimental Medicine, Queen's University Belfast, Belfast, United Kingdom, [3] Patrick G. Johnston Centre for Cancer Research, Queen's University Belfast, Belfast, United Kingdom, [4] School of Life Sciences, University of Essex, Essex, UK, Functional Gene Control Group, Epigenetics Section, MRC London Institute of Medical Sciences, London, UK, [6] Lymphoma Translational Group, Josep Carreras Leukaemia Research Institute (IJC), 08916 Badalona, Spain



"Oligodendrocyte-Specific Deletion of HIF1α Leads to Dysfunctional Axonal Mitochondria"

Iva D. Tzvetanova[1,2], Sharlen Moore[2], Andrea Trevisiol [2,3,4], Marie-Theres Weil [2,5], Ting Sun [2,6], Torben Ruhwedel [2,5,7], Christos Nardis[2,5], Wiebke Möbius [2,5,7], Livia de Hoz [2,8,9], and Klaus-Armin Nave [2,10]

[1] School of Medicine, European University Cyprus, [2] Department of Neurogenetics, Max Planck Institute for Multidisciplinary Sciences, Göttingen, Germany, [3] Physical Sciences, Sunnybrook Research Institute, Toronto, Ontario, Canada, [4] Hurvitz Brain Sciences, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada, [5] Electron Microscopy Unit, Max Planck Institute for Multidisciplinary Sciences, Göttingen, Germany, [6] Center for Molecular Neurobiology Hamburg (ZMNH), Hamburg, Germany, [7] Cluster of Excellence Multiscale Bioimaging: From Molecular Machines to Networks of Excitable Cells (MBExC), University of Göttingen, Göttingen, Germany, [8] Neuroscience Research Center, Charité-Medical University of Berlin, Berlin, Germany, [9] Department of Physiology, Development and Neuroscience, University of Cambridge, Cambridge, UK, [10] Department of Neuropathology, Charité-Medical University of Berlin, Berlin, Germany

Chairs: Dr. Charalambos Michaeloudes, PhD Cand. Theodora Christina Kyriakou (1 to 5), Dr. Andreas Yiallouris, Dr. Katerina Menelaou (6 to 11)

Juris



GEORGIADES & ASSOCIATES

Advocates & Legal Consultants

Advocates

SESSION VII

INTERACTIVE WORKSHOP II

SATELLITE SESSION

WELLBEING FUTURES

MENTAL HEALTH & HEALTHY AGEING FOR 2050 AND BEYOND BY NORDIC WELLBEING ACADEMY (NWA) · EUROPEAN HEALTH FUTURES FORUM (EHFF) · CAMBRIDGE MEDICAL ACADEMY

A ONE-DAY FUTURES-ORIENTED ROUNDTABLE WITHIN THE 14TH IMBMC

Chairs: Takis Kotis, CEO Cambridge Medical Academy

Format: Three keynote presentations of 10 minutes each, followed by a 10-minute Q&A with the audience.

This session sets the intellectual and emotional frame for the full day — each speaker offering a distinct disciplinary or institutional lens on the central question: what does it mean to build genuinely healthy, resilient, and connected societies by 2050?

10:10 – 10:55 Total Session time



"The WHO lens on mental health systems in the Eastern Mediterranean, Cyprus's National Mental Health Strategy 2025–2028, and the global healthy ageing agenda"

Dr Irshad Shaikh (tbc)

WHO Europe, Cyprus Country Office



"MYRTO, Kapa3's AI-supported Digital Social Navigator"

Evangeli Bista

co-founder and Operations Manager of Kapa3

Exception:
In Greek language with an automatic translator available
PLEASE DOWNLOAD

QR



"Transforming the landscape of mental health - a salutogenic approach"

Mr. Lars Münte

International Director, Nordic Wellbeing Academy; Network Director, European Health Futures Forum. Member, WHO/Europe Public Health Innovation Platform (Domain 4: Public Health Communication & Trust).

Chairs: Prof. Dr. Konstantinos Dimas, Prof. Dr. Anastasis Stephanou

FROM THE NEWS

THE "ELPIDA" FOUNDATION CYPRUS IS AIMING TO UNITE GLOBAL EFFORTS FOR A HEALTHIER FUTURE FOR ALL



"Can a small country make a global health difference? From national evidence to international action in childhood cancer"

Professor Dr. Loizos Loizou

Clinical Professor of Pediatrics, Pediatric Oncology – Hematology, Medical School, University of Nicosia. Frm. Director of the Pediatric Oncology - Hematology Clinic, Archbishop Makarios III Hospital, Nicosia. President of the ELPIDA Foundation for children and adolescents affected by cancer or leukemia.

SESSION VIIIa

NEW FRONTIERS IN ONCOLOGY
CHRONIC DISEASES AND INTEGRATED MEDICINE
THERAPEUTIC TOOL, NOVELTIES AND EMERGING TARGETS, NATURALPRODUCTS AND REPURPOSING DRUGS
FROM GENETICS TO CLINICAL TRIAL TO CLINICAL PRACTICE: NOVEL AND PIONEER STRATEGIES FOR NEW THERAPEUTIC, SURGICAL AND HOLISTIC APPROACHES

Chairs: Prof. Dr. Konstantinos Dimas, Dr. Anastasis Stephanou

11:10 – 11:25 **Satellite Lecture by EROS-Iasis**



"Patient-Enabled Personalised Cancer Monitoring: Living Nodes in the Internet of BioThings"
Dr. Andreani Odysseos
Director of Biomedical Research EPOS-Iasis, R&D

11:25 – 11:40 **"Endothelin Receptor Blockade Potentiates Adoptive T-Cell and CAR T-Cell Therapies"**



Dr. Philippos Demetriou
The Center for the Study of Haematological and Other Malignancies (CSHM) Nicosia, Cyprus

11:40 – 11:55 **"Zebrafish Avatars: A Translational Model for Cancer Pharmacology & Precision Oncology"**



Assist. Prof. Dr. Nikolas Dietis
University of Cyprus Medical School and the Head of the Experimental Pharmacology Laboratory at UCY, University of Cyprus

SURGICAL AND OTHER NOVEL MOLECULAR APPROACHES FOR DIFFERENT DIFFICULT DYSPLASIA, HAEMATOLOGICAL AND ONCOLOGICAL CASES. ENCOUNTER WITH THE PIONEERS

Chairs: Assoc. Prof. Dr. Athanasios Petrou, Assist. Prof. Dr. Periklis Zavrides

11:55 – 12:10 **"Which are the boundaries in using Robotic System DaVinci on a challenging oncological case"**



Clin. Assoc. Prof. Dr. Dimitrios Kyparissopoulos
IASO Medical center; Harefield Hospital, Royal Brompton and Harefield NHS Foundation Trust, London, UK; Head of Thoracic Department, IASO Hospital, Athens, Greece, and Adj. Ass. Prof. in Robotic Surgery, European University Cyprus.

12:10 – 12:25 **"Modern Bone Marrow Transplantation: Breakthroughs Improving Survival and Quality of Life"**



Clin. Prof. Dr. Manolis Nikolousis
Consultant Hematologist and Bone Marrow Transplantation
Program Director for Acute Leukemia and stem cell transplantation at Yas Clinic. Abu Dhabi

12:25 – 12:40 **"HoLEP (Holmium Laser Enucleation of the Prostate) for benign prostatic hyperplasia"**



Clin. Assoc. Prof. Dr Marios Hadjipavlou
Consultant Urological Surgeon, El Greco Medical Centre, Nicosia, The Princess Grace Hospital, London, UNIC School of Medicine, King's College London School of Medicine

SESSION VIIIb

LATEST NEWS IN ONCOLOGY. IS THERE ANY LIGHT AT THE END OF THE TUNNEL?

Chairs: Prof. Dr. Pavlos Kosteas, Haris Charalambous, Elena Andreou

12:40 – 13:00 **KEYNOTE SPEAKER**



Professor Dr. George Vasiliou (HYBRID)
Professor of Haematological Medicine, Cambridge Stem Cell Institute, Jeffrey Cheah Biomedical Centre, Leukemic hemopoietic stem cells, University of Cambridge, UK
"Understanding clonal haematopoiesis for myeloid cancer prevention"

13:00 – 13:15 **"P90 ribosomal S6 kinases: A bona fide target for novel targeted anticancer therapies?"**



Professor Dr. Konstantinos Dimas
Department of Pharmacology
Medical School of the University of Thessaly, Greece

13:15 – 13:30 **"Modern Approaches to Non-Melanoma Skin Cancer: Traditional and New Advances in Basal (BCC) and Squamous Cell Carcinoma (SCC) Treatment"**



Assoc. Prof. Dr. Efterpi Zafeiriou
Assoc. Prof. of dermatology, Head of Dermatology Department, University of Thessaly, University Hospital of Larisa, Greece

13:30 – 13:50 **KEYNOTE SPEAKER**



Professor. Dr. Vasso Apostolopoulos
Distinguished Professor, School of Health and Biomedical Sciences, RMIT University, Melbourne VIC Australia, Expertise in development of drugs and vaccines
"From Bench to Bedside: Translating Cancer Vaccine Research into the Clinic"

13:50 – 14:10 **KEYNOTE SPEAKER**



ProfessorDr. Evanthia Galanis (HYBRID)
Professor of Oncology and Executive Dean of Development, Mayo Clinic Comprehensive Cancer Center, Rochester, Minnesota, USA
"Next-Generation Cancer Immunotherapy: from Mechanism to Medicine"

14:10 – 14:50 **Lunch Buffet**
POSTER SESSION

SESSION IX

SATELLITE BY PAIN CLINIC, NICOSIA CYPRUS

INTERACTIVE WORKSHOP II

CANCER PAIN

SESSION COORDINATOR: ASSIST. PROFESSOR DR. PERIKLIS ZAVRIDES, SCHOOL OF MEDICINE, EUC

Chairs: Prof. Dr. Marios Pantzaris, Dr. Alexis Papadopoulos, Dr. Dimitrios Vomvas

Format: 10-minute "flash" presentations followed by 20-minute moderated debate (interactive discussion)

14:50 – 15:00 **"Interventional Cancer Pain Management: Beyond Opioids, Beyond Boundaries"**



Assistant Prof. Dr. Periklis Zavrides
Anesthesiologist, Algologist, School of Medicine, European University Cyprus, Cyprus Pain Clinic

15:00 – 15:10 **"A Practical Approach to Pharmacological Management of Cancer Pain"**



Dr. Marouli Diamantina
Anesthesiologist, Intensivist, German Oncology Center, Limassol, Cyprus

15:10 – 15:20 **"Optimal cancer pain management: let's collaborate. A medical oncologist's perspective"**



Dr. Pantelis Kountourakis
Director of the Oncology Department, Mediterranean Hospital, Limassol, Cyprus

15:20 – 15:40 **20-minute moderated debate (interactive discussion)**

Pfizer

SESSION Xa

SENDOCRINOLOGY, DIABETES, INTERNAL MEDICINE:
THE MAGNITUDE OF AN UNRESOLVED PROBLEM, ADVANCES AND NEW TREATMENT APPROACHES

Chairs: Dr. Giorgos Moustras, Dr. Argyrios Tsakalis, Dr. Ioannis kyriazis **(HYBRID)**

15:40 – 15:55 **"GLP-1, SGLT2, and Beyond: Redefining Diabetes Care in Internal Medicine"**



Dr. Nadia Othonos
specialist in Endocrinology and Diabetes, The Care Medical Institute.

15:55 – 16:10 **"Clinical and pathophysiological relevance of thyroid dysfunction to the development and progression of MASLD: The role of Resmetirom"**



Professor Dr. Erifili Hatziagelaki
Professor Erifili Hatziagelaki, MD, PhD; Professor of Internal Medicine and Metabolic Diseases, School of Medicine, National and Kapodistrian University of Athens, Greece
Clinical Professor of Internal Medicine and Metabolic Diseases, European, University Cyprus, Nicosia, Cyprus
Visiting Professor, German Diabetes Center (DDZ), Heinrich Heine, University Düsseldorf, Germany

16:10 – 16:25 **"The Future of Endocrinology: Obesity, Diabetes and the Quest for Healthy Longevity"**



Assoc. Prof. Dr. Polys Evripidou (HYBRID)
Consultant Diabetologist, Limassol, Cyprus; School of Medicine University of Cyprus, Nicosia, Cyprus

16:25 – 16:40 **"D-dimer assay: over-testing in Venous thromboembolism (VTE)?"**



Professor Dr. Christos Savvopoulos (HYBRID)
Prof. of Internal Medicine, Aristotle University of Thessaloniki, Director of 1st Medical Propedeutic Dept of Internal Medicine & Stroke Unit, Excellence Center of Hypertension, AHEPA University Hospital

Ophthalmos
Research & Educational Institute

SESSION Xb

Chairs: Dr. Panayiotis Economides, Dr. Doros Loizou, Dr. Michalis Hinis

16:40 – 17:00 **KEYNOTE SPEAKER**



Professor Dr. Arne Astrup (HYBRID)
Obesity Specialist, University of Copenhagen

"From discovery of GLP-1 as a satiety hormone to GLP-1-based medications in the clinical management of cardiometabolic diseases and cancer"

17:00 – 17:15 **"Anti-Obesity Medications: Current Options and Future Developments"**



Assoc. Prof. Dr. Stavroula A. Paschou
Assoc. Professor of Endocrinology, Head of Endocrine Unit and Diabetes Center, Department of Clinical Therapeutics, Alexandra Hospital, School of Medicine, National and Kapodistrian University of Athens, Athens, Greece

17:15 – 17:35 **KEYNOTE SPEAKER**



Professor Dr. Peter Rossing
Head of Clinical Translational Research, Steno Diabetes Center Copenhagen (SDCC) Herlev, Professor of Endocrinology, University of Copenhagen, Denmark

"Bridging Kidney and Cardiac Health from Type 2 Diabetes to Type 1 Diabetes: Semaglutide as the New Pillar of Diabetic Kidney Disease Treatment"

Announced By: Prof. Dr. Ioannis Patrikios

17:35 – 18:15 **HONORARY KEYNOTE SPEAKER**



Prof. Dr. Drs. h.c. Emmanuelle Charpentier, ForMemRS
Nobel Laureate 2020
Max Planck Unit for the Science of Pathogens, Nobel in Chemistry 2020

"The bacterium as inventor: microbial biology as an innovation pipeline"

18:05 – 18:30 **Coffee and refreshments**

PAPAELLINAS GROUP

ΥΓΕΙΑ | ΟΜΟΡΦΙΑ | ΕΥΕΞΙΑ

ΠΑΠΑΕΛΛΗΝΑΣ ΟΜΙΛΟΣ

Αποστολή μας, να κάνουμε
όλο και περισσότερους ανθρώπους
να ζουν και να νιώθουν καλύτερα.



www.papaellinasgroup.com.cy

14th International Multithematic Scientific Bio-Medical Congress (IMBMC)

"Bio-medical Scientific Cyprus"

SATURDAY, 21 NOVEMBER 2026

Program

08:00 – 08:30 **Registration**



Cardiology sessions In Memoriam: of the cardiology legend Professor Dr. Eugene Braunwald who passed away on April 22, 2026.

10:30
Room: OMEGA

GO TO APENDIX I FOR THE HANDS-ON HIGHLY SPECIALIZED WORKSHOP

ADVANCED ECHOCARDIOGRAPHIC TECHNIQUES

Coordinator: Clin. Prof. Dr. Constantinos Papadopoulos

SESSION XI
SATELLITE BY ΚΟΑ

THE SESSION WILL BE OFFERED IN GREEK LANGUAGE

PRE-ATHLETICS MEDICAL & CARDIOLOGICAL CHECKUP

Χορηγούνται 3 μονάδες Συνεχιζόμενης Ιατρικής Εκπαίδευσης από την Επιτροπή ΣΙΕ/ΣΕΑ του ΠΙΣ

ΚΥΠΡΙΑΚΟΣ ΟΡΓΑΝΙΣΜΟΣ ΑΘΛΗΤΙΣΜΟΥ
ΑΝΩΤΑΤΟ ΣΥΜΒΟΥΛΙΟ ΥΓΕΙΑΣ ΑΘΛΗΤΩΝ
ΠΑΓΚΥΠΡΙΟΣ ΙΑΤΡΙΚΟΣ ΣΥΛΛΟΓΟΣ

5^{0} ΕΚΠΑΙΔΕΥΤΙΚΟ ΣΕΜΙΝΑΡΙΟ ΓΙΑ ΤΟΝ ΠΡΟΑΘΛΗΤΙΚΟ ΙΑΤΡΙΚΟ & ΚΑΡΔΙΟΛΟΓΙΚΟ ΕΛΕΓΧΟ ΓΙΑ ΤΗΝ ΕΚΔΟΣΗ ΤΟΥ ΔΕΛΤΙΟΥ ΥΓΕΙΑΣ

ΣΑΒΒΑΤΟ 21 ΝΟΕΜΒΡΙΟΥ 2026, 09:00-12:40

Τόπος εκδήλωσης: Αμφιθέατρο, Ευρωπαϊκό Πανεπιστήμιο Κύπρου, Λευκωσία
Γλώσσα Σεμιναρίου: Ελληνική

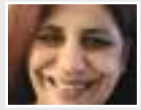
Υψηλή Εποπτεία: Κυπριακός Οργανισμός Αθλητισμού (ΚΟΑ), Ανώτατο Συμβούλιο Υγείας Αθλητών (ΑΣΥΑ), Παγκύπριος Ιατρικός Σύλλογος (ΠΙΣ)

Επιστημονική Οργάνωση: Επιστημονική Επιτροπή ΑΣΥΑ & Επιστημονική Επιτροπή ΠΙΣ
- Δρ. Πέτρος Αγαθαγγέλου, Πρόεδρος Επιστημονικής Επιτροπής ΑΣΥΑ & Πρόεδρος ΠΙΣ
- Δρ. Λοΐζος Αντωνιάδης, Μέλος Επιστημονικής Επιτροπής ΑΣΥΑ, Πρόεδρος Κυπριακού Ινστιτούτου Καρδιολογίας Έρευνας και Μελέτης Κληρονομικών Καρδιαγγειακών Νοσημάτων (ΚΙΚΕΜΜ)

ΠΡΟΓΡΑΜΜΑ

08:30 – 09:00 **Προσέλευση - Εγγραφές** (συστήνεται να γίνεται ηλεκτρονική προεγγραφή στην ηλεκτρονική διεύθυνση: **mesiti.n@sportskoa.org.cy**

09:00 – 11:00 **ΠΡΩΤΗ ΕΝΟΤΗΤΑ**



Προεδρείο:
Δρ. Ήρα Μούστρα Ηρακλέους, πρώην Πρόεδρος Καρδιολογικής Εταιρείας Κύπρου
Δρ. Ελευθέριος Νικολαΐδης, Καρδιολόγος
Δρ. Φοίβος Χριστοφίδης, Παθολόγος

09:00 – 09:20 **Προσφωνήσεις**



Δρ. Πέτρος Αγαθαγγέλου, Πρόεδρος Ανώτατου Συμβουλίου Υγείας Αθλητών (ΑΣΥΑ)



Ιωάννης Ιωάννου, Πρόεδρος Κυπριακού Οργανισμού Αθλητισμού (ΚΟΑ)

09:20 – 09:45 **(15 λεπτά παρουσίαση,10 λεπτά σχόλια & ερωτήσεις)**



Δελτίο Υγείας, Πληροφορίες που λαμβάνονται από το Ατομικό, το Κληρονομικό Ιστορικό και την Κλινική εξέταση. Πρακτικά παραδείγματα από την αξιολόγηση των ΔΥ του ΚΟΑ.

Εισηγητής: Δρ. Λοΐζος Αντωνιάδης MD PhD, Αν. καθηγητής Καρδιολογίας Ευρωπαϊκού Πανεπιστημίου Κύπρου.

Σχολιαστές: Δρ. Λευτέρης Καλλέργης Επεμβατικός Καρδιολόγος Πανεπιστημιακό Νοσοκομείο Κρήτης, Δρ. Σωτήρης Αντύπας Καρδιολόγος, Δρ.Κωνσταντίνος Μακρίδης Καρδιολόγος, Δρ. Πρόδρομος Μιχαήλ Καρδιολόγος, Δρ. Τατιάνα Μιχαηλίδου Καρδιολόγος, Δρ. Ιωάννης Στεφάνου Καρδιολόγος, Δρ.Παναγιωτίδης Ιωάννης Καρδιολόγος

09:45 – 10:10 **(15 λεπτά παρουσίαση,10 λεπτά σχόλια & ερωτήσεις)**



Ποια είναι τα Κληρονομικά Καρδιαγγειακά Νοσήματα και πώς σχετίζονται με τον Αιφνίδιο Θάνατο των Νέων και Αθλητών.

Εισηγητής: Δρ. Άρης Αναστασάκης MD PhD, Consultant Cardiologist, Scientific Director Unit of Inherited and Rare Cardiovascular Diseases. Onasis Cardiac Surgery Center, Athens.

Σχολιαστές: Δρ. Μάριος Ιωαννίδης Καρδιολόγος ΓΝΛευκωσίας, Δρ. Βιολέττα Αναστασιάδου Ιατρός Γενετικής, Καραισκάκιο Ίδρυμα, Δρ.Μαρία Καρακύριου Καρδιολόγος π. Γ.Γ.ΚΕΚ, Δρ.Ηλίας Παπασσάβας Καρδιολόγος Αρρυθμιολόγος, Δρ.Βίκη Ζένιου Καρδιολόγος, Δρ.Σαββίδης Κώστας Καρδιολόγος, Δρ.Πούλλος Μιχαήλ Καρδιολόγος.

10:10 – 10:35 (15 λεπτά παρουσίαση,10 λεπτά σχόλια & ερωτήσεις)



Αξιολόγηση του ΔΥ από την σκοπιά του Παθολόγου και του Ιατρού Γενικής Ιατρικής Παρουσίαση περιστατικών από το αρχείο του ΚΟΑ.

Εισηγητής: Δρ Γεώργιος Μιλτιάδους, Ειδικός Παθολόγος, Πρόεδρος Ιατρικού Συλλόγου Λευκωσίας Ιπποκράτης

Σχολιαστές: Δρ. Σπύρος Παπαιωάννου Δ/ντής Καρδιολογίας Ναυτικό Νοσοκομείο Αθηνών, Δρ. Κώστας Σχίζας Παθολόγος, Δρ. Κυριάκος Παναγή Παθολόγος, Δρ. Ανδρέας Ιωάννου Παθολόγος, Δρ. Ευρυπίδης Λοιζίδης Καρδιολόγος, Δρ. Αριάδνη Στυλιανού Καρδιολόγος, Δρ. Νίκος Μαρκαντώνης Καρδιολόγος, Δρ. Μάριος Λεμονιάτης Καρδιολόγος, Δρ. Παντελής Γεωργίου Καρδιολόγος, Δρ. Ανδρέας Καλλής Παθολόγος

10:35 – 11:00 **Διάλειμμα**

11:00 – 12:15 **ΔΕΥΤΕΡΗ ΕΝΟΤΗΤΑ**





Προεδρείο:

Δρ. Γεωργία Δανιήλ, Καρδιολόγος, Πρόεδρος Ο.Ε. Καρδιολογικής Εταιρείας Κύπρου

Δρ. Αργύρης Κυθρεώτης, Καρδιολόγος-Παιδοκαρδιολόγος

Δρ. Πατρίκιος Ιωάννης, Καθηγητής Ιατρικής Σχολής Ευρωπαϊκού Πανεπιστημίου Κύπρου

11:00 – 11:35 (25 λεπτά παρουσίαση,10 λεπτά σχόλια & ερωτήσεις)



Αξιολόγηση του ΗΚΓ στα μικρά παιδιά και εφήβους. Παρουσίαση περιστατικών.

Εισηγητής: Δρ. Μαργαρίτα Μπαρτζώκα, Παιδοκαρδιολόγος

Σχολιαστές: Δρ. Ανδρέας Ρουσουνίδης Παιδοκαρδιολόγος, Δρ. Παναγιώτης Ζαβρός Παιδοκαρδιολόγος, Δρ. Αντώνιος Ιωσήφ Παιδοκαρδιολόγος, Δρ. Μαρία Παπαφυλακτού Παιδοκαρδιολόγος, Δρ. Στέλιος Καρβουνάρης Καρδιολόγος, Δρ. Χριστόδουλος Κοντός Καρδιολόγος, Δρ. Χατζησάββα Ουρανία Καρδιολόγος

PMI SCIENCE
PHILIP MORRIS INTERNATIONAL

11:35 – 12:10 (25 λεπτά παρουσίαση,10 λεπτά σχόλια & ερωτήσεις)

Ηλεκτροκαρδιογραφικός (ΗΚΓ) έλεγχος στους αθλητές. Ποια ΗΚΓραφικά ευρήματα είναι φυσιολογικά και ποια χρήζουν περαιτέρω αξιολόγησης. Παγίδες στην αξιολόγηση του ΗΚΓ. Παρουσίαση περιστατικών

Εισηγητής: Δρ. Άρης Αναστασάκης MD PhD, Consultant Cardiologist, Scientific Director Unit of Inherited and Rare Cardiovascular Diseases. Onasis Cardiac Surgery Center, Athens.

Σχολιαστές: Δρ. Γεώργιος Ανδρικόπουλος Δ/ντής Καρδιολογίας Νοσοκομείο Ερρίκος Ντυνάν Αθήνα, Δρ. Ευαγόρας Νικολαίδης Καρδιολόγος, Δρ. Μάρκος Αγαθαγγέλου Καρδιολόγος, Δρ. Παντελής Κουρτελλάρης, Ηλεκτροφυσιολόγος, Δρ. Νίκος Καρπέττας Καρδιολόγος, Δρ. Ιωσήφ Μουτήρης Καρδιολόγος π. Δ/ντής Γ.Ν.Πάφου. Δρ. Ανδρέας Ανδρέου Επεμβατικός Καρδιολόγος, Δρ. Αντρέας Τρύφωνος π. Δ/ντής Καρδιολογίας Γ.Ν.Λεμεσού.


Δρ. Γεώργιος Ανδρικόπουλος


Δρ. Σπύρος Παπαιωάννου


Δρ. Λευτέρης Καλλέργης

12:15 **ΤΕΛΟΣ ΣΕΜΙΝΑΡΙΟΥ**
Τα Πιστοποιητικά Παρακολούθησης και οι Μονάδες Συνεχιζόμενης Ιατρικής Εκπαίδευσης από την Επιτροπή ΣΙΕ/ΣΕΑ του ΠΙΣ θα αποσταλούν ηλεκτρονικά στους συμμετέχοντες .

12:15 – 12:45 **Lunch Buffet**
POSTER SESSION

Οδοντοτεχνικό Εργαστήριο
Ψηφιακής Τεχνολογίας
ΘΕΟΔΟΣΙΟΣ ΧΑΤΖΗΤΤΟΦΗΣ
Σταδίου 51, Στρόβολος, ΤΚ 2058, Λευκωσία - Κύπρος
Τηλ. +357 22 316568 - Κιν. 99316101
Skype: xteodentCyprus
e-mail: xteodentcy@gmail.com

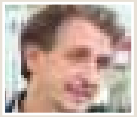
SESSION XII:
INTERRACTIVE WORKSHOP IV
"AMYLOIDOSIS: THE MULTIDISCIPLINARY FRONT"

Coordinated by: Vis. Prof. Dr. Filippos Triposkiadis and Clin. Prof. Dr. Petros Agathaggelou, Georgios M. Georgiou

Chairs: Prof. Dr. Panagiotis Avraamides, Prof. Dr. Filippos Triposkiadis, Clin. Assist. Prof. Dr. Constantinos Economides

Format: 10-minute "flash" presentations followed by 2 x 15-minute moderated debate on a difficult case study

12:45 – 12:55 **"Amyloidosis Without Borders: Lessons for Haematologists, Cardiologists and Beyond"**



Clin. Prof. Dr. Manolis Nikolousis
Consultant Hematologist and Bone Marrow Transplantation, Program Director for Acute Leukemia and stem cell transplantation at , Yas Clinic. Abu Dhabi

12:55 – 13:05 **"Guiding Treatment Decisions in Cardiac Amyloidosis: Evidence-Based Approaches and Emerging Therapies"**



Clin. Assoc. Prof. Dr Andreas Synetos
School of Medicine, European University Cyprus, Interventional Cardiologist at Hippokrateion Hospital and Consultant at the First Department of Cardiology at the Medical School of Athens, Greece

13:05 – 13:20 **"Role of Invasive Cardiology in Cardiac Amyloidosis: Novel Techniques, Device Therapy, and Procedural Considerations. When and How to Intervene?"**



Professor Dr. Konstantinos Toutouzas
National and Kapodistrian University of Athens, Head of the Department of Structural Cardiopathies and Cardio-oncology, First University Cardiology Clinic, Hippocrates Hospital

HOSPITAL CASE PRESENTATIONS

Commendatores: Clin. Prof. Dr. Evagoras Economides, Dr. Theodoros Christodoulides and all session speakers

Format: 10-minute "flash" presentations followed by 2 x 15-minute moderated debate on a difficult case studies

13:20 – 14:00 **CASES FOR PRESENTATION AND DISCUSSION**



CASE STUDY IN LARISSA' S UNIVERSITY HOSPITAL
"Difficult Case Presentation by Larissa' s University Hospital"
Assist. Prof. Dr. Andreas Xanthopoulos
University General Hospital of Larissa, Larissa, Greece



CASE STUDY IN NICOSIA'S GENERAL HOSPITAL
"Case Presentation by Nicosia s' General Hospital: delayed diagnosis for otherwise not that difficult incident"
Dr. Marios Ioannides
Consultant Cardiologist and Assistant Director of the Cardiology Department, Nicosia General Hospital, Cyprus

SESSION XIII:
"PRECISION MEDICINE IN CARDIOMYOPATHY"

Coordinated by: Prof. Dr. Filippos Triposkiadis

ENCOUNTER WITH THE PIONEERS METHODS & CASE STUDIES

Chairs: Dr. Nicos Eteokleous, Clin. Ass. Prof. Dr. Hera Heracleous, Clin. Prof. Dr Petros Agathaggelou

A LAST MIN INSERT: A NOTE FOR PREVENTION

14:00 – 14:15 **"Lipid Management After Stroke: From LDL-C Lowering to Emerging Cardiometabolic Risk Factors"**



Professor Dr. Haralampos Milionis
Professor of Internal Medicine, Head of the 1st Division of Internal Medicine; Department of Internal Medicine; Faculty of Medicine, School of Health Sciences, University of Ioannina

"PRECISION MEDICINE IN CARDIOMYOPATHY"

14:15 – 14:30 **"Targeting the Sarcomere: Do Myosin Inhibitors End the Need for Septal Myectomy"**



Clin. Assoc. Prof. Dr Andreas Synetos
School of Medicine, European University Cyprus, Interventional Cardiologist at Hippokrateion Hospital and Consultant at the First Department of Cardiology at the Medical School of Athens, Greece

14:30 – 14:45 **"Digital Twins and AI Mapping: The Future of Non-Invasive Tissue Biopsy"**



Dr. Aikaterini Christidi (HYBRID)
EACVI Level 3 Certified in Cardiovascular Magnetic Resonance (CMR); Head of the Cardiovascular Magnetic Resonance Department General Clinic of Thessaloniki, Greece

14:45 – 15:00 **KEYNOTE SPEAKER**



Professor Dr. Antonio Pelliccia (HYBRID)
Expert in Sports Medicine, School of Sport Medicine. University of Rome and L'Aquila
"Exercise and Sport in patients with hypertrophic cardiomyopathy "

15:00 – 15:15 **"The Status of Gene Therapy in Hereditary Cardio-myopathies: The Clinician's View"**



Professor Dr. Filippos Triposkiadis
Ex. Director of the Dept. of Cardiology of the Larissa University Hospital; School of Medicine, Larissa, Greece, Visit. Prof. School of Medicine and MSc on Heart Failure and Cardiomyopathies Coordinator, European University Cyprus, Cyprus

15:15 – 15:30 **"Artificial intelligence and digital technology in cardiovascular imaging"**



Clin. Prof. Dr. Constantinos Papadopoulos
Director of the 2nd Cardiology Clinic, Korgialenio-Benakio Hospital, Head of the Echocardiography Laboratory and the Heart Failure Clinic, Co-Chair of the European Committee for Transesophageal Echocardiography Examinations
"Korgialenio-Benakio, Hellenic Red Cross" General Hospital of Athens, Athens, Greece

SESSION XIV:
HEART FAILURE
CARDIOLOGY TODAY AND WHERE THE FUTURE TAKES US
FOCUS ON TODAY TO ENLIGHTEN THE FUTURE
"PERSONALISING CARDIOVASCULAR CARE"
ENCOURAGING PATIENTS THROUGH TAILORED TREATMENTS TO IMPROVE OUTCOMES, REDUCE RISK, AND REDEFINE THE STANDARD OF CARE

Chairs: Dr. Stelios Hadjistyllis, Dr. Costakis Aroditis, Prof. Dr. Konstantinos Makaritsis

15:40 – 15:50 **"Expansion of ARNI and MRA Therapy across the LVEF Spectrum"**



Professor Dr. Katerina Naka
Professor of Cardiology at Faculty of Medicine, School of Health Sciences, University of Ioannina,
2nd Department of Cardiology, University Hospital of Ioannina, Greece

15:50 – 16:00 **"From Weight Loss to Cardioprotection: Tirzepatide's Role in the HF Treatment"**



Visit. Assoc. Prof. Dr. Elias Tsougkos
Associate Professor of Cardiology, European University Cyprus
Director, 6th Cardiology Department, Hygeia Hospital, Athens, Greece, Head Cardiologist, Hellenic Olympic Committee

16:00 – 16:10 **"Hypertension with comorbidities: the usual suspect for heart failure with preserved ejection fraction"**



Adj. Prof. Dr. Andreas Pittaras
Clinical Hypertension Specialist ESH, George Washington University, Washington DC, USA
Adjunct Professor, School of Medicine, European University Cyprus

16:10 – 16:20 **"Revascularization in isshaemic cardiomyopathy: where do we stand?"**



Professor Dr. Lambros Michalis
Professor of Cardiology in the School of Medicine, University of Ioannina, Greece; Director of University Hospital of Ioannina 2nd Department of Cardiology; President of the UEMS Cardiology Section. **President of Hellenic Society of Cardiology.**

16:20 – 16:30 **"Controversies in Heart Failure"**



Professor Dr. Gerasimos Filippatos
Professor and Chairman of the Department of Cardiology and Director of the Heart Failure and Cardioncology Unit at the Attikon University Hospital, Athens, Greece.

HOSPITAL CASE PRESENTATIONS

Commendatores: Clin. Prof. Dr. Evagoras Economides, Dr. Theodoros Christodoulides and all session speakers

Format: 10-minute "flash" presentations followed by 2 x 10-minute moderated debate on a difficult case studies

16:30 – 17:00 **Nicosia General Hospital:** Presentation of a difficult case



Dr. Kimon Myrianthopoulos
Cardiology Clinic, Nicosia General Hospital

"Old Myocardial Infarction" to Arrhythmogenic Cardiomyopathy: Unravelling the Cause of Syncope, Ventricular Tachycardia and Heart Failure



Pafos Hospital: Presentation of a difficult case

Dr. Angeliki Mouzarou
Consultant Cardiologist
Head of Cardiology Dept., Paphos GH, State Health Services Organization Cyprus

"Four Coronary Events Despite Intensive LDL Cholesterol Lowering: The Double Hit of Familial Hypercholesterolaemia and Elevated Lipoprotein(a)"

HIGHLIGHTS
KEYNOTE LECTURES BY THE SPECIALISTS

Chairs: Clin. Prof. Dr. Petros Agathaggelou, Prof. Dr. Konstantinos Toutouzas, Adj. Prof. Dr. Charalambos Grassos

17:00 – 17:15 **KEYNOTE SPEAKER**



Professor Dr. Randall C. Starling
Professor of Medicine; Cleveland Clinic Lerner College of Medicine of the Case Western Reserve University, Kaufman Center for Heart Failure Treatment and Recovery, Cleveland Clinic Foundation, Cleveland, Ohio USA

"Guideline Directed Medical Therapy in Patients with severe, advanced heart failure"

17:15 – 17:35 **KEYNOTE SPEAKER**



Professor Dr. John Floras
Professor of Medicine, University Health Network and Sinai Health Division of Cardiology, University of Toronto, Canada

"Sleep-disordered breathing in heart failure"

17:35 – 17:55 **KEYNOTE SPEAKER**



Professor Dr. CeciliaLinde
President Elect the European Society of Cardiology 2024-2026 Executive Editor for European Heart Journal Professor of Cardiology at Karolinska Institutet, Senior Consultant at Heart, Vascular and Neurology Theme, Karolinska University Hospital

"From CRT to Conduction System Pacing: Redefining Cardiac Resynchronization in the Era of Precision Heart Failure Care"

SESSION XV: ARRHYTHMIAS

MEETING WITH THE EXPERTS

WAYS OF TREATMENT FOR PROPER THERAPY: IS THERE SUCH A THING?
CASES DISCUSSION

Chairs: Dr. Eleftherios Nicolaides, Dr. Ilias Papassavas

Format: a 4 x 15-minute moderate debate on difficult cases study.
(7 min presentation each followed by 8 min debate)

17:55 – 18:10 **"Difficult case study"**



15-minute moderated debate

Professor Dr. Vasilis Vasilikos
Aristotle University of Thessaloniki, Director of 3rd Cardiology Clinic Cardiology Department Hippokrateion General Hospital, Thessaloniki

18:10 – 18:25 **"Difficult case study"**



15-minute moderated debate

Dr. Pantelis Kourtellaris
Cardiologist-Electrophysiologist Consultant
American Medical Center- American Heart Institute, Nicosia, Cyprus

18:25 – 18:40 **"Difficult case study"**



15-minute moderated debate

Dr. George K. Andrikopoulos
President of the Hellenic Arrhythmia Institute, Director of Cardiology and the Department of Electrophysiology and Pacing, Henry Dunant Hospital

18:40 – 18:55 **"Diagnostic Electrophysiology study: how far should we go"**



5-minute moderated debate

Professor Dr. Charalampos Kriatseli
Head of Electrophysiology, Vivantes Klinikum Neukölln, Berlin, Germany and Areteion Hospital, Nicosia, Cyprus

Commendatores: Clin. Prof. Dr. Petros Agathaggelou, Prof. Dr. Elias Koutsiogiorgis (NU)

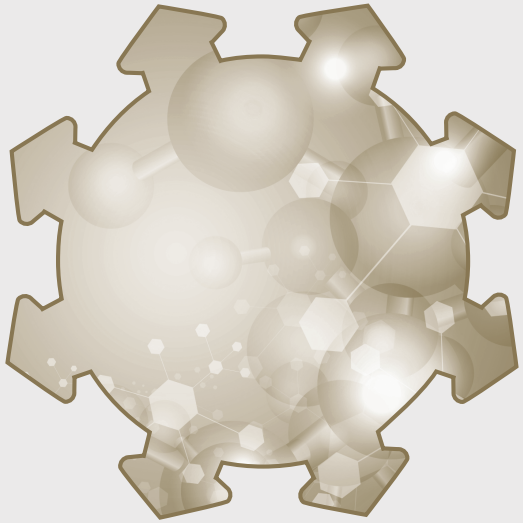
18:55 – 19:00 **POSTER AWARDS**
Congress Poster Award Committee:
Prof. Dr. Costantinos Dimas
School of Medicine, University of Crete
Prof. Dr. Kyriakos Kypreos
School of medicine, University of Patra

Prof. Dr. Ioannis Patrikios Closing Remarks

ophthalmos
Research & Educational Institute

PROTON
MEDICAL

Juris
Advocates
GEORGIADES
& ASSOCIATES
Advocates & Legal Consultants



Bio-medical Scientific Cyprus

WORKSHOPS

WORKSHOPS

THE STAR WORKSHOP*

EVERY DAY BETWEEN 10:00 TO 13:00

MEET THE GREATEST MINDS IN THE WORLD

All delegates can have the ability and access to meet with the invited scientists for face-to-face discussion and possible networking.

Limited Seats: Participation only by Pre- Registering

ENERGON

PMI SCIENCE
PHILIP MORRIS INTERNATIONAL

APENDIX I

SPONSORED BY PHATISCO / GENERAL ELECTRIC

PHADISCO GE HealthCare

SATURDAY NOVEMBER 21ST
10:30 – 13:30

HANDS-ON WORKSHOP I

HIGHLY SPECIALIZED

ADVANCED ECHOCARDIOGRAPHIC TECHNIQUES

THREE HOURS "HANDS ON – HOW TO DO" COURSE ON WORKSTATIONS



Coordinating Trainer:
Dr. Constantinos H. Papadopoulos

Director of the 2nd Cardiology Clinic, Korgialenio-Benakio Hospital, Head of the Echocardiography Laboratory and the Heart Failure Clinic, Co-Chair of the European Committee for Transesophageal Echocardiography Examinations

	Myocardial deformation – Speckle Tracking Imaging
12:00 - 12:45	Myocardial Strain and Work of the Left ventricle
12:45 - 13:30	Myocardial Strain of the Right ventricle and Left atrium

	Three-dimensional echocardiography
13:30 - 14:15	3D IMAGING OF CARDIAC CHAMBERS (LV, RV, LA)
14:15 - 15:00	3D Imaging of cardiac valves (MV and TV)

Lab Supplies Scientific

PARALLEL MEETING SESSIONS

PARALLEL WORKSHOP II

(Auditorium: Beta)

WELLBEING FUTURES

MENTAL HEALTH & HEALTHY AGEING FOR 2050 AND BEYOND

A one-day futures-oriented roundtable within the 14th IMBMC

20 November 2026 · European University Cyprus · Nicosia, Cyprus

Dates: Thursday 19 November and Friday 20 November 2026
Host venue: European University Cyprus (EUC), Nicosia, Cyprus
Parent events: 14th International Multithematic Bio-Medical Congress (IMBMC) — 19–21 November 2026
Title: Wellbeing Futures: Mental Health & Healthy Ageing for 2050 and Beyond
Organisers: Nordic Wellbeing Academy (NWA) · European Health Futures Forum (EHFF) · Cambridge Medical Academy

NOVEMBER 19

ESession 0

School of Medicine, Lecture Room

(60 min) **Welcome to Cyprus**
Global Mental Health Perspectives

Speakers from the global OHOR community presents

Facilitated by: Lars Münter, Takis Kotis

NOVEMBER 20

09:30 – 10:15 **Session 1**

(Caltura Center Auditorium) **Main Track Keynote Session**

PHADISCO
Quality Healthcare

10:30 – 11:45 **Session 2**
(Auditorium B) **Round Table A: Mental Health Futures – In Europe and Beyond**

(75 min) Facilitated by: Lars Münter

Thematic focus
How can mental health systems - across Europe and beyond - move from crisis response to genuine prevention and community resilience for our youth? What role do psychology, psychotherapy, health literacy, emotional competence, and cross-cultural knowledge exchange play in building the mental health infrastructure of 2050?

Scene-setting framings (7 minutes each)
Framing 1: EU-PROMENS perspective — insights from the multidisciplinary mental health training programme on what works across settings and populations; reflections on the Danish Training Programme with 200 sign-ups and 130 participants.

Framing 2: Cyprus Institute for Emotion-Focused Therapy (CiEFT) / ISEFT perspective — the evidence base for emotion-focused therapeutic approaches and how these can be embedded in community mental health systems at scale.

12:00 – 13:35 **Session 3**
(Auditorium B) **Round Table B: Healthy Ageing - Global Knowledge sharing**

(75 min) Facilitated by: Lars Münter

Thematic focus
As populations across Europe and the Belt and Road age at unprecedented speed, how do we build health and care systems - and social environments - that support not just longer life, but genuinely flourishing later years? How do mental health, social connection, community design, and technology intersect in the ageing experience?

Scene-setting framings (7 minutes each)
Framing 1: NCIO perspective — the clinical and epidemiological dimensions of healthy ageing; multimorbidity, mental-physical health intersections, and the longevity economy.

Framing 2: Nordic Wellbeing Academy / EHFF perspective — systems and foresight framing; what does a 2050 healthy ageing society look like, and what governance and community architecture does it require?

GE HealthCare

14:30 – 16:00 **Session 4**
(Anatomy Room) **Creative Futures Session - Visualising Wellbeing 2050**

(90 min) Facilitated by: Nina Sønderberg

Concept
This session brings Round Table participants - still energised from their deliberative conversations - into smaller, mixed groups to co-create visual scenario posters depicting possible futures for mental health and healthy ageing. The method draws on established foresight and scenar-io-building practice, adapted for a group with diverse professional backgrounds and cultural perspectives.

Facilitation approach
Nina Sønderberg (Nordic Wellbeing Academy / European Health Futures Forum; member, WHO/Europe Public Health Innovation Platform) will lead this session. Nina has extensive experience in co-design processes, futures facilitation, and creative knowledge translation. She will guide groups through:

- A brief provocation - three possible worlds of 2050, presented as vivid narrative sketches (hopeful, cautionary, and wild-card)
- Small group formation - deliberately cross-disciplinary and cross-cultural
- Facilitated scenario building - each group selects or invents their future and begins mapping its key features: what do systems, communities, relationships, and daily life look like?
- Visual poster creation - groups translate their scenario into a large-format visual poster, combining text, image, and metaphor
- Gallery walk and sharing - posters are displayed; groups briefly present their future world; cross-pollination and reflection

Output
A set of 5–8 scenario posters produced by participants — bridging disciplines and perspectives. These will be photographed, digitised, and shared as a visual output of the day

PROTON
MEDICAL

4. FACILITATOR & ORGANISER PROFILES



(Round Tables A & B)

Lars Münter

International Director, Nordic Wellbeing Academy (NWA)
Network Director, European Health Futures Forum (EHFF)

Lars Münter is a health communication and systems leadership specialist with an H-index of 15 and 40+ publications. He chairs the WHO/Europe Public Health Innovation Platform Domain 4 working group on Public Health Communication & Trust (2026–2028), a 19-organisation group spanning 14 countries. He participated in the EU-PROMENS Exchange Programme in Barcelona and co-led the Danish EU-PROMENS Training Programme with 200 sign-ups and 130 participants. He facilitates the Round Tables in his capacity as International Director of NWA and Network Director of EHFF.



Creative Futures Session

Nina Sønderberg

National Director, Nordic Wellbeing Academy (NWA)
Director, European Health Futures Forum (EHFF)

Nina Sønderberg is a co-design and systems leadership specialist with deep expertise in creative facilitation and futures practice. She participated in the EU-PROMENS Exchange Programme in Barcelona and co-led the Danish EU-PROMENS Training Programme. She is a member of the WHO/Europe Public Health Innovation Platform. Nina will lead the Creative Futures Session, guiding participants through a foresight scenario-building process to produce scenario posters that bridge disciplines and geographies.



Main Track Session

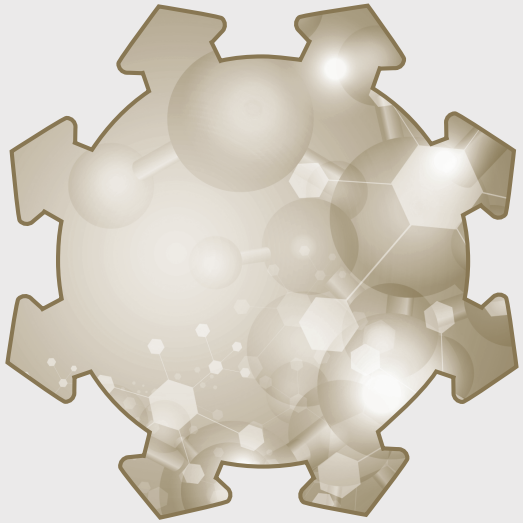
Takis Kotis

Facilitator
IMBMC Main Track Session

Takis Kotis is a member of the WHO/Europe Public Health Innovation Platform and brings extensive experience in facilitating high-level interdisciplinary health dialogues. He will chair the Main Track Keynote Session, facilitating interaction between the five keynote speakers and the broader IMBMC audience, and will synthesise the session's key themes as a bridge to the Round Tables.

I.Patrikios
Founder and Chairman
Congress Scientific committee

Ioannis Patrikios



Bio-medical Scientific Cyprus

Speakers CVs

Speaker's CV



Professor Dr. Drs. h.c. Emmanuelle Charpentier, ForMemRS

Nobel Laureate 2020
Max Planck Unit for the Science of Pathogens, Nobel in Chemistry 2020

Prof. Charpentier studied biochemistry, microbiology and genetics at the University Pierre and Marie Curie (now Sorbonne University), Paris, France and obtained her Ph.D. in microbiology for her research performed at the Pasteur Institute, Paris, France. She then pursued her scientific career in the United States, at The Rockefeller University, New York University Medical Center (now NYU Langone Health) and the Skirball Institute of Biomolecular Medicine (all in New York City, NY) and at St. Jude Children's Research Hospital (in Memphis, TN). Emmanuelle returned to Europe to establish her own research group as a guest and then assistant professor at the Institute of Microbiology and Genetics and as an associate professor at the Max F. Perutz Laboratories (now Max Perutz Labs) at the University of Vienna in Austria, where she habilitated in the field of microbiology. She was then appointed as associate professor at The Laboratory for Molecular Infection Medicine Sweden (MIMS, part of Nordic European Molecular Biology Laboratory (EMBL) Partnership for Molecular Medicine) at Umeå University in Sweden, where she habilitated in the field of medical microbiology and served as a visiting professor. Emmanuelle continued her career by founding and heading the Department of Regulation in Infection Biology at the Helmholtz Centre for Infection Research, Braunschweig and by becoming a full professor at the Medical School of Hannover in Germany. She was awarded an Alexander von Humboldt professorship, which she held in 2014 and 2015. Emmanuelle was then appointed scientific member of the Max Planck Society. She founded, was scientific director and head of the Department of Regulation in Infection Biology at the Max Planck Institute for Infection Biology in Berlin, Germany. Since 2016, Emmanuelle has been an honorary professor at Humboldt University. In 2018, she founded the Max Planck Unit for the Science of Pathogens (MPUSP), an independent institute affiliated with the Max Planck Society where she serves as both scientific and managing director. Since 2021, she has also been the head of administration of MPUSP.

Emmanuelle has laid the foundations for the development of a highly versatile and specific genome engineering and editing technology – CRISPR-Cas9 – which is revolutionizing life sciences, biotechnology and medicine. For her groundbreaking discovery and innovative research, she has received numerous prestigious international awards and honors, including the 2020 Nobel Prize in Chemistry. She is an elected member of many national and international scientific academies and has received honorary doctorates from several universities around the world. She co-founded CRISPR Therapeutics and ERS Genomics with Rodger Novak and Shaun Foy.



Professor Dr. John Floras

Professor of Medicine,
University Health Network and Sinai Health Division of Cardiology, University of Toronto, Canada

John Floras is Professor of Medicine at the University of Toronto and Director of Research for the University Health Network – Sinai Health Division of Cardiology. From 1995 to 1999 he was the Head of the Division of Cardiology at Mount Sinai Hospital. From 2004 to 2018, he held the Tier 1 Canada Research Chair in Integrative Cardiovascular Biology. In 1985, at the Toronto General Hospital, he established the first human microneurographic-cardiovascular laboratory in Canada. Since, he has investigated human circulatory and cardiac control mechanisms in human health and disease, with particular emphasis on the role of the autonomic nervous system, cardiovascular peptides, and sleep-related breathing disorders in heart failure. He served as Vice-Chair of the multinational CANPAP and ADVENT-HF trials, evaluating the cardiovascular benefits of treating sleep apnea when present in heart failure and co-edited both editions of 'Sleep Apnea: Implications for Cardiovascular and Cerebrovascular Disease' the first text devoted to this topic. His research discoveries appear in more than 275 original contributions. He is past President of the Canadian Hypertension Society and past Chair of the Board of the Banting Research Foundation, Canada's oldest medical research grant agency. In 2013 he was honoured to be recognized by the Hellenic Cardiological Society "for a lifetime of service to the Science of Medicine."



Professor Dr. Cecilia Linde

President Elect the European Society of Cardiology 2024-2026
Executive Editor for European Heart Journal
Professor of Cardiology at Karolinska Institute, Senior Consultant at Heart, Vascular and Neurology Theme, Karolinska University Hospital

Cecilia Linde is a Professor in Cardiology at Karolinska University Hospital and the Karolinska Institutet in Stockholm, Sweden. She was previously head of Cardiology at the Karolinska University Hospital. Her research focuses on devices such as cardiac resynchronization therapy (CRT) and epidemiology in heart failure. She was the principal or co-principal investigator of international Randomised controlled studies on cardiac resynchronisation therapy CRT for heart failure such as the MUSTIC, REVERSE, MIRACLE-EF and in cardiac contractility modulation trials such as the CCM HFpEF study. She has previously been the director of the Swedish Pacemaker and ICD registry. She is President of the European Society of Cardiology (ESC) 2026-2028. Professor Linde contributed to many guidelines of European Heart Rhythm Association and Heart Failure Association. She has authored over 400 papers, reviews and editorials covering a wide variety of topics and is the executive editor for the topic heart failure of European Heart Journal.Widely recognised for his contributions, he has received the UK Department of Health Gold National Clinical Excellence Award, the ESOT Senior Clinical Investigator Award, and an Honorary Doctorate from the University of Thessaloniki, alongside multiple international honorary memberships.

Speaker's CV



Professor Sir Dr. Peter Barnes

Professor of Thoracic Medicine
National Heart & Lung Institute

Peter Barnes is Professor of Thoracic Medicine at the National Heart and Lung Institute was Head of Respiratory Medicine at Imperial College London 1987-2017. He qualified at Cambridge and Oxford Universities (first class honours) and trained in London. He has published >1500 peer-review papers on asthma, COPD and respiratory pharmacology (h-index 236,>200,000 citations) and has written/edited >50 books. He is in the top 50 most highly cited researchers in the world and has been the most highly cited respiratory researcher in the world over the last 30 years. He was elected a Fellow of the Royal Society in 2007, the first respiratory researcher for >150 years. He has given several prestigious lectures, including Amberson Lecture at American Thoracic Society and Sadoul Lecture at European Respiratory Society. He has honorary degrees from universities of Ferrara, Athens, Tampere, Leuven, Maastricht and Coimbra and is a member of the Academy of Europe. He was President of the ERS in 2013/2014. He was awarded the Trudeau Medal by the ATS in 2020 and knighted in 2023 for services to respiratory science. Professor Barnes does research on the mechanisms and treatment of asthma and COPD and is currently working on the role of cellular senescence in chronic lung diseases.



Professor Dr. Peter Rossing

Head of Clinical and Translational Research, Chief Physician,
Steno Diabetes Center Copenhagen, Denmark

Peter Rossing is a clinician researcher devoted to complications in diabetes with focus on renal and cardiovascular complications. He obtained a specialist degree in internal medicine and endocrinology 2004. Since 2007 he has been a chief physician and manager of the Steno Diabetes Center Copenhagen research team dedicated to the research of micro-and macrovascular complications of diabetes.

Since 2012 Professor in diabetic angiopathy at University of Copenhagen. Peter Rossing has in epidemiological studies investigated key features of the pathophysiology of the diabetic kidney at different stages. He has identified several markers for development of diabetic nephropathy; making it possible to predict the individual risk. He has been involved in several intervention studies in patients with overt diabetic nephropathy aiming at improving the prognosis including DAPA-CKD, FIGARO-DKD, FIDELIO-DKD and FLOW.

He received the Minkowski prize in 2005 and the Golgi prize in 2016 both from the EASD and the E. Bierman award from ADA and the Hormon Medal from European Society of Endocrinology. Past president of the Danish Endocrine Society, and of the European Diabetic Nephropathy Study group and chairman of the Danish National Diabetes Registry and the Independent Research Fund Denmark-Health and Disease.identification, and developing educational needs. He has received three awards for his research from the BMA as well as a number of other substantial grants.



Professor Dr. Arne Astrup

Obesity Specialist
University of Copenhagen

Professor Arne Astrup, MD, DMSc., served as SVP and Executive management of the Novo Nordisk Foundation in Denmark and from 2020-5, head of their Department of Obesity and Nutritional Sciences.

Dr. Astrup is the former President of the World Obesity Federation and the founding Editor-in-Chief of Obesity Reviews. He currently operates as an independent consultant and serves on twelve Boards of Directors and International Scientific Advisory Boards across the nutritional, pharmaceutical, and philanthropic sectors.

Professor Astrup's scientific work has focused on physiology of appetite and energy regulation, and prevention and management of cardiometabolic diseases (CMD i.e. obesity, type 2 diabetes, and cardiovascular disease). In 1996, a team led by Arne at his department, in collaboration with Professor Jens Holst, discovered that GLP 1 functions as a satiety hormone in humans. He also played a pivotal role in Denmark's landmark 2004 decision to ban industrially produced trans fats in foods. Over the past 15 years, Arne has been a leading scientist in demonstrating that the food matrix exerts greater influence on cardiometabolic outcomes than single nutrients such as the fatty acid profile, and he has been a strong advocate for food based recommendations to prevent and manage CMD.

Professor Astrup has been a full professor since 1990, and Head of the Department of Nutrition, Exercise and Sports, University of Copenhagen, from 2012-20. Arne Astrup has published more than 1500 peer-reviewed papers and more than 1000 other academic publications. In 2018 Clarivate's (Web of Science) named him among the most cited researchers in the world. Current H-index is 117; Google Scholar H-index is 165 with 143.000 citations. He has supervised 48 PhD students to date.

Astrup was created Knight of the Order of Dannebrog in 1999 by Her Majesty Queen Margrethe II of Denmark, and Knight of the First Order of Dannebrog in November 2012. He was the recipient of the International Association for the Study of Obesity 2014 Willendorf Award, and the George Bray Outstanding Scientific Achievements Award in Obesity Research from The American Society for Nutrition 2024.

Speaker's CV



Professor Dr. Grigoris Gerotziafas

Director of the CaVITE Research Department (Cancer, Vessels, Biology and Therapeutics), Sorbonne University, Paris and Head of the Center for Cancer–Angiogenesis–Thrombosis and Haemostasis research group Saint Antoine University Hospital AP-HP, Paris France.

Professor at the Center for Translational Research and Education, Loyola University Chicago Stritch School of Medicine, and at the Thrombosis and Hemostasis Center, Sechenov University, Moscow, Member of the Russian Academy of Sciences – Thrombosis and Hemostasis Sector.

Professor Grigoris Gerotziafas received his MD from Aristotle University of Thessaloniki and his PhD in Cardiovascular Pharmacology from Sorbonne University. He is board-certified in Haematology and holds the Habilitation à Diriger la Recherche (HDR) from Sorbonne University.

He is Director of the Research Department Cancer, Vessels, Biology and Therapeutics (CaVITE) and Head of the Thrombosis Center at the Centre de Recherche Saint-Antoine (CRSA), INSERM UMRS_938, Faculty of Medicine, Sorbonne University, AP-HP. He also directs the postgraduate Master's programme Thrombosis, Haemostasis, Diagnosis and Therapy (DU T2H) at Sorbonne University.

Professor Gerotziafas is Affiliate Professor in the Department of Thrombosis and Hemostasis at Loyola University Stritch School of Medicine (Chicago, USA) and at the Thrombosis Center of I.M. Sechenov First Moscow State Medical University (Moscow, Russia). He is also a member of the Russian Academy of Sciences (Thrombosis and Hemostasis Sector).

An internationally recognised expert in thrombosis and haemostasis, his clinical practice and research focus on cancer-associated thrombosis, antithrombotic therapy, vascular complications of pregnancy and medically assisted reproduction, and the vascular mechanisms underlying subfertility. He leads several international research programmes, including studies on the procoagulant phenotype of cancer cells, fibrin clot shields and their role in resistance to anticancer therapy, AI-based risk assessment for cancer-associated thrombosis (COMPASS-CAT), biomarker-driven precision medicine (ROADMAP), and digital clinical decision-support systems in thrombosis and haemostasis (THALOS).

Professor Gerotziafas has contributed to numerous national and international clinical guidelines on the prevention and treatment of venous and arterial thrombosis. He is a member of the Scientific Working Groups Committee of the European Hematology Association and serves in leadership positions within the International Society on Thrombosis and Haemostasis, the European Thrombosis and Haemostasis Alliance (ETHA), the International Conference on Thrombosis and Haemostasis Issues in Cancer (ICTHIC), the VAS European Foundation on Angiology and Vascular Medicine, and the European and Mediterranean League Against Thromboembolic Disease (EMLTD).

He is Associate Editor of Research and Practice in Thrombosis and Haemostasis (RPTH) and serves on the editorial boards of several international journals. He is also Editor-in-Chief of the VAS European Book on Angiology/Vascular Medicine and Editor of the Practical Guide for the Prevention and Treatment of Venous Thromboembolic Disease. Professor Gerotziafas has authored more than 300 peer-reviewed scientific publications, books, and book chapters in thrombosis, haemostasis, vascular biology, and translational medicine.



Professor Dr. George Vassiliou

Professor of Haematological Medicine, Director of the Specialist Center for Research into Myeloid Cancer Prevention and co-lead of the Haematological Malignancies Virtual Institute at the University of Cambridge; Senior Faculty at the Cambridge Stem Cell Institute, Consultant Haematologist at Cambridge University Hospitals and Group Leader at the Cyprus Cancer Research Institute.

George Vassiliou is a Cypriot Haematologist based in the UK. His team studies the pre-clinical evolution, molecular pathogenesis, early interception and treatment of myeloid malignancies. Highlights of their work include the co-discovery of the phenomenon of clonal haematopoiesis, the description of its natural history, the mapping of its causes and consequences, the development of multiparameter predictive tools for quantifying individual risk of progression to myeloid neoplasia (MN-Predict) and the development of therapeutic strategies for prevention of such progression. They also contributed to our understanding of the pathogenesis of myeloid cancers, including through the development and study of bespoke murine models (including for NPM1, SF3B1, IDH1, DNMT3A and UTX mutations) and identified many novel vulnerabilities of acute myeloid leukaemia through the first genome-wide CRISPR screen in a human cancer, including several for which inhibitors have been developed or entered clinical studies (e.g. METTL3, SRPK1, KAT2A and KAT7). The team also developed the first genomic diagnostic tools for myeloid cancers based on DNA (Karyogene) and RNA (RNAmut) sequencing. Work in the Vassiliou lab is/was funded by Cancer Research UK, Wellcome, European Research Council, Blood Cancer United, Rising Tide Foundation for Clinical Cancer Research, Kay Kendall Leukaemia Fund, Blood Cancer UK, EMBO, Astrazeneca, UK Research & Innovation, National Institute for Health and Care Research and the NIH-OxCam Scholars Program. Professor Vassiliou's contributions have been recognised by his election to the Fellowship of the Academy of Medical Sciences and the European Hematology Association's Research Excellence Award in 2026.

Top 10 publications

1. McLoughlin MA et al. Telomere attrition becomes an instrument for clonal selection in aging hematopoiesis and leukemogenesis. Nat Genet 57, 2215-2225 (2025).
2. Gozdecka M et al. Mitochondrial metabolism sustains DNMT3A-R882-mutant clonal haematopoiesis. Nature 642, 431-441 (2025).
3. Gu M et al. Multiparameter prediction of myeloid neoplasia risk. Nat Genet 55, 1523-30 (2023).
4. Kar SP et al. Genome-wide analyses of 200,453 individuals yield new insights into the causes and consequences of clonal hematopoiesis. Nat Genet 54, 1155-1166 (2022).
5. Fabre MA et al. The longitudinal dynamics and natural history of clonal haematopoiesis. Nature 606, 335-342 (2022).
6. Gozdecka M et al. UTX-mediated enhancer and chromatin remodeling suppresses myeloid leukemogenesis through noncatalytic inverse regulation of ETS and GATA programs. Nat Genet 50, 883-894 (2018).
7. Abelson S et al. Prediction of acute myeloid leukaemia risk in healthy individuals. Nature 559, 400-404 (2018).
8. Barbieri I et al. Promoter-bound METTL3 maintains myeloid leukaemia by m(6)A-dependent translation control. Nature 552, 126-131 (2017).
9. McKerrell T et al. Leukemia-associated somatic mutations drive distinct patterns of age-related clonal hemopoiesis. Cell Rep 10, 1239-1245 (2015).
10. Vassiliou GS et al. Mutant nucleophosmin and cooperating pathways drive leukemia initiation and progression in mice. Nat Genet 43, 470-475 (2011).

Speaker's CV



Professor Dr. Evanthia Galanis

Founding Director of the Climate & Atmosphere Research Centre of Excellence (CARE-C) of the Cyprus Institute

Evanthia Galanis, MD, D.Sc., is a Professor of Oncology and the Sandra J. Schulze Professor of Novel Therapeutics at the Mayo Clinic where she serves as the Executive Dean of Development. She has also served as the Chair of the Department of Molecular Medicine and leader of the Virus and Gene Therapy Program of the Mayo Clinic Comprehensive Cancer Center. Dr. Galanis' clinical, translational and laboratory research focuses on the design of new therapeutic approaches in the treatment of cancer. A significant impetus for her research has been the translation of laboratory advances into clinical trials of novel therapeutics for cancer patients. She has served as principal investigator in multiple cancer gene therapy and virotherapy trials and has pioneered the first in human testing of oncolytic measles virus derivatives and oncolytic virus infected adipose tissue derived mesenchymal stem cells in patients with solid tumors. Dr. Galanis has also served as principal investigator in multiple phase II/III national and international cooperative trials testing novel therapeutics in brain tumors. She has served as the Chair of the Brain Tumor Committee of the cooperative group Alliance for Clinical Trials in Oncology (2012-2023) spearheading the development of a broad clinical trial portfolio including innovative trial designs and launching of the first individualized medicine neurooncology trials. Since 2023, Dr. Galanis is serving as the Alliance for Clinical Trials in Oncology Group Chair and Alliance Foundation President leading the conduct of multidisciplinary cancer control, prevention and treatment trials in a network of 1,500 academic and community sites. Dr. Galanis has also served as a Consultant for the Food and Drug Administration's Cellular, Tissue and Gene Therapies Advisory Committee and a Board member for the National Brain Tumor Society (NBTS). She is currently the co-Chair of NCI's GBM and Brain Metastases Interest Group and President of the Society for Neuro-Oncology. She is an elected member of the American Society for Clinical Investigation and has been inducted in the Association of American Physicians. She has received multiple honors and awards, including the Victor Levin Award of the Society for Neuro-Oncology and the Mayo Clinic Distinguished Investigator Award.

Speaker's CV



Professor Dr. Antonio Pelliccia

Expert in Sports Medicine

Senior consultant and Chief of Cardiology, Institute of Sports Medicine and Science, Italian National Olympic Committee; Professor of Sports Cardiology, Post-Graduate School in Cardiovascular Disease and Sports Medicine. Rome, Italy; Adjunct Professor in Sports Cardiology. Tufts University Medical School, Boston, MA.

Academic Appointments
Chief of Cardiology, Institute of Sport medicine and Science. Rome, Italy.
Founder and former chairman (2006-2008) of the Sports Cardiology Section of the European Society of Cardiology.
President, European Association of Cardiovascular Prevention and Rehabilitation (2014-6).
IOC medical Commission scientific consultant
Lecturer, at Master Course of Sport Cardiology, Georgetown University Hospital, London and University of Padua.
Former President, Italia Society of Sport Cardiology.

Publications

Author of >320 papers published on peer-reviewed journals (including New England Journal of Medicine, Journal American Medical Association, Circulation, Journal American College of Cardiology, American Journal of Cardiology, European Heart Journal, Medicine and Science in Sports and Exercise, International Journal of Sport Medicine).
Editor of the textbooks: The Athlete's Heart: on the Border Between Physiology and Pathology. Cardiology Clinics. Saunders Publ. Philadelphia 2007; and The Athlete's Heart
Casebook. Springer Publ. 2009, The textbook of Sport Cardiology, Oxford University Publisher, 2019.

Current h index 78

Speaker's CV



Professor Dr. Gerasimos Filippatos

Professor and Chairman of the Department of Cardiology and Director of the Heart Failure and Cardioncology Unit at the Attikon University Hospital, Athens, Greece.

Dr Filippatos is Professor of Cardiology at the National and Kapodistrian University of Athens and Chair of the Department of Cardiology and Director of the Heart Failure and Cardioncology Units at the Attikon University Hospital, Athens, GR. He was Dean of the School of Medicine, University of Cyprus. He studied Medicine at the University of Patras, GR, and earned his doctorate Cum Laude from the University of Athens. He completed his clinical training in Chicago, USA; and Cambridge, UK. He is past President of the Heart Failure Association of the European Society of Cardiology (ESC). He has served in the ESC Practice Guidelines Committee and the ACC/AHA Heart Failure Guidelines Writing Committee and as International Governor of the American College of Clinical Pharmacy (ACCP).

Dr Filippatos is Senior Consulting Editor for JACC-HF and has been Associate Editor of the International Journal of Cardiology and European Heart Journal; member of the Editorial Board and Guest Editor of many Cardiology and Critical Care Journals. He has published over 700 articles in peer-reviewed journals and authored more than 30 book chapters including the "Acute Heart Failure" chapter in Braunwald's 2011 edition and Oxford Desk Reference: Cardiology. Chair and/or Member of the Executive / Steering / Adjudication Committee of many major clinical trials. Honorary Member of many Cardiac Societies: i.e. French, Romanian, Hungarian. He is in the Thomson Reuters/Clarivate list of Highly Cited Researchers since 2015. Google Scholar Citations (Sep 2023) >228,000, H-Index 156



Professor Dr. Vasso Apostolopoulos

Distinguished Professor, AM, COP; BScHons, PhD, ACPX | Professor of Immunology
Director Healthy Living and Chronic Diseases Program
School of Health and Biomedical Sciences, RMIT University, Australia

Distinguished Professor Vasso Apostolopoulos is Head of the Healthy Lifespan and Chronic Diseases Program at RMIT University. Her expertise spans immunology, x-ray crystallography, medicinal chemistry, cellular biology, biomarker discovery, and translational research. She focuses on improving health and longevity through vaccine and drug development, discovery of bioactive compounds for chronic diseases, and AI-driven healthcare solutions. Her work addresses cancer, autoimmunity, infectious diseases, pandemic preparedness, metabolic disorders, and drug addiction, while promoting lifestyle interventions. With over 520 publications, 20 patents, and supervision of 70+ students, Vasso ranks among the top 0.13% of researchers globally and is a sought-after speaker.



Dr. Charalampos Kriatseli

Head of Electrophysiology, Vivantes Klinikum Neukölln, Berlin, Germany and Areteion Hospital, Nicosia, Cyprus.

Dr. Charalampos Kriatselis studied medicine at the Aristotle University of Thessaloniki, Greece. He graduated in 1992 and completed his specialization in cardiology at the General Hospital of Nuremberg (an academic teaching hospital of the Friedrich-Alexander University Erlangen-Nuremberg) between 1995 and 2004. During his cardiology training, he specialized in interventional electrophysiology and cardiac device therapy. From 2004 to 2006, he served as a consultant for electrophysiology at the General Hospital of Bayreuth. He then joined the German Heart Center Berlin, serving as a consultant for electrophysiology from 2006 to 2016. Alongside his clinical duties, he conducted research on atrial fibrillation—focusing on imaging modalities to improve ablative treatment outcomes—and completed his PhD in 2012. Since 2016, he has been the Director of the Arrhythmia Department at Klinikum Neukölln, an academic teaching hospital of the Charité – Universitätsmedizin Berlin. Additionally, he has been an affiliated consultant at the Aretaeio Hospital in Nicosia, Cyprus, since 2005. Dr. Kriatselis performed the first-ever catheter ablation in Cyprus in March 2005, followed by the country's first ablation for atrial fibrillation in December 2010.

Speaker's CV



Professor Dr. Argyris Tzouvelekis

Professor of Internal and Respiratory Medicine and Head of the Department of Respiratory Medicine at the University Hospital of Patras, Greece and Adjunct Associate Professor of Pulmonary Critical Care and Sleep Medicine Department, Yale School of Medicine, USA

Argyris Tzouvelekis graduated from the School of Medicine, University of Crete, Greece in 2003. From 2004-2008, he successfully completed his PhD studies in Medical School, Democritus University of Thrace. In 2004, he was granted with the European Respiratory Society Long Term Research Fellowship at Imperial College, Royal Brompton and Harefield Hospital, London. From 2007 to 2012, Dr. Tzouvelekis successfully completed his fellowship in Respiratory Medicine at the Department of Respiratory Medicine, Democritus University of Thrace, Greece. In October of 2013 he was awarded a fully-funded post-doctoral position at the Department of Pulmonary and Critical Care and Sleep Medicine, at Yale University. From 2016-2020 Dr. Tzouvelekis was Consultant Respiratory Physician at the Department of Respiratory Medicine in SOTIRIA General Hospital and a Marie Curie Respiratory Fellow. From May 2020 until now he is an Associate Professor of Internal and Respiratory Medicine at the University of Patras, Greece and Head of the Department of Respiratory Medicine at the University Hospital of Patras, Greece as well as an Adjunct Associate Professor of Pulmonary Critical Care and Sleep Medicine Department, Yale School of Medicine, USA. Dr. Tzouvelekis is an Executive Officer-Internal Auditor of European Respiratory Society, member of the European Respiratory Society (ERS) College of Experts, official reviewer of ERS fellowships and Awards, mentor of ERS young scientists (ERS mentoring scheme), Associate Editor of Respiratory Research and Frontiers in Medicine.

He is currently enumerate 189 Publications in peer-reviewed scientific journals in Pubmed, (with more than 4500 citations and a total H-index=37-Scopus, and H-Index: 38, i-index: 61-Google Scholar), more than 100 presentations and lectures in national and international conferences and 30 grants and honors, including a) the European Respiratory Society Long Term Research Fellowship and b) the European Respiratory Society-Young Scientist Sponsorship, c) the American Lung Association Senior Research Training Fellowship, and d) a European Respiratory Society/Marie Skłodowska-Curie Postdoctoral Research Fellowship.



Professor Dr. Miltiadis (Miltos) Matsagkas

Department of Vascular Surgery, Faculty of Medicine, University of Thessaly, Larissa University Hospital
President, European Society for CardioVascular and Endovascular Surgery (ESCVS)
President, Institute for the Study and Education on Thrombosis and Antithrombotic Therapy (IMETHA)

Miltiadis (Miltos) Matsagkas was born in Ioannina, Greece in 1963. He is currently a Professor of Vascular Surgery in the Faculty of Medicine at the University of Thessaly, working as a Vascular Surgeon at the Vascular Surgery Department of the University Hospital of Larissa based in Larissa, Greece. He is currently the President of the European Society for Cardio Vascular and Endovascular Surgery (ESCVS), (May 2023-2025). He is a founding member and currently the President of the Institute for the Study and Education on Thrombosis and Antithrombotic Therapy, Greece (IMETHA), (October 2022-2024) and the Director of the M.Sc. Course "Thrombosis and Antithrombotic Treatment" of the Faculty of Medicine of the University of Thessaly, (October 2018-present). Furthermore, he is the founder and has been the Editor in Chief of the Hellenic Journal of Vascular and Endovascular Surgery (HJVES), (April 2018-December 2021), as well as a founding member and the Vice President of the Institute of Vascular Diseases (IVD), (2010-present). He received his M.D. in 1987 and his Ph.D. with distinction in 1998 by the Medical School of Athens University, Greece. He was qualified as a Vascular Surgeon in 1998 after the end of the clinical training in surgery (3 years) and vascular surgery (4 years). Additionally, named member of the European Union of Medical Specialists (UEMS) Division and European Board of Vascular Surgery, in September 2002, and became Fellow of the European Board of Vascular Surgery (FEBVS).

Speaker's CV



Professor Dr. Konstantinos Toutouzas

National and Kapodistrian University of Athens ,
Head of the Department of Structural Cardiopathies and Cardio-oncology, First University Cardiology Clinic, Hippocrates Hospital

Dr Konstantinos Toutouzas completed his medical studies at University of Athens Medical School, his residency at the First Department of Cardiology of the University of Athens in Hippokration Hospital and an interventional cardiology fellowship in Centro Cuore Columbus, Milan, Italy. At present he is a Professor of Cardiology, Director Cardio-oncology outpatient clinic, Director of the Valvular heart disease outpatient clinic at the First Department of Cardiology, Athens Medical School, Hippokration Hospital, Board Member of Aglaia Kyriakou Hospital, and a Board member of the Athens Medical School Faculty. He is also the Chairman of Postgraduate Program 'Interventional Cardiology' of Athens Medical School.

He is a Chariamn Eelct of the Council for Cardiology Practice of the European Society of Cardiology and Chairman Elect for the Hellenic Socitey of Cardiology. He is a member of several Greek and international scientific societies, the European Association of Percutaneous Cardiovascular Intervention (EAPCI) and the Society for Cardiac Angiography and Interventions (SCAI). He has also served as Chairman of the Greek Working Group of Interventional Cardiology.

His main clinical interest focuses on the area of Interventional Cardiology. He performs the full range of interventions in coronary circulation including coronary angiography, percutaneous angioplasty and intracoronary imaging techniques (intravascular ultrasound and optical coherence tomography). He also successfully deals with the interventional treatment of structural heart diseases.

He has rich scientific work with more than 300 publications in peer-reviewed journals and more than 1000 citations.



Professor Dr. Nikolaos Fragakis

Professor of Cardiology in Aristotle University of Thessaloniki Medical School
Director of 2nd Department of Cardiology Hippokrateion General Hospital, Thessaloniki

Dr Fragakis obtained his medical degree from Aristotle University of Thessaloniki Medical School and completed his Cardiology training at the Onassis Cardiac Surgery Centre in Athens. During his time as a Research Registrar at St Thomas' Hospital, London, he gained extensive training in diagnostic and interventional electrophysiology, cardiac catheterisation, and pacing. In 2002 he was appointed at the General Hospital G. PAPANIKOLAOU in Thessaloniki as Consultant Cardiologist. In 2009 he was elected as Lecturer of Cardiology at the Aristotle University of Thessaloniki Medical School, and he moved to the Hippokrateion General Hospital of Thessaloniki. He progressed through all levels of academic development and in 2022 he was elected as full professor while at the same time he was appointed as Director of 2nd Department of Cardiology in Hippokrateion GH Thessaloniki Aristotle University Medical School.

He has a particular interest in cardiac rhythm disorders, clinical cardiac electrophysiology, catheter ablation techniques and implantable devices for rhythm control. In recent years he developed a special interest in Cardiometabolic Medicine, and he has organized specific out-patient clinics and contributed in several relevant publications in peer-reviewed journals.

Professor Fragakis has published more than 150 papers in English peer reviewed journals, and his work has been cited by other scientists more than 2000 times. He was also involved as National reviewer in the last European Guidelines in Cardiac Pacing. He has authored numerous chapters in official books of Internal Medicine and Cardiology. He has been involved as Principal Investigator in several National and International multicentre research trials. He is a member of several Scientific Societies and past president of the Hellenic Society of Cardiology working group in Pacing and Electrophysiology.

Speaker's CV



Dr. Pantelis Kourtellaris

Consultant Cardiologist-Electrophysiologist
American Medical Center- American Heart Institute Nicosia, Cyprus

Dr. Pantelis Kourtellaris graduated from the National and Kapodistrian University of Athens in 2001. After his research at Hippokration Hospital in Athens and internal medicine training, he continued his training in cardiology in the United Kingdom. He received the cardiologist specialty title in 2010 and he then specialized in Pacing and Electrophysiology at the University Hospital of Birmingham 'The Queen Elizabeth'. He moved to Cyprus in 2012 where he joined the Cardiology Department at the American Medical Centre. He founded the Electrophysiology department at the AMC where he treats all aspects of cardiac arrhythmias since then. He is specializing in the treatment of Ventricular arrhythmias, atrial fibrillation and supraventricular tachycardia along with pacing implantation and pacemaker system extraction.



Dr. Triantafyllos Giannakopoulos

Vascular Surgeon, Co-Director of the Vascular Surgery Department,
Mediterranean Hospital, Cyprus

Dr. Triantafyllos G. Giannakopoulos, MD, MSc, PhD, FEBVS, CCVUS, FACS graduated from the Medical School of Aristotle University of Thessaloniki and the Medical Department of the Hellenic Military Corps Officer School. He completed his vascular surgery training at Attikon University Hospital, Athens Medical School, receiving the Specialty title in 2013. He then served as Consultant Vascular Surgeon at the Athens Naval & Veterans Hospital (2013–2018, 2020–2021) and as Head of the Medical Department of the Hellenic Naval Academy (2018–2020). In 2014 he obtained the Fellow of the European Board of Vascular Surgery (FEBVS) Diploma and completed a Clinical Fellowship at Klinikum Nürnberg Süd, Germany (2014–2015), focusing on fenestrated and branched aortic endografting for the treatment of aneurysmal disease and dissections. He obtained his first PhD in Carotid Artery Stenting and is currently in the process of completing a second PhD in 3D Carotid Ultrasound, further expanding his expertise in advanced vascular imaging. Since 2019 he has also been a Fellow of the American College of Surgeons (FACS) as well as certified in Vascular Ultrasound (CCVUS) by the European Society for Vascular Surgery & the Hellenic Ministry of Public Health. Dr. Giannakopoulos has broad expertise across the vascular spectrum. His main fields of interest include complex aortic aneurysm repair (EVAR/EVAS, FEVAR, ChEVAR), carotid artery disease, vascular access for chronic renal failure, and peripheral arterial disease. He is also highly active in chronic wound healing (diabetic, venous, PAD ulcers) and performs the full range of minimally invasive endovenous ablation techniques (laser, RF, steam, MOCA, foam sclerotherapy), both for symptomatic disease and aesthetic vascular procedures. Beyond his clinical work, Dr. Giannakopoulos is an active researcher, peer-reviewer for journals such as the European Journal of Vascular and Endovascular Surgery (EJVES), and presenter at major international congresses. His publications span endovascular aneurysm repair, carotid interventions, venous stenting, and ultrasound imaging. Since 2022, he also leads the Medical 3D Printing Laboratory at Mediterranean Hospital of Cyprus, pioneering patient-specific endovascular solutions for anatomically challenging cases.



Professor Dr. Dimitrios Grassos

Consultant Pulmonologist- Tuberculosis Specialist General pan-Arkadian hospital of Tripoli
Vice President of Panhellenic Association of Pulmonologist

Dr. Grassos Dimitrios graduated from the School of Medicine of the University of Athens. He got the MSc in Interventional cardiology from the same University and MSc in primary health care from the University of Thessalias Medical School. Dr. Grassos served as Consultant in Respiratory Medicine in I.C.U, General Hospital of Corinthos, Greece and as National Delegate of Pulmonology in European Union of Medical Specialists (UEMS) Boards. Currently he is a Professor of Medical Physiology and Pathology in National Institute of Education, Panarcadian General Hospital of Tripoli, Greece and Consultant in Respiratory Medicine, in the Pulmonary Department of the same hospital. Prof. Grassos served as elected Vice President of Hellenic Union of Pulmonologists and an Elected Member of Medical Association of Arcadia, Greece. He is a Member of European Respiratory Society.



Dr. Stamatoula Tsikrika

Chest Physician at SOTIRIA Hospital, President of the Union of Pulmonologists of Greece, Scientific Associate of EODY, Board Member of the Mediterranean Institute for Study & Education in the Prevention & Treatment of Infections and Board Member of Hellenic Society of Emergency Medicine

Dr Tsikrika is a respiratory consultant at SOTIRIA Hospital in Athens, Greece. She has two postgraduate degrees in Public Health and Health Crisis Management and a PhD in chronic respiratory obstructive diseases. From 2020-today, she has been working as secretary and chair of ERS 6.03 group for Tobacco, smoking control, and health education. She is Board member of many scientific societies and shows scientific interest in climate change, public health, health promotion and prevention and respiratory infections. Also, she participates in volunteer work programs and prefers to write articles for medical journalism.

Speaker's CV



Dr. Dimitri Richter

Head of Cardiac Department, Euroclinic Hospital, Athens, Greece

Dimitris Richter MD, FESC, FAHA is the Head of Cardiac Dept, Euroclinic Hospital, Athens, Greece since 2002. He has a Special interest in Lipids treatment, Coronary Artery Disease Prevention and Treatment and thrombosis management.

He was elected as President of Hellenic Lipidology Society 2013-2017, President of Institute of thrombosis research 2018-20, member of the board of Hellenic Heart Foundation since 2009, President WG epidemiology and Prevention - Hellenic Heart Society 2008-9, President of the Council of Clinical Practice of ESC 2018-20, and Member of Committee of Practice Guidelines of the ESC 2016-2020.

He is Editor in chief of "Heart and Vessels", the official publication of the Hellenic Heart Foundation since 2010, an ESC Fellow since 2005, AHA Fellow since 2006. He is author of various papers in international peer-reviewed journals with an IF of > 400 and Co-author of various ESC guidelines on: CVD prevention in clinical practice (2016) and revascularization (2014 and 2018), Dyslipidemia (2019).



Professor Dr. Loizos G. Loizou

Clinical Professor of Pediatrics, Pediatric Oncology – Hematology, Medical School, University of Nicosia Fmr. Director of the Pediatric Oncology - Hematology Clinic, Archbishop Makarios III Hospital, Nicosia President of the ELPIDA Foundation for children and adolescents affected by cancer or leukemia.

Loizos G. Loizou, after his studies in Medicine in Brussels, Belgium and his specialization in Pediatrics, and Pediatric Oncology - Hematology in Strasburg and Nancy in France, was invited by the Minister of Health of Cyprus in 1989 to return to Cyprus and undertake the establishment and operation of the Pediatric Oncology - Hematology Department at the Archbishop Makarios III Hospital, which he runs till today.

He is the founder of Pediatric Oncology-Hematology in Cyprus. He undertook the training of the medical nursing, in order to create the entire necessary infrastructure to provide the best possible care for the cancerous and leukemic children. In November 1996 he was in charge of the team of doctors who carried out the first bone marrow transplantation in Cyprus, writing a new chapter of historical importance for medicine in Cyprus. Additionally, this team created the first modern leukemia diagnostics laboratory and the first cryopreservation facility in the country for storing pluripotent umbilical cord and bone marrow stem cells at the Archbishop Makarios III Hospital in Nicosia. Since 1990 he established the first ever cancer registry in Cyprus, the Pediatric Oncology Registry of Cyprus (PORCY), which was initially and till 1998 a hospital-based registry. After the creation of the Cyprus National Cancer Registry in 1998, the PORCY was further developed and became a population-based childhood and adolescent cancer registry.

In 1990 he created and is the President of the ELPIDA Foundation for Children with Cancer and Leukemia (a nongovernmental charity organization) to strengthen and support the medical and social efforts to create the modern infrastructure for the care of children, adolescents and young adults affected by cancer and offer them the best possible therapies and overall management.

Prof. Loizou, with his unique experience of 37 years of exclusive clinical occupation with childhood cancer and leukemia, continues his clinical and research work in descriptive epidemiology, survivorship issues, cancer predisposition syndromes and trials including new anticancer agents, with innovative and pioneering actions for improving the survival rates and quality of life of children and adolescents with cancer or leukemia, as well as in general, to fight the scourge of cancer.

Speaker's CV



Assoc. Professor Dr. Elias Tsougkos

Assoc. Professor of Cardiology; European University Cyprus
Director, 6th Cardiology Department, Hygeia Hospital, Athens, Greece
Head Cardiologist, Hellenic Olympic Committee

Elias Tsougos, MD, PhD is a Cardiologist and Director of the 6th Cardiology Clinic at HYGEIA Hospital, Athens, Greece, with extensive clinical and academic experience in cardiovascular medicine, heart failure and clinical research. He is also Assistant Professor of Cardiology at the European University Cyprus and serves as a head cardiologist for the Hellenic Olympic Committee.

Dr. Tsougos has a strong interest in the contemporary management of heart failure, with particular emphasis on heart failure with preserved and reduced ejection fraction, cardiometabolic disease, obesity, prevention and emerging therapeutic strategies. His scientific interests include the intersection between metabolic dysfunction, inflammation and cardiovascular disease, as well as the integration of novel pharmacological approaches into modern heart failure care.

He is actively involved in international multicentre clinical trials, including studies evaluating novel therapies in heart failure and cardiovascular disease, and has extensive experience in clinical research, patient recruitment, investigator responsibilities and the implementation of evidence-based therapies in clinical practice.

Dr. Tsougos is also actively involved in cardiovascular education and scientific communication, regularly participating as a speaker and faculty member in national and international scientific meetings. His academic work focuses on translating emerging clinical evidence into practical strategies for cardiovascular care.

He is a member of the European Society of Cardiology (ESC) and has recently been elected to the ESC Nominating Committee representing Associations, Working Groups and Councils, reflecting his active engagement in the European cardiovascular community.

Through his clinical, academic and research activities, Dr. Tsougos is particularly interested in the evolving concept of cardiometabolic heart failure, where obesity, diabetes, inflammation and cardiovascular dysfunction are increasingly recognized as interconnected therapeutic targets.



Professor Dr. Marios Pantzaris

Senior Consultant Neurologist, Head of Neuroimmunology Department Cyprus Institute of Neurology and Genetic

Dr Marios Pantzaris has been trained in Neurology in 1995 inThessaloniki, Greece. He has also been trained in Carotid Duplex – Doppler ultrasonography in London, St Mary's Hospital, University College London in 1995 and in 1999 he was a visiting doctor in an acute stroke unit in Massachusetts General Hospital, Harvard University Boston, USA. Since 1995 he is working at the Cyprus Institute of Neurology and Genetics (CING) as a Senior Neurologist in the Neurological Section. He is the Head of the Neuroimmunology Department (Multiple Sclerosis and Demyelinating Disorders Center) and the Neurovascular Laboratory. He is a full acting Professor at the CING Postgraduate School.

He has a huge experience in carotids – transcranial ultrasound and he has participated in many research projects and publications in this area. He is also head of the Multiple Sclerosis (MS) clinic (Under Neuroimmunology Department) with more than 1500 patients where he is running research projects towards the aetiology and therapy of MS.

Through the Cyprus Molecular Medicine School, he is the Mentor and trainee of PhD and Master Degree students. He is also interested in movement disorders and pain. With the collaboration of the Cyprus Functional Neurosurgery team they have started (since 2012) operating patients with Parkinson disease, Dystonia and Tremor (Deep Brain Stimulation) as well as neuropathic pain (Spinal Cord Stimulation) and Intractable Urinary incontinence (Interstim). His department hosts medical students from the University of Cyprus, the European University and St George's University. He is participating in the training of Neurology

Residence (in collaboration with the University of Cyprus). He has given many lectures in the field of MS, Carotid Ultrasound, Stroke and Parkinson's disease in Cyprus and abroad.

Prof. Marios Pantzaris is one of the three scientists that founded and developed the food supplement "Neurosis plp10" for Multiple Sclerosis patients and he is currently one of the directors of PALUPA Medical Ltd, a Research ND DEVELOPMENT company. He has more than 230 published papers in a high impact peer reviewed journals and currently is involved in many research and clinical trials.

Speaker's CV



Clin. Professor Dr. Constantinos Papadopoulos

Director of the 2nd Cardiology Clinic, Korgialenio-Benakio Hospital, Head of the Echocardiography Laboratory and the Heart Failure Clinic, Co-Chair of the European Committee for Transesophageal Echocardiography Examinations; "Korgialenio-Benakio, Hellenic Red Cross" General Hospital of Athens, Athens, Greece.

Constantinos Papadopoulos is a specialist cardiologist who graduated from the Medical School of the National and Kapodistrian University of Athens. He holds a PhD in cardiac resynchronization therapy imaging, as well as two Master of Science degrees—one in Healthcare Management and another in Clinical and Laboratory Medicine—all awarded with the highest honors. Professionally, he specializes in advanced cardiovascular imaging and heart failure management and currently holds the position of Cardiology Director at the Hellenic Red Cross Hospital in Athens, where he oversees the Echocardiographic Laboratory and the Heart Failure Clinic, managing complex clinical protocols and training medical staff. Prior to his current directorship, he served as a Cardiology Consultant at the same institution for over a decade, personally performing more than ten thousand echocardiographic studies annually. His extensive background also includes roles as a Consultant and Clinical Research Fellow at Attikon University Hospital and the Onassis Cardiothoracic Center, enriched by specialized postgraduate training in Cardiac Magnetic Resonance at the University Hospitals of Leuven in Belgium. Parallel to his clinical responsibilities, Dr Papadopoulos actively contributes to medical education as a Visiting Assistant Professor of Cardiology at the European University of Cyprus, where he teaches and mentors medical students and registrars and serves as the Co-Chair of the Transoesophageal Echocardiography Certification Committee for the European Association of Cardiovascular Imaging (EACVI). Furthermore, he has driven clinical research as a Principal and Sub-Investigator in more than fifteen international multicenter clinical trials, has published sixty papers in peer-reviewed journals, and has authored multiple foundational cardiology textbooks, the latest of which focuses on cardiovascular imaging in clinical practice. Finally, he has served as an elected board member of the Hellenic Cardiology Society and as President of the Hellenic Working Group of Echocardiography.



Professor Dr. Giorgos Spyrou

Bioinformatics Department, The Cyprus Institute of Neurology & Genetics

Dr. Aikaterini Christidi obtained her medical degree from the Medical School of the University of Thessaly, Larissa, Greece, in 2011, graduating with distinction. She completed her Cardiology Residency at the University Clinic of the Heart Center Dresden, Germany (2013 2015), and at the Clinic for Cardiology, Pneumology and Angiology, University Hospital Düsseldorf, Germany (2015–2020). During her training, she gained extensive experience in clinical cardiology, emergency medicine, intensive care, echocardiography and advanced cardiac imaging. She received her PhD from the Medical School of the University of Thessaly in 2018. Her doctoral thesis, entitled "The impact of β-thalassemia trait on arterial function", was awarded an excellent grade. In 2020, she obtained her Specialist Title in Cardiology in Düsseldorf, Germany, and completed a fellowship in Cardiac Magnetic Resonance at the University Hospital Düsseldorf. She also worked in the Ambulatory Cardio-Oncology Clinic of the same institution. Dr. Christidi obtained ESC-EACVI Cardiovascular Magnetic Resonance Level III Certification in 2022 and became a Fellow of the European Association of Cardiovascular Imaging (EACVI) in November 2025. Since March 2022, she has been Head of the Cardiovascular Magnetic Resonance Department at the General Clinic of Thessaloniki, where she is responsible for the clinical implementation and development of advanced CMR services. Her clinical and scientific work focuses on advanced cardiovascular magnetic resonance (CMR) techniques, myocardial tissue characterization, genetic cardiomyopathies, quantitative mapping techniques, and multimodality cardiovascular imaging. Her current research interests include quantitative CMR and the integration of artificial intelligence into myocardial phenotyping and precision cardiovascular imaging.

Speaker's CV



Professor Dr. Philippos Triposkiadis

Professor Emeritus of Cardiology, University of Thessaly, Greece
Adjunct Professor of Cardiology, European University Cyprus

Dr. Triposkiadis graduated from the Medical School of the University of Athens in July 1979 and from October 1979 to December 1981 he did his military service in the Hellenic Navy. From March 1990 to October 1999, he served as an attending cardiologist in the Department of Cardiovascular Surgery, Hippokration General Hospital, Athens, Greece. Dr Triposkiadis became Assistant Professor of Cardiology at the Faculty of Health Sciences of the University of Thessaly in September 1997, Associate Professor of Cardiology in May 2003, and Professor of Cardiology in October 2007. Dr Triposkiadis served as the Director of the Department of Cardiology of the Larissa University Hospital for more than 20 years (2000 to September 2021). He also served as Director of the Internal Medicine Sector of the Faculty of Health Sciences of the University of Thessaly for three mandates (2006-2007, 2008-2009 and 2009-2010) and as Chief Medical Officer of the Larissa University Hospital for one mandate (2011-2015). Dr Triposkiadis became Professor Emeritus of Cardiology of the University of Thessaly at the end of 2022. Dr Triposkiadis was appointed adjunct Professor of Cardiology of the European University of Cyprus in June 2019 Dr. Triposkiadis is currently a member of several international scientific societies. Dr Triposkiadis has been a member of the Steering Committee/National Coordinator and/or Principal Investigator in approximately 70 founded research programs. In a recent (11.9.23) search in Scopus Dr. Triposkiadis appeared in 258 publications with 8304 citations and an h-index of 41. If the publications in Hellenic medical journals are added, Dr Triposkiadis has contributed to more than 300 publications in extenso. Additionally, he is the editor of one Textbook of Cardiology (approximately 1 000 pages, two editions, Athens 2003, and Athens 2016) which has been adopted by several Hellenic Medical Schools and coeditor of one Textbook on Diabetes-Heart-Vessels (Athens 2010). Finally, Dr Triposkiadis was the founder of the MSc program entitled "Heart Failure-Cardio-oncology-Cardiac Rehabilitation" in 2021, organized by the Department of Cardiology of the Larissa University Hospital under the auspices of the University of University of Thessaly and endorsed by the Hellenic Cardiological Society.



Dr. Marios Ioannides

Consultant Cardiologist and Assistant Director of the Cardiology Department, Nicosia General Hospital, Cyprus

Dr. Marios Ioannides is a Consultant Cardiologist and Assistant Director of the Cardiology Department at Nicosia General Hospital, Cyprus, where he serves as Head of the Non-Invasive Cardiology and Echocardiography Laboratory. He is also the coordinator of the hospital's specialised Cardiomyopathy Clinic, which serves as a national referral centre for the evaluation, diagnosis, and genetic assessment of inherited cardiomyopathies. Dr. Ioannides graduated from the Medical School of Aristotle University of Thessaloniki, Greece, and completed his specialist training in cardiology at Giannitsa General Hospital in Greece and at Nicosia General Hospital. He further pursued advanced training in echocardiography at King's College Hospital, London, with a focus on stress echocardiography, transoesophageal echocardiography, and contrast echocardiography. Throughout his career, he has continued to expand his expertise through dedicated training in advanced echocardiographic imaging, including three-dimensional echocardiography and cardiomyopathy-focused imaging programmes in leading European centres. He holds a Master's Degree in Hospital Management from the Open University of Cyprus and is accredited by the European Association of Cardiovascular Imaging in Transthoracic Echocardiography and Stress Echocardiography. He is a Fellow of the European Resuscitation Council. His clinical and research interests focus on echocardiography, inherited cardiomyopathies, sudden cardiac death, and resuscitation medicine. He has served as National Coordinator for several major European registries and multicentre studies, including the European Registry of Cardiac Arrest (EuReCa) and projects conducted under the auspices of the European Society of Cardiology.



Professor Dr. Ioannis Pnevmatikos

rofessor Ioannis Pnevmatikos served as Professor of Intensive Care Medicine at the University of Cyprus Medical School (2020-2025). He received his MD from the Aristotle University of Thessaloniki, Greece (1983) and PhD degree from the University of Ioannina, Greece (1996). His previous academic positions include Associate Professor of Intensive Care Medicine at the Democritus University of Thrace, DUTH, (2003-2009) and Professor at DUTH (2009-2022). His research interest is focused on the field of Intensive Care Medicine and includes areas such as mechanical ventilation, infections, sepsis, and clinical bioethics. He has published more than 130 scientific papers in international peer-reviewed journals and has delivered more than 300 lectures in Greece and internationally on topics related to Critical Care Medicine and Pulmonology. He is a member of several leading international scientific societies, including ESICM, ERS, and ACCP.

In 2023, he was honored in Cyprus with a special award jointly presented by the Cyprus Respiratory Society and the Hellenic Thoracic Society, in recognition of his valuable contribution to the field of Pulmonology and Critical Care Medicine in Cyprus and Greece.

Speaker's CV



Professor Dr. Kyriakos Kypreos

Chairman of the Pharmacology laboratory of the Department of Medicine at the University of Patras School of Health Sciences, Patra, Greece

Professor Kyriakos E. Kypreos received his Ph.D. in Biochemistry in 1998 from Boston University Medical School Division of Graduate Medical Sciences (Boston, MA. U.S.A). Following his graduation, Prof. Kypreos did his post-doctoral training at the Whitaker Cardiovascular Institute at Boston University Medical Center in the U.S.A (1998-2002) and at Leiden University Medical Center, Department of Human Genetics (2002-2004) in the Netherlands. In 2004 he returned to the USA where he became Instructor and in 2006 Research Assistant Professor in Medicine at Boston University School of Medicine. From 2001 to 2007 Prof. Kypreos served on the scientific advisory board of KOS Pharmaceuticals during which time he was introduced to the world of Pharmacology. In 2008, he was appointed as Associate Professor of Pharmacology at The University of Patras School of Health Sciences, Department of Medicine, in Greece, where in December 2013, he was promoted to the rank of full Professor of Pharmacology. Since September 2014, he is the Chairman of the Pharmacology laboratory of the Department of Medicine at the University of Patras School of Health Sciences. At this capacity, he established the service unit "Center for Clinical Pharmacology and Toxicology" of the laboratory aiming at facilitating precision medicine decisions. In addition to his main appointment, since September 2019 he also holds a secondary academic appointment as Adjunct Professor of Pharmacology and Metabolic Disorders at the European University Cyprus, School of Sciences, Department of Life Sciences.

Prof. Kypreos' research interests focus on the pharmacology of metabolic syndrome. In particular his team research the mechanisms underlying the development of the pathological conditions associated with metabolic syndrome with emphasis placed on the lipoprotein transport system. Ultimate goal of their studies is the identification of novel pharmacological targets and the development of lead compounds for the treatment of these conditions.Prof. Kypreos' previous research works have been featured in high profile international media including ASBMBToday.

Prof. Kypreos has been an EMBO Fellow, a Marie-Curie Fellow , and the winner of "Irvine H. Page" Atherosclerosis Research Award, offered by the ATVB council of the American Heart Association. His research activities have been funded by competitive research grants from the General Secretariat for Research and Technology, the Hellenic Foundation for Research and Innovation, the Hellenic State Scholarship Foundation, the European Community and the industry.

Prof. Kypreos is member of the editorial board of the American Journal of Physiology-Endocrinology and Metabolism, the Journal of Biomedical Research and the journal Androgens. As of Dec 1 2018, Prof. Kypreos is an elected member of the Executive Committee of the Hellenic Atherosclerosis Society (HAS), an affiliate of the European Atherosclerosis Society (EAS).

Since 2016, Prof. Kypreos is the vice chairman of the National Pharmacovigilance Committee (EFAR), the commitee responsible for the safety of medicines and vaccines for human use. Prof. Kypreos also served in the past as member of the Health Technology Assessment (HTA) committe (ΕΑΑΦΑΧ) of the Hellenic Ministry of Health, the committee responsible for evaluating all new drug applications for being reimbursed by the public health system. At present he is aso a vice editor of the high impart peer revewed journal "pharmacology".

In addition, Prof. Kypreos has extensive teaching duties. Currently, he co-coordinates and teaches various Pharmacology courses for medical and graduate students at the University of Patras Medical School and other Institutions in Greece and abroad.



Professor Dr. Eleni Arnaoutoglou

Director of the Department of Anesthesiology, General University Hospital of Larissa
Professor of Anesthesiology, Department of Surgery, Anesthesiology Clinic, Faculty of Medicine, University of Thessaly, Greece

She received her Doctor of Medicine degree at the University of Patras and completed her residency in Anesthesiology at the University of Ioannina.

Professor Arnaoutoglou's research interests include perioperative antithrombotic management, postoperative cognitive dysfunction, perioperative inflammatory response cardiovascular anaesthesia, algology and palliative care.

She has 143 Publications (Pubmed), 3.642 citations with an h-index of 24, 97 presentations in International Congresses, 108 abstracts in International Journals and 5 Chapters in International Scientific Books. She also has been an Invited Speaker in 189 Greek Congresses and in 97 International ones, and as a Chair in 102 Scientific Sessions.

She is a Member of the European Scientific Association of the European Society of Anaesthesiology and Intensive Care, Ex-Consultant of Anesthesiology for the WHO, President of Northern Greece for the National Examinations for the Specialty of Anaesthesiology, Secretary for the ISETAT (Institute for the Study and Education on Thrombosis and Antithrombotic Therapy), Member of the Working Group of the Hellenic Society of Algology and Member of the working group of the IVD (Institute of Vascular Diseases), Director of M.Sc Course "Algology and Palliative Care" and Co-Director of M.Sc. Course "Thrombosis and Antithrombotic Treatment".

Speaker's CV



Assoc. Prof. Dr. Stavroula A. Paschou

Assoc. Professor of Endocrinology, Head of Endocrine Unit and Diabetes Center, Department of Clinical Therapeutics, Alexandra Hospital, School of Medicine, National and Kapodistrian University of Athens, Athens, Greece

Stavroula (Lina) Paschou, MD, PhD is Assoc. Prof. of Endocrinology at School of Medicine, National and Kapodistrian University of Athens, Greece. She is Head of the Endocrine Unit of Department of Clinical Therapeutics and Director of Diabetes Center at University Hospital Alexandra in Athens, Greece. Assist. Prof. Paschou graduated with Honors (8.88/10) from School of Medicine, University of Ioannina, Greece in 2005. She obtained her PhD in Endocrinology with Honors from the same University in 2010. Then, she worked at St Bartholomew's Hospital, University of London, UK, funded by grants from the European Association for the Study of Diabetes (EASD). She continued with clinical training in Endocrinology at the Hellenic Red Cross Hospital in Athens, Greece. In 2015, she was awarded the International Endocrine Scholarship by the European Society of Endocrinology (ESE) and moved to Boston, MA, USA. She completed her training in Endocrinology at Beth Israel Deaconess Medical Center (BIDMC), Harvard Medical School, Boston, MA, USA. Assist. Prof. Paschou has published a large number of chapters in prestigious scientific books, such as Oxford Textbook of Endocrinology and Diabetes, and papers in prestigious scientific journals, such as New England Journal of Medicine. Her main areas of interest are Diabetes/Obesity/Metabolism, Reproductive Endocrinology and Thyroid. Her author metrics can be summarized as following: publications in PubMed 248, citations 12.100, h-index 53, i10-index 169. Assist. Prof. Paschou is among the top 2% of scientists worldwide based on the ranking of Stanford University, Main Field: Clinical Medicine, Sub Field: Endocrinology & Metabolism. Assist. Prof. Paschou has given invited lectures or has chaired in many national and international congresses or webinars (more than 250 in total). She regularly serves as Faculty at the Postgraduate Education Courses of EASD and ESE. She acts as Guest Editor, Associate Editor, member of the editorial board or reviewer in high impact scientific journals. She has received prestigious awards and scholarships. Assist. Prof. Paschou is member of the expert panel in medical devices of the European Commission - Directorate General for Health and Food Safety, member of the ESE Science Committee and co-Chair of the ESE Growth & Genetic Obesity COVID-19 Subgroup of the ESE COVID-19 Committee. She is co-Chair and responsible for the organization of the successful Webinar series ESE Spotlight on Science since January 2022. She served as member of the Board of Trustees of the Bioscientifica Trust. Assist. Prof. Paschou was member and co-Chair of the ESE Young Endocrinologists and Scientists (EYES) Committee and member of the ESE Executive Committee (EYES representative). She chaired the 7th EYES Meeting in Athens, Greece in September 2019 and she was member of the Program Organizing Committee for the European Congress of Endocrinology (ECE) 2021.



Mr Takis Kotis

Chief Executive Officer, Cambridge Medical Academy, Cambridge, UK

Mr. Takis Kotis graduated from the University of Minnesota - Twin Cities with a Bachelor's degree in Health Economics and a Master of Business Administration (M.B.A.) in Health Care Administration/Management. With over 40 years of experience in the healthcare industry, he specializes in transforming healthcare organizations through Information and Communication Technology (ICT), focusing on Strategic Management, Business Intelligence, and Healthcare KPIs.

Currently, Mr. Kotis serves as the CEO of Cambridge Medical Academy, a position he has held since January 2014. Under his leadership, the UKeMED Platform was developed. This innovative ICT platform delivers advanced healthcare on-demand services and training courses in various global markets, including China, India, Russia, and several others. Mr Kotis and his Team has completed successfully more than 15 European funded projects.

From January 2008 to November 2018, Mr. Kotis was the International Business Development Manager, Strategy and Planning department, at Cambridge University Hospitals NHS Foundation Trust. During this time, he was instrumental in initiating The Forum Project and the UKeMED educational platform, focusing on Business Intelligence tools, performance management evaluations, and hospital restructuring processes.

In addition to his current role, Mr. Kotis is the President of the Board of Directors at eBiostat Ltd. and the Institute of Medical Education and Research in Athens, Greece. Both institutions are dedicated to medical continuous professional education and clinical research, with notable projects such as the IASIS product, which serves 40 public hospitals in Greece.

His extensive career also includes senior management roles at Royal Brompton & Harefield NHS Foundation Trust, London, UK and Mayo Clinic, Rochester, Minnesota, where he focused on strategic management, quality control, finance, marketing, and international research programs. Additionally, he served as the Managing Director at FRESHCHECK INC., overseeing microbiological laboratories specializing in food contamination. In addition, served at various Board of Directors healthcare institutions in, Japan, Greece, Cyprus and China.

Speaker's CV



Mr. Lars Munter

International Director, Nordic Wellbeing Academy

He is a dedicated champion for health literacy in Europe. He holds MA in Rhetoric and Natural Science from Copenhagen University. As part of his professional work in Scandinavia and Europe, his skills of combining communication and science has led to knowledge sharing and joint platforms to promote self-care, empowerment, and citizen action - including corporate social responsibility - and has been core of daily activities across sectors and borders for 20 years in Danish, Nordic, and European initiatives and projects.

As International Director in the Nordic Wellbeing Academy, he's dedicated to practical initiatives and systems leadership to support change: this includes being Communications Lead for the Nordic Health 2030 Movement, being engaged in the European Health Futures Forum and creating path for knowledge sharing among and across stakeholders, themes, and organizations.



Professor Dr. Christos Savvopoulos

Prof. of Internal Medicine, Aristotle University of Thessaloniki,
Director of 1st Medical Propedeutic Dept of Internal Medicine & Stroke Unit, Excellence Center of Hypertension, AHEPA University Hospital

He is Professor of Internal Medicine of Aristotle University of Thessaloniki who is working in 1st Medical Propedeutic Department of Internal Medicine at AHEPA University Hospital. He has graduated Medical School of Aristotle University of Thessaloniki in 1989, has specialized in Internal Medicine receiving his specialist degree in Internal Medicine in 1997 and he continued to serve the Medical School as an Affiliated Clinical and Research Associate in the 1st Propedeutic Dept of Internal Medicine of AHEPA Hospital until his election as Clinical Lecturer in Internal Medicine in 2002. In the year 2001 he received the European Hypertension Specialist degree from European Society of Hypertension, while in 2002 he received his PhD, Medical School, Aristotle University of Thessaloniki, with distinction, after his successful research project on "Sodium-lithium countertransport activity in healthy, dyslipidemic, and hypertensive individuals". After his appointment as Clinical Lecturer in the Medical School of Aristotle University of Thessaloniki in the year 2002, he served Internal Medicine with a special emphasis in the area of the management of Hypertension and the Stroke Unit patients. His successful training has been confirmed soon after his return in the Aristotle University of Thessaloniki, where in October of the year 2011 he was one of the principal establishers of a Stroke Unit in the University Hospital of AHEPA, Thessaloniki Greece and thereafter the Head of this Stroke Unit. At present he is Director of 1st Propedeutic Medical Dept of Internal Medicine & Stroke Unit and Clinical Director in the Outpatient Clinic of Internal Medicine, Excellence Center of Hypertension, Centre of Obesity Management and Dyslipidaemia. He is a co-author for 361 full paper publications. Of these, 210 are publications in international journals covered by PubMed & Scopus. His authorship also includes the writing of 41 books or book chapters or editorial support in Greek translated chapters of foreign language publications. In addition, 216 lectures and several oral presentations or posters in Greek and international conferences reflect his research and teaching activities.



Clinical Professor Dr. Manolis Nikolousis

Consultant Hematologist and Bone Marrow Transplantation
Program Director for Acute Leukemia and stem cell transplantation at
Yas Clinic. Abu Dhabi

Dr. Emmanouil Nikolousis is a Consultant Hematologist and Bone Marrow Transplantation Specialist with over 20 years of clinical experience. He has extensive expertise in hematological malignancies, bone marrow transplantation, general hematology, blood transfusion, and clotting disorders. His background includes senior UK NHS leadership roles, academic appointments as a Clinical professor EUC Medical School, clinical research, international conference presentations, and multiple publications in hematology and transplantation.



Assoc. Professor Dr. Polys Evripidou

Consultant Diabetologist
Limassol, Cyprus

Polykarpos Evripidou graduated from the Russian State Medical University of Moscow in 2001. He specialized in Internal Medicine at the Department of Internal Medicine of Limassol General Hospital and he followed advanced training in Diabetes Mellitus, Diabetic Foot and Obesity at the Diabetes Centre of the First Propaedeutic Department of Internal Medicine of Laiko General Hospital in Athens, under Professor Nikolaos Tentolouris. He is assigned as Visiting Professor at CDA College, Department of Aesthetics and Hairdressing and since 2014 GPT appointed as a Tutor Clinical Blocks at the St George's, University of London medical programme (University of Nicosia Medical School). Dr Evripidou Appointed until today, as a member of the National Committee for Diabetes at the Ministry of Health, representing the Pancyprian Medical Association.

Speaker's CV



Assoc. Prof. Dr. Efterpi Zafeiriou

Head of Dermatology Department, University Hospital of Larissa
University of Thessaly, Greece.

Efterpi Zafeiriou is a Dermatologist–Venereologist and recently elected Professor of Dermatology at the Faculty of Medicine, University of Thessaly, Greece. She has been an academic faculty member since 2008, progressing from Lecturer to Associate Professor in 2022 and recently elected Professor. Since September 2024, she has served as Head of the Dermatology Clinic at the University Hospital of Larissa, while maintaining a private dermatology practice since 2008. She is responsible for specialized outpatient clinics in psoriasis, skin allergies, alopecia areata, and skin cancer. She has 21 years of continuous teaching experience at undergraduate and postgraduate levels, educating medical students, dermatology residents, and healthcare professionals. Her research focuses primarily on psoriasis and psoriatic disease, particularly the immunological and molecular mechanisms of inflammation and autoimmunity, with broader interests in atopic dermatitis, skin allergies, dermatologic oncology, pharmacogenetics, personalized medicine, biomarkers, genomics, microbiome, and artificial intelligence in dermatology. She has authored more than 80 full publications in international journals, in addition to a monograph, 3 books, 5 book chapters, and other scholarly contributions. She has also participated in 45 clinical studies, serving predominantly as principal investigator, demonstrating her longstanding contribution to clinical and translational dermatological research.

Speaker's CV



Clin. Assoc. Professor Dr. Marios Hadjipavlou

Consultant Urological Surgeon, El Greco Medical Centre, Nicosia, The Princess Grace Hospital, London; UNIC School of Medicine; King's College London School of Medicine.

Marios Hadjipavlou is a Consultant Urological Surgeon and Andrologist and Clinical Associate Professor of Urology. He is Director of the Urological Department at El Greco Medical Centre in Nicosia and currently serves as Secretary of the Cyprus Urological Association. He graduated from King's College London School of Medicine in 2009, where he also completed a BSc (Hons) in Physiology. He subsequently undertook surgical and specialist urological training in London and South-East England, obtaining the UK Certificate of Completion of Training in Urology. He is a Fellow of the Royal College of Surgeons of England in Urology and a Fellow of the European Board of Urology. Before returning to Cyprus, Dr Hadjipavlou worked as a Consultant Urological Surgeon at Guy's & St Thomas' NHS Foundation Trust and practised at several leading London private hospitals, including King Edward VII's Hospital in the Harley Street area, London Bridge Hospital and The London Clinic. At Guy's Hospital he developed particular expertise in Holmium Laser Enucleation of the Prostate (HoLEP) and was involved in training other surgeons in the technique. His clinical interests include minimally invasive surgery for benign prostatic enlargement, precision prostate cancer diagnostics, endourology and complex kidney stone surgery and andrology. He has performed more than 6,000 surgical procedures, including over 800 HoLEP operations. Dr Hadjipavlou has served as an expert adviser to NICE on technologies for benign prostatic enlargement. He has authored more than 30 peer-reviewed publications and six book chapters and has delivered over 70 national and international presentations, receiving multiple awards from organisations including the European Association of Urology, British Association of Urological Surgeons and Royal Society of Medicine.



Dr. Patrick Pallier

Senior Lecturer in Neuroscience, Barts and The London School of Medicine and Dentistry
Centre for Neuroscience, Surgery and Trauma, Queen Mary University of London, The Blizard Institute

Patrick Pallier is a Senior Lecturer in Neuroscience at Barts and The London School of Medicine and Dentistry, Queen Mary University of London, UK, in the Dept of Neuroscience, Surgery and Trauma. He did a PhD at INSERM in Bordeaux, France, and then worked as a post-doctoral researcher in the School of Psychology of the University of St Andrews, Scotland, and in the Dept of Pharmacology of the University of Cambridge, UK. He supervises many research projects on neuroprotection and repair after trauma (brain, spinal cord), and in ageing and neurodegenerative conditions, using both in vitro and complex in vivo models. Dr Pallier is also a Fellow of the UK Higher Education Academy. He is responsible for the Brain and Behaviour modules in phase 1 of the medical curriculum (including the Graduate Entry Programme) and teaches students from the intercalated BSc Neuroscience and BSc and MSc Neuroscience.

Speaker's CV



Professor Dr. Erifili Hatziagelaki

Professor (Em) of Internal Medicine & Metabolic Diseases
Medical School, National and Kapodistrian University of Athens, Greece

Erifili Hatziagelaki is Professor (Em) of Internal Medicine & Metabolic Diseases at Medical School of National and Kapodistrian University of Athens, Greece, Consultant Diabetologist at Onasseio Cardiac Surgery Center (OCSC), Athens, Greece and Visiting Professor at German Diabetes Center (DDZ), Heinrich Heine University, Düsseldorf, Germany. She graduated from the Cologne University Medical School, Germany (1983)

and then she completed her training in Internal Medicine and Diabetology at "Evangelismos" Hospital, Athens, Greece (1994). She holds a doctor's license in Germany and Greece. Her scientific interests comprise clinical and experimental research on the pathophysiology of diabetes mellitus (Pathogenesis, Genetic, Insulin Resistance, Immunology). During her time at the 2nd Dept. of Internal Medicine of Athens University, she focused on the clinical research field of Pharmacokinetics of human insulin as well as of oral antidiabetic drugs. Furthermore, she completed, with a scholarship by "NATO", a two-years (1995- 1997) Postdoctoral Honorary Research Fellow at the Division of Immunology of Diabetes and Islet-Transplantation in the 3rd Medical Clinic and Policlinic of Justus-Liebig University of Giessen, Germany, which was a highly regarded Medical Center as International Registry of Pancreatic Islet Transplantation. She was engaged there in clinical and basic research in the field of immunology in diabetes and pancreatic islet transplantation. In addition, she extended her scientific focus as a Visiting Professor in the IV. Medical Clinik und Policlinic, Tübingen University, Germany, (Invitation from Professor H.U.Häring which was authorized by the Athens Medical School) for 5 years (2010-2015). During her stay in that department, she has been involved not only in research protocols but also in the daily monitoring of diabetic patients in the outpatient clinic as well as in hospitalized diabetic patients. Since November 2015 she works as a visiting professor at the University of Düsseldorf, Germany, German Diabetes Center (DDZ), Leibniz Center for Diabetes Research at Heinrich Heine University Düsseldorf and she is involved in the research in the field of diabetes and fatty liver disorders. Over the years, she contributed to different fields of metabolic research, such as clinical trials on diabetes treatment, the role of islet autoantibodies for diabetes diagnosis, studies on diabetes genes and more recently fatty liver disease, an emerging field in metabolic research. Some of these activities attracted international funding by DAAD, Germany, NIDDK - the National Institutes of Health and the JDRF Juvenile Diabetes Research Foundation, USA. Her research is recognized by her serving as a reviewer in different international journals. In addition, she was the Vice President of the Central European Diabetes Association, CEDA (2018-2022)

and now member of the Board (2022 - 2026) and Member of the European Type 1 Diabetes Genetics Consortium (ET1DGC), reflecting her international recognition in the field of diabetes. Furthermore, she served as President of the Diabetes Committee of the Central Health Council of the Ministry of Health (KESY, 2021-2023), as President of the Examination Committee for the Diploma of Specialty in Diabetes in Greece, as General Secretary of the Greek Association for Diabetes, as General Secretary of the Greek Association for the Study of Risk Factors for Vascular Diseases, as Vice President of the

Greek Association "Diabetes Academy", as Head of the Division "Immunology and Diabetes" of the 2nd Dept. of Internal Medicine, Research Institute & Diabetes Center at "Attikon" University Hospital, (2019-2023) and as Head of the Diabetes Center of the 2nd Dept. of Internal Medicine, Research Institute & Diabetes Center at "Attikon" University Hospital, (2019-2023). Professor Hatziagelaki is Member of the Scientific Working Group of the Ministry of Health for the Diagnostic and Therapeutic Prescription Protocols for Diabetes and Obesity, Member of the Secondary Scientific Advisory Board of the National Organization for Medicines (EOF), Member of the Secondary Scientific Advisory Board of the Hellenic Association of Pharmaceutical Companies (SFEE).



Clin. Assoc. Prof. Dr. Dimitrios Kyparissopoulos

Professor (Em) of Internal Medicine & Metabolic Diseases
Medical School, National and Kapodistrian University of Athens, Greece

IASO Medical center; Harefield Hospital, Royal Brompton and Harefield NHS Foundation Trust, London, UK; Head of Thoracic Department, IASO Hospital, Athens, Greece, and Adj. Ass. Prof. in Robotic Surgery, European University Cyprus.

Dimitrios Kyparissopoulos Graduated from Medical School of the University of Thessaly, Larissa, Greece and begun his fellowship in Cardiothoracic Surgery at the University Hospital of Larissa, Greece, under Prof. Spyrou. In 2007, after being nominated twice with the Golden Medal in EACTS courses in Bergamo, Italy, he decided to continue his Residency abroad, starting in MST Spectrum Twente, Enscede, Netherlands. In 2008 he applied for a Residency Post in Cardiothoracic Surgery in the UK, and he was succesfully interviewed by a panel which chaired Professor Magdi Yacoob, at notorious Harefield Hospital. He finished his training as Cardiothoracic Surgeon at St. Thomas's Hospital, London, UK, and succesfully passed his specialty exams and becomes Cardiothoracic Surgeon. He was employed as Consultant Thoracic Surgeon at Harefield hospital where he worked for 3 years, where he performed more than 1.000 thoracic procedures, with excellent outcomes. He was trained and established VATS Lobectomies as standard practice for Curative Lung Resections and delivered more Cryotherapy treatment than anyone else in the UK. In September 2014 he works as a Consultant Thoracic Surgeon at the John Radcliffe University Hospital of Oxford, which is the centre with the highest rate of VATS Lobectomies in the UK. On top of that, he operates on Sarcoma patients, as Oxford University Hospital is the bigest Sarcoma Centre in the UK and on of the biggest in the world. He remains Honorary Consultant Thoracic Surgeon at Harefield Hospital (Royal Brompton and Harefield NHS Foundation Trust, London, UK. The highest honor and worldwide recognition come in February 2020 when the world-renowned medical journal CTSnet publishes an innovative robotic surgery performed last summer and presented for the first time in medical journals! Mr Dimitrios Kyparissopoulos is currently a Honorary Consultant Thoracic Surgeon at Harefield Hospital, Royal Brompton and Harefield NHS Foundation Trust, London, UK, the only Robotic and Thoracoscopic Minimal Invasive Consultant Thoracic Surgeon in Cyprus and one of the few around the world. Recently he was assigned as the Head of Thoracic Department, IASO Hospital, Athens, Greece and Adjunct Associate Professor in Robotic Surgery at the European University Cyprus.

Speaker's CV



Professor Dr. Konstantinos Dimas

Department of Pharmacology, Medical School of the University of Thessaly, Greece

Dr Konstantinos Dimas is a Professor and Director of the Department of Pharmacology of the Faculty of Medicine, Health Sciences School, University of Thessaly. Since 2007, he has been teaching pharmacology at the Department of Pharmacology, Faculty of Medicine, University of Thessaly, with emphasis on anti-cancer drugs. He has actively participated in many undergraduate, postgraduate and PhD theses. He is currently supervising four PhD theses. He is the author or co-author of over 120 original papers published in peer-reviewed international journals in the field of pharmacology and cancer, more than 10 book chapters and 5 patents with more than 3700 citations and h-index 37 (Scopus, accessed March 2025). He has received research funding of about €1million. He is a member of the editorial board and reviewer of several international scientific journals (Science Advances, Molecular Cancer, Scientific Reports, Molecular Oncology, Biochem Pharm, Int J of Cancer, JPET, Cancer Res, Carcinogenesis etc.) He has been a member of grant/program evaluation committees (GSRT, UICC, Croatian Science Foundation). His research interests focus on the study and development of new anti-cancer drugs, mainly from natural sources (e.g. plant derivatives), the study of new inhibitors of ribosomal p90 S6 kinase, the development of new sigma-2 receptor (sigma-2) ligands as potential targeted cancer therapies and the development of new improved animal models of cancer (mainly human xenografts with emphasis on patient derived xenografts).



Assist. Professor Dr. Nikolas Dietis

University of Cyprus Medical School and the Head of the Experimental Pharmacology Laboratory at UCY, University of Cyprus

Dr. Nikolas Dietis completed his education and training in the UK (BSc Univ.of Portsmouth, BSc Univ.of Nottingham Trent, MRes Univ.of Nottingham Trent, PhD Univ. of Leicester) and has a 5-year experience in the pharmaceutical industry sector (Janssen-Cilag, Lavipharm Hellas) and a 10-year experience in academia (University of Tasmania, Australia; University of Cyprus). His research interests revolve around drug discovery & repurposing using target-based and disease-orientated high-throughput screenings against cellular and behavioural assays for cancer, neurological diseases and pain. He received four research awards, including a Best Paper Award at the prestigious GLOBECOM 2020 Congress for his contributory work on the role of growing bio-nanomachine networks in glioblastoma evolution and progression. In 2018 he established the first Zebrafish Laboratory in Cyprus with the aim to use zebrafish as a model organism for toxicological, behavioural and translational assays in drug profiling and phenotyping against human diseases. Dr Dietis teaches Pharmacology at the MD program and Pharmacogenomics at the Masters in Precision Medicine program at UCY. He has received three Teaching Excellence Awards by the University of Tasmania, and he served as a member of the UCY Center for Teaching & Learning and has been an invited speaker and public advocate for innovation in Medical Education in numerous workshops and education conferences. He is a certified Quality Reviewer of Online Courses by Quality Matters (USA) and is currently a member of the UCY Quality Assurance Committee. Dr Dietis is an EU-registered expert in Pharmacology, a certified Research Evaluator for Greece's General Secretariat for Research and Innovation, a registered speaker for the Young Universities for the Future of Europe Alliance (YUFE) and an Independent Evaluator at the Council of Recognition of Higher Qualifications in Cyprus (KYSATS). Dr Dietis is also a passionate science communicator, with a vigorous public outreach profile through newspaper articles, interviews and social media posts, that aim to engage the general public with evidence-based drug science

Speaker's CV



Dr. Alexis Papadopoulos

Consultant in Respiratory Medicine
Fellowship in Interstitial Lung Disease

Dr Alexis C. Papadopoulos is a Consultant in Respiratory Medicine with extensive clinical and academic experience in Cyprus and the United Kingdom, with a particular specialization in interstitial lung diseases (ILD), idiopathic pulmonary fibrosis (IPF), and chronic respiratory disorders. He completed dedicated training in interstitial lung disease at Oxford University Hospitals and subsequently served as a Consultant in Interstitial Lung Diseases at Wythenshawe Hospital, University of South Manchester NHS Trust. Dr Papadopoulos has an active role in respiratory education and professional development. He has served as a clinical supervisor at the European University of Cyprus and University of Nicosia, as faculty for the European Respiratory Society (ERS) Virtual School on Tobacco Cessation, and as a reviewer for ERS Congress abstracts and clinical cases. He has also contributed to the European HERMES examination as an MCQ author and regularly lectures on ILD, pulmonary fibrosis, sarcoidosis, asthma, COPD, and other respiratory conditions. He has held leadership roles within the respiratory community in Cyprus, serving as President of the Cyprus Respiratory Society from 2023 to 2025. He is a Fellow of the American College of Chest Physicians, holds the European Diploma in Respiratory Medicine, and is a member of the European Respiratory Society, British Thoracic Society, and World Association for Sarcoidosis and Other Granulomatous Disorders. He also holds an MSc in Management of the Critically Ill from the University of Nottingham and an IOC Diploma in Sports Medicine. His current professional interests are centered on advancing the diagnosis and management of interstitial lung disease and pulmonary fibrosis through evidence-based clinical practice, research, multidisciplinary collaboration, and education.



Dr. Philippos Demetriou

The Center for the Study of Haematological and Other Malignancies (CSHM), Karaiskakio, Nicosia, Cyprus

Dr Philippos Demetriou is a Research Scientist at the Center for the Study of Haematological and Other Malignancies (CSHM) in Nicosia, Cyprus. He received his BSc (Honours) in Biochemistry from Imperial College London and subsequently completed an MSc in Integrated Immunology and a PhD in Molecular and Cellular Medicine at the University of Oxford. His research focuses on fundamental T-cell immunobiology and the dysregulation of T-cell responses in cancer and autoimmune disease. He is particularly interested in identifying new approaches to manipulate the immune system therapeutically and in developing strategies that enhance adoptive T-cell and CAR T-cell therapies.



Dr. Andreani Odysseos

Director of Biomedical Research
EPOS-Iasis, R&D

Andreani D. Odysseos, is a Graduate of Athens University Medical School with graduate research and post-doctoral clinical studies at Dana – Farber Cancer Institute and Fred-Hutchinson Cancer Research Center. With 1st Price winner of CyEC and a designated Academic position at the University of Cyprus she established a vibrant Innovative SME for Cell Therapies and Hybrid Nano-theranostics. She is an active member of the Harvard Club of Cyprus. As Research Director of EPOS-Iasis, R&D she leads revolutionary translational cancer research in nano-biotechnology, Externally Controllable Molecular Communications for sensing and therapy, including wearable and implantable theranostic devices, crossing the boundaries of clinically applicable Digital Twins and the Internet of BioThings. Dr Odysseos has attracted competitive funding amassing € ~8.0 M, including MSCAs, IMI, R& I Actions and three most prestigious EIC Pathfinder Grants. Her findings in Optical Biosensing Interfaces and Targeted Nano-therapeutics are secured in 8 patents (5US, 2EPO, 1WIPO) and are published in peer-reviewed papers, book chapters and monographs. Her contribution to clinically applicable emerging technologies has been acknowledged with an honorary membership by the International Academy for Medical Education (IAMED).



Dr Achilleas Toursidis

Vascular Surgeon
Ygia Polyclinic, Limassol, Cyprus

Dr. Achilleas Toursidis is a Vascular Surgeon based in Cyprus. He graduated from the State Medical Academy of Stavropol, Russia (2006). He completed postgraduate training in General Surgery in Russia and Cyprus, followed by specialist training in Vascular Surgery at Nicosia General Hospital, Cyprus, obtaining his specialist title in 2016. Dr. Toursidis holds an MSc in Endovascular Techniques from the National and Kapodistrian University of Athens, in collaboration with the University of Milano-Bicocca (2015–2016). His MSc thesis focused on the use of Excimer Laser in patients with critical limb ischemia. His clinical and academic interests include peripheral arterial disease, endovascular interventions, chronic venous disease, duplex ultrasonography, carotid disease, and minimally invasive treatment of venous disorders.

Speaker's CV



Dr. Vicky Zeniou

Cardiology Consultant
Nicosia Polyclinic

Dr. Zeniou has been practicing Cardiology in Cyprus since 2019 with a particular interest in heart failure, valvular heart disease, coronary artery disease, arrhythmias, the treatment of hypertension, the treatment of dyslipidemia, and cardiac rehabilitation. After 2004, when she obtained a degree in Health Sciences from the University of Western Ontario in Canada, she completed her medical degree at Debrecen University in Hungary, and until 2018 she practiced as a Cardiology resident at Hadassah Medical Centre in Israel. She has publications in medical journals and has presented at medical conferences in English, Greek, and Hebrew. She worked at the American Medical Center in Nicosia until 2020 in the emergency department, inpatient and outpatient care. Since 2020, she has been the Cardiologist for the cardiac rehabilitation program of the Nicosia Association of Heart Patients. Dr. Zeniou was a Consultant Cardiologist at the EIMC Medical Services Clinic and at the Platon Medical Centre in Nicosia. Since 2024, she has been practicing outpatient and inpatient Cardiology at the Nicosia Polyclinic. Dr. Vicky Zeniou is on the board of the Cyprus Atherosclerosis Society, a member of the European Society of Cardiology, the Hellenic Cardiological Society, the Cyprus Society of Cardiology, and the European Atherosclerosis Society. Dr. Zeniou also participates in committees for National Strategies with the Ministry of Health. Beyond her cardiology practice, Dr. Zeniou's beliefs support education, information, and the promotion of health, and she states that "Proper guidance, a healthy diet, and proper physical exercise in our daily lives will help maintain balance in our lives, so that we can have physical and mental health without diseases."



Clin. Assoc. Prof. Dr Andreas Synetos

School of Medicine, European University Cyprus
Interventional Cardiologist at Hippokrateion Hospital and Consultant at the First Department of Cardiology at the Medical School of Athens, Greece

Clinical Associate Professor of Cardiology at the European University of Cyprus and Interventional Cardiologist, Consultant at the 1st Department of Cardiology, Medical School, University of Athens. He completed his fellowship in Cardiology at the 1st Department of Cardiology, Medical School, University of Athens, and at Emory University, Atlanta, USA. He is a member of the European Society of Cardiology (FESC) and the American College of Cardiology (FACC). He has more than 180 full publications in peer-reviewed journals indexed in PubMed and has delivered over 700 presentations at major international congresses, including the annual meetings of the American Heart Association, the American College of Cardiology, and the European Society of Cardiology.

His research and academic interests include experimental and clinical cardiology, experimental study of stents, epidemiology of cardiovascular risk factors, the study of the coronary vulnerable plaque, intravascular imaging and thermography, clinical and experimental studies in patients with severe aortic valve stenosis, the effect of bisphosphonates in experimental models of aortic valve stenosis, and chemical renal denervation.

During the last five years, he has performed more than 1500 angioplasties, of which over 100 were primary angioplasties. He has also participated in more than 100 percutaneous aortic valve replacements (TAVI), as well as percutaneous occlusions of open foramen ovale and atrial septal defects (ASDs). He has a strong interest in the use of endocoronary imaging systems such as intracoronary ultrasound (IVUS, Boston Scientific and Volcano) and optical coherence tomography (OCT). He has extensive experience in the invasive treatment of coronary disease, including complex angioplasties involving chronic total occlusions, trunk disease, bifurcation lesions, and the use of Rotablator and shock wave therapy.

Speaker's CV



Professor Dr. Konstantinos Makaritsis

Professor of Internal Medicine University of Thessaly Medical School Larissa, Greece

Konstantinos P. Makaritsis, M.D., Ph.D was born in 1961 in Athens, Greece. He graduated in 1985 from the University of Patras Medical School, Patras, Greece. He received his Doctorate Thesis in Cardiovascular Medicine from the University of Athens, School of Medicine, Athens, Greece in 1994. He has been awarded the ECFMG (USMLE) Certificate in 1995 by the USMLE Council. He is also an Instructor in ATLS (Advanced Trauma Life Support) by the American College of Surgeons. He was trained as a Resident in Internal Medicine from 1990-1995 at the Department of Clinical Therapeutics, University of Athens School of Medicine, "Alexandra" Hospital, Athens, Greece. He was also trained as a postdoctoral Clinical & Research Fellow for 2.5 years at the Boston University, Boston Medical Center, Department of Medicine, Section of Hypertension and Atherosclerosis, Boston, MA, USA. He is a Fellow of the European Society of Hypertension (FESH), Fellow of the European Stroke Organization (FESO) and Fellow of the European Federation of Internal Medicine. He is also a member of the Hellenic Society for the Study of Stroke, the American Heart Association, the Hellenic Society of Hypertension, the Hellenic Society of Internal Medicine and the Hellenic Society of Atherosclerosis. He is a Reviewer in several medical journals, including International Journal of Stroke, International Journal of Genomics, BMC Cardiovascular Disorders, BMC Neurology, Frontiers in Pharmacology, Frontiers in Cardiovascular Medicine, Frontiers in Neurology, Open Journal of Surgery.

He has published more than 100 papers with more than 4300 citations and an author h index of 34 (September 2021). He has also participated as a coauthor in 5 chapters in 3 books. He is currently serving as a Professor of Internal Medicine at the Department of Medicine, University of Thessaly Medical School, Larissa, Greece and as Chief of the Hypertension and Lipid Disorders Outpatient Clinic at the Department of Medicine, University of Thessaly Medical School, University Hospital of Larissa, Larissa, Greece.



Adjunct Professor Dr. Andreas Pittaras

Clinical Hypertension Specialist ESH
George Washington University, Washington DC, USA
Adjunct Professor, School of Medicine, European University Cyprus

Andreas Pittaras was born in Athens, Greece in 1959. He is currently Ass. Professor in the Faculty of medicine at the George Washington University, Washington DC, Director at MEDITON Medical Center Athens Greece, Head Consultant Cardiologist and Hypertension Specialist at Hypertension & Cardiovascular Prevention Clinic, Cardiology Department, Asklepeion Hospital, Athens, Greece, and President of Hellenic Society of Cardiovascular Prevention. He graduated (1984) from Medical School of National and Kapodistrian University, Athens, Greece. He then completed his clinical training in Cardiology (1992) at "Alexandra" Therapeutic University clinic, Athens, Greece. He has worked for 4 years (1993-1997) as cardiology research fellow in Hypertension and Atherosclerosis Institute at Veterans Hospital, Washington DC (Georgetown University educational program), and then currently cardiovascular research associate at the same department (George Washington University educational program). His research focuses on cardiovascular system, hypertension, coronary artery disease, arrhythmias, heart failure, lipids and exercise. He has published 40 papers in peer-reviewed journals (NEJM, Hypertension, Circulation, JACC etc), and 5 book chapters. He has given more than 100 lectures in international meetings, more than 400 lectures in national meetings, with several awards for best and top scoring abstracts in international meetings (AHA, ACC, ESC, ESH, ASH).

Speaker's CV



Clinical Professor Dr. Ioannis Tzanavaros

Adult and Pediatric Cardiac Surgeon; Director Cardiac Innovation Center
University of Nicosia Medical School
Apollonion Private Hospital, Nicosia Cyprus

Dr. Ioannis Tzanavaros is the Director of the Cardiac Innovation Center at Apollonio Hospital and a Clinical Professor at the University of Nicosia Medical School.

Dr. Tzanavaros holds a Medical Degree (MD) from the National and Kapodistrian University of Athens Medical School. He is a board-certified cardiac surgeon and congenital and pediatric cardiac surgeon. His Doctorate Thesis was completed at Charité / University Medicine Berlin, where he graduated with magna cum laude.

Throughout his career, Dr. Tzanavaros has held several key positions in renowned medical institutions. He started his professional journey with an internship at the Sana Heart Center Cottbus in Germany, where he continued as a resident in cardiac surgery and later obtained his specialty as a cardiac surgeon in 2007. He advanced to roles such as attending surgeon and senior consultant at Sana Heart Surgery Stuttgart, eventually heading the Department for Surgery of Congenital Heart Defects.

Currently, as the Director of the Cardiac Innovation Center at Apollonion, Dr. Tzanavaros leads a team dedicated to advancing cardiac care through innovative surgical techniques and cutting-edge research. Under his direction, the center aims to provide state-of-the-art care and improve surgical outcomes for patients with complex cardiac conditions.

Dr. Tzanavaros's areas of interest include the full spectrum of acquired and congenital heart diseases, with a particular focus on minimally invasive heart surgery. He has made significant contributions to the field through his research on atrial fibrillation and congenital heart defects, as well as innovations in cardiac surgery techniques. His dedication to advancing cardiac care is reflected in his numerous publications on these topics.



Professor Dr. Karsten Kristiansen

Laboratory of Integrative Biomedicine; Department of Biology, University of Copenhagen, Denmark and Institute of Metagenomics, BGI-Research, Shenzhen, China; And Institute of Metagenomics, Qingdao-Europe Advanced Institute for Life Sciences, Qingdao, China

Karsten Kristiansen is Professor of Molecular Biology and heads the Laboratory of Integrative Biomedicine at the Department of Biology, University of Copenhagen. In 2004 he was appointed advisor to BGI, and from 2017 he is Professor and Director at BGI-Research, Shenzhen, China. Since 2019 he is also Professor and Director at the Institute of Metagenomics, Qingdao-Europe Advanced Institute for Life Sciences, Qingdao, China. After graduation from the University of Copenhagen, he held research positions at the Max-Planck-Institut für Molekulare Genetik in Berlin and at the Institut de Biologie Physico-Chimique, Fondation Edmond de Rothschild, in Paris. He was full professor and head of Department of Molecular Biology, later Department of Biochemistry and Molecular Biology, University of Southern Denmark, 1992-2008, before he was recruited as professor and Head of the Department of Biology, University of Copenhagen in 2008. Central themes of the research of Professor Kristiansen include the interaction between different nutrients in modulating energy homeostasis and how interactions between the host genome, the host immune system, and the gut microbiota, regulate gut health and host metabolism, with a focus on inflammation, obesity, obesity-associated diseases including cardiovascular diseases. Professor Kristiansen was the coordinator of the Danish Pangenome Project. His research groups now further explore the interaction between the brain and the gut microbiota, and recently he initiated work to isolate communities of soil-borne bacteria to be used as bio-pesticides. For these projects, his research groups use a combination of molecular biology approaches, animal and plant studies, metagenomics and genomics. He has published more than 480 articles in refereed journals, many of which in high-ranking journals such as Science, Nature, and Cell, and he is a WoS Clarivate highly cited researcher.

Speaker's CV



Professor Dr. Lambros Michalis

Professor of Cardiology in the School of Medicine, University of Ioannina, Greece; Director of University Hospital of Ioannina 2nd Department of Cardiology; President of the UEMS Cardiology Section and Vice President Elect of Hellenic Society of Cardiology.

Professor Lampros K. Michalis was born in Arta, Greece. He graduated with distinction from the Medical School, University of Athens, Greece in 1984 and was awarded with Distinction for his PhD Thesis from the same University in 1989. In 1992 he became Member of the Royal College of Physicians, UK. He did his whole training in Cardiology in the UK and then worked as a Lecturer in the School of Post Graduate Medicine of Keele University, UK (September 1993-May 1995). He was elected Lecturer of Cardiology at the Medical School, University of Ioannina, Greece (May 1995) and subsequently, Associate Professor (August 1999) and Professor of Cardiology (May 2005) in the same Medical School. In 1997 he became Fellow of the European Society of Cardiology. He has been the Director of the Second Department of Cardiology, University Hospital of Ioannina since 2014 and the President of the UEMS Cardiology Section since 2022.

He has published >320 papers with >13,500 citations and an h-index of 59 (Sep 2025). and he has been an invited speaker in many national and international congresses. He has participated in many International Multicenter Studies and Registries and has been a reviewer in 20 international peer review journals. His research interests focus on: (a) clinical and experimental studies in Cardiology and more specifically Interventional Cardiology, Valvular Heart Disease and Structural Heart Disease, (b) bioengineering, focusing on development of hybrid imaging techniques of the coronary and peripheral arteries, and (c) the association of blood flow and development and progression of atherosclerosis. He is currently the President-Elect of the Hellenic Society of Cardiology (2027-2029).



Professor Dr. Randall C. Starling

Professor of Medicine; Cleveland Clinic Lerner College of Medicine of the Case Western Reserve University Kaufman Center for Heart Failure Treatment and Recovery, Cleveland Clinic Foundation, Cleveland, Ohio USA

Randall C Starling is Professor of Medicine Cleveland Clinic Lerner College of Medicine of the Case Western Reserve University, is a Staff Cardiologist in the Robert and Suzanne Tomsich Department of Cardiovascular Medicine. Since March 1, 2022 he is serving as Interim Head of the Section of Heart Failure and Transplant Medicine and Medical Director of the Kaufman Center for Heart Failure Treatment and Recovery. Previously he served as Section Head of Heart Failure from 2003 – 2016. He also served as Vice Chairman of Cardiovascular Medicine, Operations from 2006-2016. He was interim chair, cardiovascular medicine, Cleveland Clinic Florida from 2011 -2013. Dr Starling was an elected member of the Cleveland Clinic Board of Governors from 2010-2015. He served on the Cleveland Clinic Board of Trustees 2013-2015 and the Cleveland Clinic Board of Directors 2014-2015.

Dr. Starling is board-certified in internal medicine, cardiovascular medicine, and advanced heart failure and transplant cardiology. He was appointed to Cleveland Clinic in 1995 as a Staff Physician and Director of the Heart Transplant Medical Services. He has a joint appointment as a Staff Physician in Cleveland Clinic's Multi-Organ Transplant Center and Critical Care. He is a fellow of the American College of Cardiology, American Heart Association, Heart Failure Society of America, European Society of Cardiology, and the Heart Failure Association of the ESC. He has served as UNOS Medical Director of the Heart Transplant Program from 2003 – 2018. He served on the American Board of Internal Medicine, Advanced Heart Failure and Transplant Cardiology Exam Writing Committee from 2009-2015.

Education and Training: Dr. Starling completed his undergraduate work in biology and graduated cum laude from the University of Pittsburgh. He continued his education at the University Of Pittsburgh School Of Public Health, where he graduated summa cum laude with a Master's Degree in Public Health. He received his medical degree at Temple University, Philadelphia, where he was an Honor Graduate, was inducted into the Alpha Omega Alpha medical honor society and was awarded the Mosby Book Scholarship. He returned to the University of Pittsburgh Medical Center to complete his internship and residency in internal medicine. During the course of his clinical training and association with the University of Pittsburgh Medical Center, Dr. Starling became Chief Medical Resident, Instructor in Medicine and Medical Director of the cardiac transplant program. Dr. Starling completed a fellowship in cardiology from the Ohio State University (OSU), where he was also Associate Professor of Medicine and Medical Director of the OSU Cardiac Transplant Program.Research, Publications and Speaking: Dr. Starling has been a principal or co-principal investigator on numerous clinical trials, including National Institutes of Health (NIH) grant-funded trials and industry-sponsored trials. He has conducted numerous research trials including multicenter, randomized trials related to cardiac transplantation and heart failure. He served at Protocol Chair for Clinical Trials in Organ Transplant heart CTOT-05, 011, 018, and 023. Dr. Starling is particularly interested in devices and other forms of surgical therapy for patients with heart failure.

He has been published in scientific and professional journals and authored numerous chapters in medical textbooks. Dr Starling has published more than 500 peer reviewed articles and numerous book chapters. He has over 106,000 citations, h-index 111 and i10-index 460. Dr. Starling is a past member of the Editorial Board of the Journal of the American College of Cardiology, currently on the editorial board of JACC Heart Failure, Circulation and is an associate editor for Heart Failure Reviews, and is associate editor for the Journal of Cardiac Failure. He is past Editor of the chapter on Heart Failure in the American College of Cardiology Self-Assessment Program (ACCSAP VI). He has served as an editorial consultant on ABC's "20/20," CNN's "Heroes in Medicine" and several PBS televised programs. Dr. Starling was awarded the Alumni Achievement Award from the Temple University Katz School of Medicine in 2016 for Distinguished Contributions to Medicine. He has served on the board of directors of the United Network of Organ Sharing, International Society of Heart and Lung Transplantation, Heart Failure Society of America and is past treasurer of the Heart Failure Society of America and past president 2018 - 2019. He initiated the heart failure fellowship at Cleveland Clinic in 1995 which has trained and graduated over 100 fellows over the past 20 years. Numerous former trainees lead heart failure programs globally. Dr. Starling has mentored numerous trainees including medical students, internal medicine and cardiology trainees, and junior cardiology faculty.

Speaker's CV



Associate Professor Dr. Andreas Xanthopoulos

University General Hospital of Larissa, Larissa, Greece

Doctor Andreas Xanthopoulos MD, PhD, FESC, FACC, FHFA, FHFSA is currently working as a consultant cardiologist in the University Hospital of Larissa, Greece. His research is mainly focused on heart failure, amyloidosis and pulmonary hypertension. He was trained in advanced echocardiographic techniques in the University Hospital of Vienna, Austria. He has successfully completed an 18-month fellowship in advanced heart failure (Heart and Vascular Institute, Kauffman Center for Heart Failure, Department of Cardiovascular Medicine, Cleveland Clinic, Cleveland, OH, USA). In June 2024, Dr Xanthopoulos was elected Assistant Professor of Cardiology in the University of Thessaly. He has authored several papers (>130) and book chapters (>10). He has served as Guest Editor in 5 journals. Dr Xanthopoulos is a reviewer in more than 30 journals including Circulation, European Journal of Heart Failure, American Journal of Transplantation, European Journal of Preventive Cardiology, Heart Failure Reviews, and ESC Heart Failure. He has participated in several international multi-center clinical trials. He is the Scientific Supervisor of the Heart Failure and Amyloidosis Outpatient Clinic (University Hospital of Larissa). He is a fellow of the European Society of Cardiology (FESC), American College of Cardiology (FACC), Heart Failure Association of ESC (FHFA), and the Heart Failure Society of America (FHFSA) and a member of the Echocardiography Association (EAE), Hellenic Cardiological Society (HCS), European Association of Preventive Cardiology (EACPR), and European Association of Cardiovascular Imaging (EACVI).



Professor Dr. Haralampos Milionis

Professor of Internal Medicine at the School of Medicine, University of Ioannina, Greece. President of the Hellenic Atherosclerosis Society (HAS)

Dr. Haralampos Milionis was born in 1968 in Ioannina. He is currently Professor of Internal Medicine at the School of Health Sciences, Faculty of Medicine, University of Ioannina, Ioannina, Greece. He graduated from the Medical School of the University of Ioannina in 1991 with "Excellent" and received his doctorate in 1999.

His research activity and training were enhanced during sabbaticals at the Department of Molecular Biology and Clinical Biochemistry at the Royal Free Hospital, UCL, London, United Kingdom in 1999 and at the Vascular Stroke Unit of the Center Hospitalier Universitaire (CHUV). Vaudois, Lausanne, Switzerland in 2011.

He currently serves as the Academic Head and Director of the 1st Division of Internal Medicine and the Infectious Diseases Unit (as of January 2020) of the University General Hospital of Ioannina as well as the University Immunology Research Laboratory of the Department of Internal Medicine.

He runs the Outpatient Clinic of Cardiometabolic Diseases at the PGNI and leads the Cardiovascular Risk Modification Clinic for Children and Adolescents of the University Hospital of Ioannina, which participate in the Lipid Clinic Network of the European Society of Atherosclerosis.

He is a member of the Atherothrombosis Research Center of the University of Ioannina.

He is an active member of the Hellenic (EEA) and the European Atherosclerosis Society (EAS) and a Fellow of the Hellenic (HSO) and the European Stroke Organization (ESO). He serves as President of the Board of Directors of the Hellenic Atherosclerosis Society and Board Member of the Hellenic Stroke Organization.

His research interests focus on the pathophysiology of atherothrombosis and disorders of lipid metabolism, the clinical and epidemiological study of risk factors for cardiovascular disease, as well as the secondary prevention of stroke and the prognosis of vascular stroke.

He is involved in a significant number of observational clinical studies and randomized clinical trials. He has authored and co-authored more than 400 publications in peer-reviewed international journals (h-index 53, citations>10000) and serves as a reviewer and member of the Editorial Board of Greek and international journals.

Speaker's CV



Professor Dr. Katerina K. Naka

Professor of Cardiology, Faculty of Medicine, School of Health Sciences, University of Ioannina, Second Department of Cardiology, University Hospital of Ioannina, Ioannina, Greece

Katerina K. Naka MD, PhD, FESC was born in Ioannina, Greece and graduated with distinction from the University of Ioannina Medical School. She accomplished her PhD thesis in the University of Wales College of Medicine on the role of arterial stiffness in acute physical exercise in healthy subjects and patients with heart failure, in 2003. She was fully trained in Cardiology in the University Hospital of Ioannina. She has been working as an academic cardiologist in the Second Department of Cardiology, Faculty of Medicine, School of Health Sciences, University of Ioannina since 2006 and is currently a Professor. She has full-time clinical duties in the Second Department of Cardiology in the University Hospital of Ioannina, where she serves as the Head of the Heart Failure Unit. She has been heavily involved in pre- and post-graduate cardiology education at a local and national level and with the European Society of Cardiology. She is the Chair of the Committee of Pre-graduate Studies in the University of Ioannina Faculty of Medicine, a Board member of the European Exam on Core Cardiology (EECC) and Chair of the Selection Committee of the EECC. She has published ca. 160 papers and numerous abstracts with >9,000 citations and an h-index of 44 at present. Her research interests lie within heart failure and cardiomyopathies, atherosclerosis and cardiovascular prevention, non-invasive and invasive cardiovascular imaging, machine-learning and biomedical engineering. She is currently the President-Elect of the Heart Failure Working Group of the Hellenic Cardiac Society.



Dr. Costas Michaelides

Consultant Neurologist
American Medical Center/American Heart Institute Cyprus

Dr. Costas Michaelides, is a consultant Neurologist at the American Medical Center in Nicosia, Cyprus. He attended Imperial College School of Medicine at St. Mary's, London between 1994 and 1999. Following graduation he specialised in Internal Medicine and became a Member of the Royal College of Physicians of the United Kingdom (MRCP). He subsequently moved to the United States where he completed specialisation in General Neurology at Boston University in 2006. He pursued further sub-specialisation training in Neurophysiology and Epilepsy at Massachusetts General Hospital, Harvard Medical School, developing a special interest in the pre-surgical assessment for Epilepsy Surgery. In 2008 he became a Diplomate of the American Board of Neurology. He is the current President of the Cyprus Neurological Society and the President of the Cyprus Chapter of the International League against Epilepsy. Dr. Michaelides is involved in medical student teaching and has published his research in peer-reviewed journals and has contributed chapters to medical textbooks. He has given talks at both local and international conferences, and he has also been involved in the promotion of public awareness about neurological diseases in the Cyprus media.



Professor Dr. Vassilios Vassilikos

Aristotle University of Thessaloniki, Director of 3rd Cardiology Clinic Cardiology Department Hippokrateion General Hospital, Thessaloniki

Vassilios Vassilikos completed his medical education (1983) and obtained his Doctoral Thesis (1989) at the Aristotle University of Thessaloniki, Greece.

He was trained in Cardiology in Thessaloniki and UK, where he further specialized in Invasive Cardiology and Electrophysiology at St Bartholomew's Hospital London. He practiced as consultant Cardiologist for several years at the Onassis Cardiothoracic Centre, Athens. In 2014 he was elected Professor in Cardiology and Director of the 3rd Cardiology University Department, Thessaloniki. Since 2019 he is an Adjunct Professor at the European University of Cyprus.

He is the past President of the Hellenic Working Group on Pacing and Electrophysiology, and Treasurer of the Hellenic Cardiac Society. He is a committee member of the Working Groups for training in undergraduate and post-graduate Medicine, the National Guidelines for training in Cardiology, drug prescription on arrhythmias, Specialty Boards in Cardiology in Greece, and the new English-speaking Undergraduate Program in Medicine at the Aristotle University of Thessaloniki. Also currently he is the President of ISHNE (International Society for Holter and Non-Invasive Electrocardiology).

He is the founder and the PI of the National Registry of Ablations and CRM Devices in Greece. Has been working on the field of signal processing related to the prediction of atrial fibrillation occurrence and in digital Cardiology (development of smartphone apps for patients with various cardiac problems).

He participated in numerous international trials as Primary Investigator, published extensively, and actively participates in local, regional and international scientific meetings.

He is a Fellow of the American College of Cardiology, the European Society of Cardiology, and member of numerous National and International scientific societies.

Speaker's CV



Dr. George K. Andrikopoulos

President of the Hellenic Arrhythmia Institute
Director of Cardiology and the department of Electrophysiology and Pacing, Henry Dunant Hospital

Dr George Andrikopoulos obtained his medical diploma from the Medical School of Athens University (1990) and his basic training as a Cardiologist at Hippokration Hospital in Athens (1999). As a research fellow of the European Society of Cardiology he was trained on cardiovascular genetics at the Department of Biological Sciences, University of Warwick, UK (2000) and as a Clinical Research Fellow at Walsgrave Hospital, Coventry, UK (1999). He received his PhD at Cardiovascular genetics from the University of Athens (2004).

He is president of the Hellenic Arrhythmia Institute (2018-2021), past president of the Institute for the Study and Education on Thrombosis and Antithrombotic Therapy (2016-2018), founding member of the Hellenic Cardiovascular Research society (2007) and special scientific advisor of the board of the Hellenic Heart Foundation. Regarding his research activities he has published 132 manuscripts cited at Pubmed and a total of more than 300 papers. He was National coordinator of the EuroHeart project and member of the board for WP5 (2007-2009), National coordinator of the CHOB project of the European Heart Network (2004-2006), Principal investigator of the GEMIG, HELIOS, RHYTHMOS, TARGET, MANAGE-AF, PHAETHON, and other studies and co-principal investigator of the multicenter, international, SPICE study.

He works at Henry Dunant Hospital as a director of the 1st department of Cardiology and the department of Electrophysiology and Pacing.



Dr. Savvas Telonis

Molecular Virology Department
The Cyprus Institute of Neurology & Genetics, Nicosia, Cyprus

Dr Savvas Teloni is an Associate Scientist in the Department of Molecular Virology at the Cyprus Institute of Neurology and Genetics (CING), where he also serves as an Associate Faculty Member at the school. He supervises postgraduate students and research interns and contributes to the coordination of multidisciplinary research projects. He holds a BSc in Biological Sciences, an MSc in Medical Genetics and a PhD in Biomedical Sciences. His doctoral research focused on colon cancer, stem-cell-based therapeutic approaches and the microbiome, with particular emphasis on the mechanisms underlying early-onset intestinal dysplasia and potential therapeutic strategies. Through this work, he developed expertise in genetics, cancer biology, stem-cell dysfunction and the molecular mechanisms contributing to disease development. His current research focuses on virus–host interactions, persistent viral infection, ageing, intestinal stem-cell dysfunction and tumour initiation, using Drosophila melanogaster and mammalian cell models. He leads VirAge, a project funded by the Cyprus Research and Innovation Foundation, which investigates how persistent viral infections influence intestinal dysplasia, tissue homeostasis, lifespan and age-associated tumour formation. His recent work, published in iScience in 2025, identified aberrant intestinal progenitor-cell clustering as an early-life biomarker of ageing in Drosophila. Dr Teloni is actively involved in molecular diagnostics, translational virology, molecular epidemiology and viral surveillance, with experience in molecular testing for adenovirus, human papillomavirus and SARS-CoV-2, as well as viral neutralisation assays. His research combines molecular virology and genetics with cell-based and in vivo disease models to investigate clinically relevant mechanisms underlying infection and associated disease. His broader scientific goal is to connect mechanistic virology with clinically relevant questions in chronic disease, cancer and healthy ageing.

Speaker's CV



Professor Dr. Antonis Kirmizis

Professor of Epigenetics and Cancer Biology; Department of Biological Sciences
University of Cyprus, Cyprus

Antonis Kirmizis is a professor of Epigenetics and Cancer Biology in the Department of Biological Sciences at the University of Cyprus. He received his PhD in Molecular and Cellular Biology at the McArdle Laboratory for Cancer Research at the University of Wisconsin-Madison, USA. He then completed postdoctoral work in the field of Epigenetics as an EMBO and Marie Curie fellow at the Gurdon Institute of Cambridge University, UK. Since 2010, Antonis heads his own research lab in Epigenetics and Gene Regulation (www.kirmizislab.com), which focuses on deciphering functional and regulatory mechanisms of histone modifications in the context of health and disease. His lab was the first to define the cellular role of the previously uncharacterised histone N-terminal acetylation and of its associated enzyme in transcription and cell growth. Recently, his group has explored a new link at the interface of epigenetics and cellular metabolism. In general, his studies are driven by the fact that deregulation of epigenetic mechanisms lead to diseases like cancer and the overall goal of his research is to identify new molecular targets and strategies for cancer therapy. Since the launch of his group, Antonis has attracted considerable research funding including a prestigious ERC grant, various Marie Skłodowska-Curie grants, several 'Excellence' grants from the Cyprus Research and Innovation Foundation (RIF) and funding from the Cyprus Cancer Research Institute (CCRI). He serves on the Editorial Board of several journals and his lab is involved in many international scientific organisations and networks like the NUCLEAR doctoral network, the Epigene3Sys network, and COST actions such as Epichem and the International Nucleome Consortium.



Professor Dr. George Boustras

Professor in Risk Assessment, European University Cyprus

George is Professor in Risk Assessment at European University Cyprus, Dean of the Ioannis Gregoriou School of Business Administration and Director of the Centre of Risk and Decision Sciences (CERIDES).

George is a PhD in Probabilistic Fire Risk Assessment from CFES at Kingston University London, he was Honorary Research Fellow at CPSE at Imperial College London (2003 – 2005), and KTP Research Fellow at FSEG at the University of Greenwich (2009).

He sits at the Management Committee of Secure Societies – Protecting Freedom and Security of Europe and its citizens of "HORIZON 2020". He was Representative of the Republic of Cyprus in the Socio-Economic Committee of the European Chemicals Agency (ECHA) and Member of the Academic Committee of ERNCIP – the European Research Network of Critical Infrastructure Protection at JRC Ispra.

He was appointed by the Ministerial Council of the Republic of Cyprus to Head the Special Task Force that overlooked the modernization of the Fire Services. He was hired by World Bank to contribute to the modernisation of licensing services provided by the Fire Service of the Hellenic Republic. The President of the Republic of Cyprus appointed him, as Vice President in the Energy Strategy Council. He consulted the Ministry of Defense of the Republic of Cyprus in the Risk Assessment of Unexploded Ordnance as part of Gas Exploration.

George is Editor-in-Chief of Safety Science (Elsevier) and Member of the Editorial Board of Fire Technology (Springer), the International Journal of Emergency Management and International Journal of Critical Infrastructure (both Inderscience). He (co-)supervises 7 PhD students.

Speaker's CV



Assoc. Prof. Dr Carsten Werner Lederer

Senior Scientist, Head of Department, Blood Disorder Genetics & Thalassemia, The Cyprus Institute of Neurology & Genetics (CING)
Assoc. Prof. and Program Coordinator, CING Postgraduate School

Dr Lederer is Senior Scientist and Department Head of Blood Disorder Genetics & Thalassemia at the Cyprus Institute of Neurology & Genetics. He is author of 68 peer-reviewed articles with over 3500 literature citations and an h index of 26 (i10 index 45).

Key activities in his department include (i) translational research for the discovery of biomarkers and disease modifiers, (ii) population-wide diagnostics, clinical hematology and preimplantation genetic testing for a range of genetic disorders, (iii) bioinformatic development of genetic databases, patient registries, variant curation and epidemiology, (vi) gene editing and advanced therapy development for rare red cell disorders, and (v) education and training in the research and diagnosis of inherited blood diseases.



Professor Dr. Prodromos A Kaplanis

Senior Medical Physicist of the Medical Physics Department at Nicosia General Hospital, Medical Imaging & Biosignal Analysis

Prodromos A Kaplanis is an Expert in Medical Physics and Radiation Protection. Between 1988 and 1995 he worked as the Technical Director in a private company, dealing with installation and maintenance of high-tech medical equipment. In 1995 he was appointed as a Medical Physicist in the Ministry of Health, whereas in 2016 he was promoted Head of the Medical Physics Department. He is a graduate of the Higher Technical Institute, and holds the titles of BSc (Hons), M.Sc. and Ph.D. (Biophysics), as well as M.Sc. in Health Care Management. He is President of the Cyprus Association of Medical Physics and Biomedical Engineering. He has been working closely with the International Atomic Energy Agency since 2002 and has offered services and advice in many countries in Europe and Africa. Prodromos has extensive University teaching experience, holds the title of Adjunct Professor and is author or co-author in 30 articles. Lately he is examining the potential of AI in Medical Physics and has given a number of lectures in international and local conferences. In addition to Medical Physics, he is interested in Sports, Music, History, Art and Historical Literature.



Assoc. Professor Christos Dimopoulos

Associate Professor of Computer Science & Engineering, European University Cyprus; Director of Science in Civil Protection, CERIDES

Dr. Christos Dimopoulos is an Associate Professor of Computer Science & Engineering at European University Cyprus. He is the co-founder of the Centre of Excellence in Risk and Decision Sciences (CERIDES), where he is acting as Director of Science in Civil Protection. He received his MSc and PhD degrees in Control Engineering from the University of Sheffield. He is currently using his extensive multidisciplinary background for the benefit of advancing the body of knowledge in the domain of Disaster Management and Occupational Health & Safety, and for improving Civil Protection practices with a special focus on the evaluation of disaster preparedness exercises. He has served as project coordinator and researcher in numerous European funded research projects. He has also served as Head Evaluator in multiple Civil Protection Full-Scale Exercises funded by DG-ECHO. He has published a considerable number of refereed articles and book chapters in Q1 Engineering and Safety Journals. He currently serves as Editorial Board Member of the Safety Science Journal. He has received the 'Outstanding Paper of the Year Award' by the Neural Networks Council of IEEE. He is the recipient of the Honorary Award by the Cyprus Environmental Commissioner for providing services to the Republic of Cyprus.

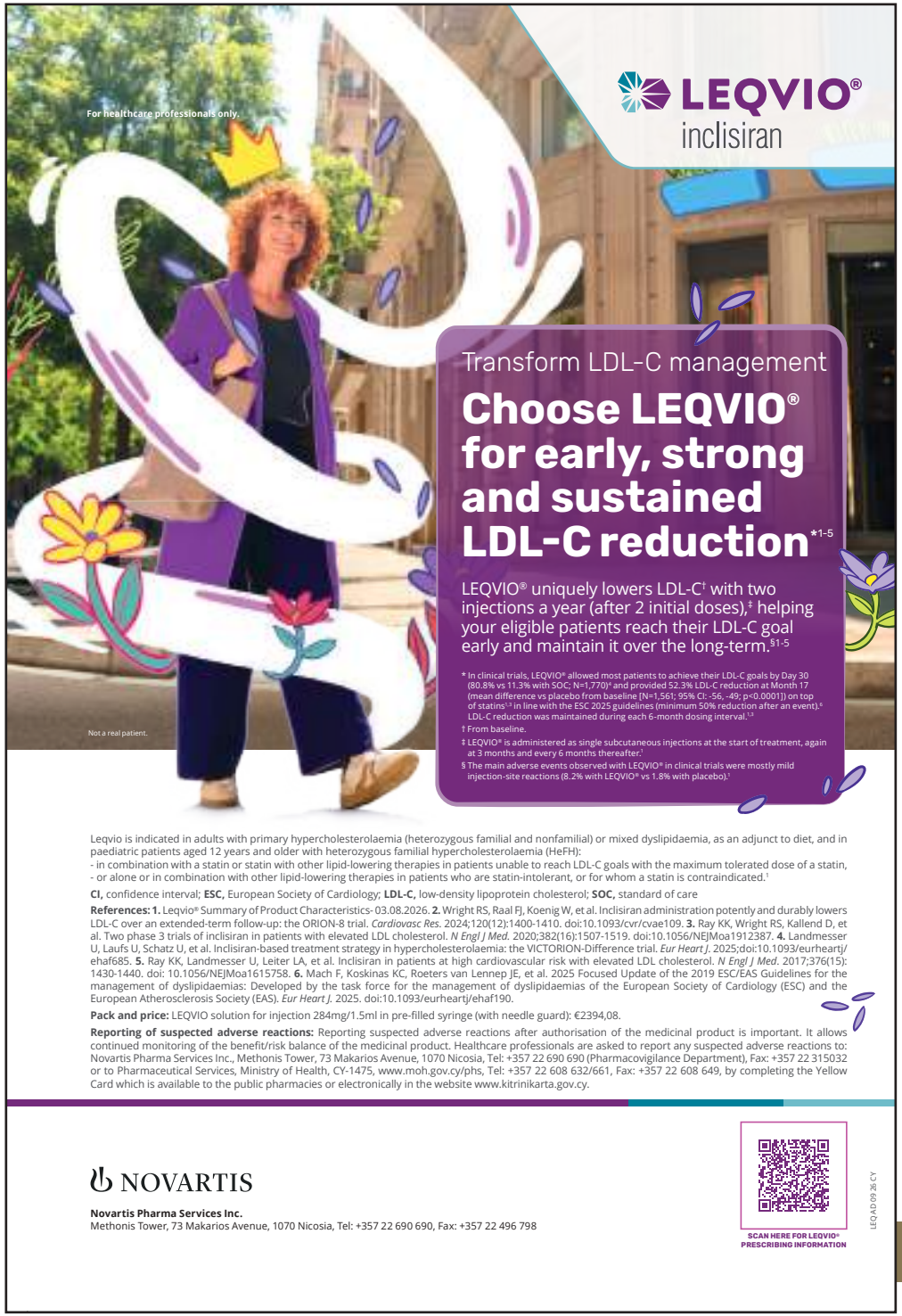
Speaker's CV



Dr. Timo Kehl

Head, Staff Unit Biological Safety and Research Security
German Cancer Research Center (DKFZ), Heidelberg, Germany

Since 2018, Timo Kehl has headed the Biological Safety and Research Security Unit at the German Cancer Research Center (DKFZ) in Heidelberg. In this role, he serves as the central interface between DKFZ's scientists, the Management Board, and German regulatory authorities, and represents the research center on all matters relating to biosafety and biosecurity. During the COVID-19 pandemic, from 2020 to 2023, Timo Kehl headed DKFZ's Corona Task Force, coordinating pandemic-related protective measures and ensuring the continuity of cancer research. He currently continues to coordinate DKFZ's crisis management. After studying biology at Heidelberg University, he earned his PhD at DKFZ in 2009, focusing on genomic alterations and carcinogenesis with an emphasis on pancreatic cancer. He subsequently headed the Pancreatic Cancer and Neuropathy laboratory at the Technical University of Munich and conducted postdoctoral research in tumor virology at DKFZ, before moving into biological safety in 2013, initially as Biosafety Officer. His expertise spans legal and regulatory frameworks, biorisk management, risk assessments, laboratory construction and design, safety protocols for high-containment laboratories, and the development of emergency response strategies. He combines scientific experience with hands-on management, ensuring close alignment between research and safety requirements in day-to-day laboratory operations. Timo Kehl chairs the Biosafety Working Group of the Helmholtz Association of German Research Centres and is a member of Subcommittees 2 and 4 of the Committee on Biological Agents (ABAS) at the Federal Ministry of Labour and Social Affairs (BMAS) in Germany. Together with colleagues, he coordinates the nationwide event series "Occupational Safety and Technical Expertise in BSL-3 Laboratories" and serves as a lecturer in various training courses on biosafety and biosecurity.



Leqvio is indicated in adults with primary hypercholesterolaemia (heterozygous familial and nonfamilial) or mixed dyslipidaemia, as an adjunct to diet, and in paediatric patients aged 12 years and older with heterozygous familial hypercholesterolaemia (HeFH):
- in combination with a statin or statin with other lipid-lowering therapies in patients unable to reach LDL-C goals with the maximum tolerated dose of a statin,
- or alone or in combination with other lipid-lowering therapies in patients who are statin-intolerant, or for whom a statin is contraindicated.[1]

CI, confidence interval; **ESC**, European Society of Cardiology; **LDL-C**, low-density lipoprotein cholesterol; **SOC**, standard of care

References: 1. Leqvio® Summary of Product Characteristics- 03.08.2026. **2.** Wright RS, Raal FJ, Koenig W, et al. Inclisiran administration potently and durably lowers LDL-C over an extended-term follow-up: the ORION-8 trial. *Cardiovasc Res.* 2024;120(12):1400-1410. doi:10.1093/cvr/cvae109. **3.** Ray KK, Wright RS, Kallend D, et al. Two phase 3 trials of inclisiran in patients with elevated LDL cholesterol. *N Engl J Med.* 2020;382(16):1507-1519. doi:10.1056/NEJMoa1912387. **4.** Landmesser U, Laufs U, Schatz U, et al. Inclisiran-based treatment strategy in hypercholesterolaemia: the VICTORION-Difference trial. *Eur Heart J.* 2025;doi:10.1093/eurheartj/ehaf685. **5.** Ray KK, Landmesser U, Leiter LA, et al. Inclisiran in patients at high cardiovascular risk with elevated LDL cholesterol. *N Engl J Med.* 2017;376(15):1430-1440. doi: 10.1056/NEJMoa1615758. **6.** Mach F, Koskinas KC, Roeters van Lennep JE, et al. 2025 Focused Update of the 2019 ESC/EAS Guidelines for the management of dyslipidaemias: Developed by the task force for the management of dyslipidaemias of the European Society of Cardiology (ESC) and the European Atherosclerosis Society (EAS). *Eur Heart J.* 2025. doi:10.1093/eurheartj/ehaf190.

Pack and price: LEQVIO solution for injection 284mg/1.5ml in pre-filled syringe (with needle guard): €2394,08.

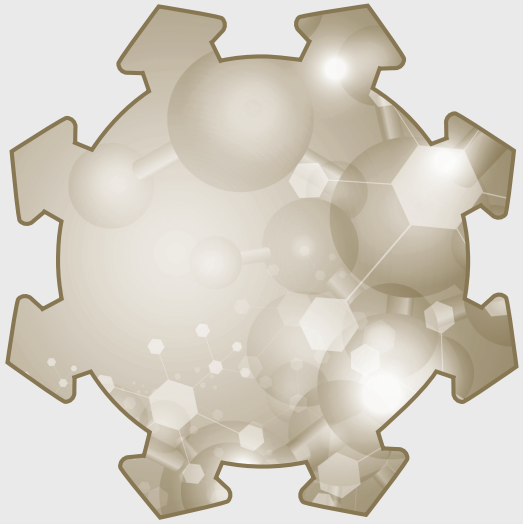
Reporting of suspected adverse reactions: Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions to: Novartis Pharma Services Inc., Methonis Tower, 73 Makarios Avenue, 1070 Nicosia, Tel: +357 22 690 690 (Pharmacovigilance Department), Fax: +357 22 315032 or to Pharmaceutical Services, Ministry of Health, CY-1475, www.moh.gov.cy/phs, Tel: +357 22 608 632/661, Fax: +357 22 608 649, by completing the Yellow Card which is available to the public pharmacies or electronically in the website www.kitrinikarta.gov.cy.

NOVARTIS

Novartis Pharma Services Inc.
Methonis Tower, 73 Makarios Avenue, 1070 Nicosia, Tel: +357 22 690 690, Fax: +357 22 496 798

SCAN HERE FOR LEQVIO® PRESCRIBING INFORMATION

LEQ AD 09.26 CY



Bio-medical Scientific Cyprus

Abstracts

- Invited Abstracts
- Selected Abstracts
- Poster Abstracts

Invited Abstracts

IA01 The bacterium as inventor: microbial biology as an innovation pipeline

Emmanuelle Charpentier[1,2]

[1]Max Planck Unit for the Science of Pathogens, 10117 Berlin, Germany; 2Institute for Biology, Humboldt University, 10115 Berlin, Germany

Over the past decade, research into the biology and applications of CRISPR-Cas systems has become one of the most dynamic and rapidly evolving fields in the life sciences, holding great promise for future biotechnological and biomedical developments.

CRISPR-Cas is originally an RNA-mediated immune system that has evolved extensively in bacteria and archaea into multiple distinct systems, and whose function is to protect these microorganisms from invasion by mobile genetic elements such as viruses (phages). Decoding the detailed mechanism of one of these systems — CRISPR-Cas9 — has led to the development of a transformative technology in the biological sciences, enabling rapid and efficient targeted genome editing and engineering, chromosome tagging, and gene regulation in a wide variety of cells and organisms. The RNA-programmable CRISPR-Cas9 tool is efficient, versatile, and easily programmable, and has been widely adopted by the scientific community. Having originated in the evolution of the microbial world, CRISPR technology now allows us to study the evolution of life across many other types of cells and organisms.

I will take you through the discovery of the CRISPR-Cas9 mechanism and its development into a revolutionary genome engineering technology, and discuss the biological roles, mechanisms, and evolution of CRISPR-Cas immune systems, as well as more recent aspects and developments of CRISPR-based genome engineering in the life sciences and medicine.

IA02 Accelerated lung ageing as a key mechanism of COPD

Peter J Barnes[1]

[1]National Heart & Lung Institute

COPD is a chronic progressive inflammatory lung disease that is now the third ranking global cause of death. Yet there are currently no treatments that target the underlying disease process; anti-inflammatory treatments have either been ineffective or have unacceptable side effects. There is growing evidence that COPD may be driven by accelerated lung ageing and the accumulation of senescent cells. Cigarette smoking and air pollution increase oxidative stress in the lung, which activates cell cycle arrest, or cellular senescence, with an increase in senescence markers p21CIP1 and p16INK4a. All cell types in COPD are senescent and secrete a pattern of inflammatory mediators known as the senescence-associated secretory phenotype (SASP), which closely mirrors the chronic inflammation found in COPD lungs. Acceleration of ageing is due to reduced endogenous anti-ageing molecules, such as sirtuins. There is a marked reduction in sirtuin-1 and sirtuin-6 in COPD lungs and cells. We have shown that this is due to activation of PI3-kinase-mTOR signalling and mediated by the microRNA-34a, which selectively reduces sirtuin-1/6. Small airway epithelial cells (SAEC), the key target cells in COPD, show increased senescence and reduced sirtuin-1/6, which are reversed by a miR-34a antagomir (blocker), suggesting that lung ageing may be reversible. We have recently shown that COPD SAEC release extracellular vesicles (EV) that transfer miR-34a to other cells to induce senescence. These EVs may transmit senescence to small airway fibroblasts, which could result in progressive fibrosis of small airways, the primary lesion of COPD. EVs may also spread senesce outside the lungs, resulting in the common comorbidities of COPD, which are also diseases of accelerated ageing, such as cardiovascular disease found in >80% of COPD patients. Thus, EVs may account for progression of COPD and for its comorbidities. Several treatments that target cellular senescence (serotherapies) are now in clinical development, including senomorphics, which prevent the development of cellular senescence and senolytics that remove senescent cells through the induction of apoptosis. Several senolytic drugs are now under investigation and have the potential to stop disease progression and comorbidities. Senolytics may need to be given only intermittently to clear senescent cells and may provide an entirely new approach to treating COPD in the future.

IA03 Sleep-disordered breathing in heart failure

John S. Floras[1]

[1]University Health Network and Sinai Health Division of Cardiology, University of Toronto, Canada

Sleep-disordered breathing (SDB), highly prevalent in patients with heart failure, presents either as predominantly obstructive sleep apnea (OSA) or central sleep apnea with Cheyne-Stokes Respiration (CSA-CSR). The latter generally signals lower cardiac output and higher filling pressure. These two modes differ with respect to predisposing clinical characteristics and apnea mechanisms, yet share a common pathophysiology, characterized by 30-90 second cycles of recurring apnea, intra-thoracic pressure swings, hypoxia, hypercapnia, sympathetic neural surges (detrimental to the afterload-sensitive left ventricle), and increased vagal tone, before terminated by arousal. OSA can convert from CSA-CSA over the course of the night, or over the passage of time, as ventricular systolic function deteriorates. Conversely, CSA-CSR can lessen or convert to OSA with heart-failure specific treatment. Relative to heart failure patients without, those with SDB manifest increased muscle sympathetic nerve activity (MSNA) during wakefulness, an adverse prognostic sign, consistent with upward resetting of the central set-point for sympathetic outflow--hypothesized to be induced by augmented peripheral chemoreceptor input. Because contemporary drug and device therapies have only modest impact on these perturbations, that abolition of sleep-disordered breathing can improve the prognosis of heart failure patients with this co-morbidity is an attractive hypothesis. OSA is abolished by both continuous positive airway pressure (CPAP) and by peak-flow adaptive servo-ventilation (PFASV), whereas only the latter eliminates CSA-CSA effectively. In a randomized controlled trial involving heart failure patients with OSA, 1 month of CPAP improved left ventricular ejection fraction (LVEF) and lowered MSNA, systolic blood pressure and heart rate, as measured immediately after awakening, and in a post-hoc analysis of the CANPAP trial, the subset whose CSA-CSA was attenuated by CPAP demonstrated greater transplant-free survival. However, in the 49 centre, 9 country COVID-19 interrupted ADVENT-HF trial, which pre-stratified patients into those with predominantly OSA (n=533) and predominantly CSA-CSA (n=198) before randomization, PFASV abolished both modes effectively and safely and improved sleep structure and quality of life, but had no impact on LVEF or hospitalizations for heart failure. There was no impact on mortality in the OSA cohort, but an encouraging trend (HR 0.74; 0.44-1.23; p=0.25) in the underpowered CSA-CSR cohort, that differed (P=0.05) from the hazard ratio in the SERVE-HF trial, which treated CSA-CSR with a distinctly different ASV algorithm. Thus, the present role of SDB treatment is similar to that in patients without heart failure—improvement in symptoms and quality of life.

IA04 Understanding clonal haematopoiesis for myeloid cancer prevention

George Vassiliou[1]

[1]Cambridge Stem Cell Institute, Jeffrey Cheah Biomedical Centre, Leukemic hemopoietic stem cells, University of Cambridge, UK

Every day, our bodies generate more than 200 billion mature blood cells from a relatively small pool of 50,000–200,000 haematopoietic stem cells (HSCs). Throughout life, these long-lived stem cells accumulate somatic mutations as a consequence of normal cellular processes. While the vast majority of these alterations are biologically inconsequential, a subset can provide individual HSCs with a competitive advantage, enabling them to expand and form genetically distinct clones. This age-associated process, termed clonal haematopoiesis (CH), is now recognised as a common feature of ageing and an important risk factor for haematological malignancies and a range of other diseases. Over recent years, our work has focused on defining the biological mechanisms that shape clonal evolution, determining how and why some clones progress to blood cancer, and developing strategies to intercept this process before malignancy emerges. In this talk, I will discuss our efforts to unravel the origins and consequences of CH, and explore how these insights could pave the way towards a future in which prevention of blood cancers becomes a clinical reality.

Invited Abstracts

IA05 Next-Generation Cancer Immunotherapy: from Mechanism to Medicine

Evanthia Galanis[1]

[1]*Mayo Clinic Comprehensive Cancer Center, Rochester, Minnesota, USA*

Cancer immunotherapy has transformed oncology by demonstrating that durable tumor control—and, in some patients, long-term remission—can be achieved by mobilizing the immune system against cancer. Immune checkpoint inhibitors, engineered cellular therapies, and other immune-based approaches have established new standards of care across multiple malignancies. Yet, for many patients, responses remain incomplete or transient, and major challenges persist, including primary and acquired resistance, immune-related toxicities, tumor heterogeneity, and the profoundly immunosuppressive tumor microenvironment.

To address these challenges, the next generation of cancer immunotherapies will need to be driven by a deeper mechanistic understanding of the dynamic interactions among tumor cells, immune populations, stromal components, and systemic host factors. Advances in single-cell and spatial profiling, functional genomics, systems immunology, and artificial intelligence are revealing previously inaccessible dimensions of tumor–immune biology and identifying mechanisms that determine therapeutic response or resistance. These insights are enabling the development of rational combination therapies, next-generation immune checkpoint strategies, engineered T-cell and NK-cell platforms, therapeutic vaccines, bispecific and multispecific immune engagers, and approaches designed to reprogram the tumor microenvironment.

This keynote lecture will explore the evolving landscape of cancer immunotherapy from mechanism to medicine, highlighting how fundamental discoveries in immune regulation are being translated into therapeutic strategies and how insights derived from clinical testing are, in turn, reshaping our understanding of cancer immunity and inform new discoveries, rational design of immunotherapy drugs and therapeutic advances. Ultimately, the goal is to move beyond broadly activating antitumor immunity toward increasingly individualized, mechanism-based interventions that overcome resistance, extend durable benefit to more patients with fewer side effects, and bring the promise of immune-mediated cancer control closer to reality.

IA06 From CRT to Conduction System Pacing: Redefining Cardiac Resynchronization in the Era of Precision Heart Failure Care

Cecilia Linde[1]

[1]*Karolinska University Hospital*

Cardiac resynchronization therapy (CRT) in indicated in 20% of patients with HFrEF and in sinus rhythm when patients remain symptomatic despite fundamental medical therapy (FMT) heart failure (HF) treatment and who have left bundle branch block (LBBB) /wide QRS duration. The main mechanism is that the biventricular stimulation partly amends the delay in LV contraction thereby initiating reverse LV remodeling with a maximal effect after one year of treatment. The clinical effects are impressive especially in view that CRT is given in addition to very effective FMT. These effects are improvement in NYHA class, 6- minute walk distance and quality of life and very importantly improved survival and reduced need for HF hospitalisations.

Precision medicine became a reality in CRT from early on because of the high cost of the device and what was considered a complicated implant procedure. Over nearly 30 years we have learnt a lot about which patient characteristics indicate greater benefit by CRT. This talk covers this subject and in addition, which patients need a combined CRT- ICD. The talk will also cover how conduction system pacing may compliment or replace conventional CRT in the future.

IA07 From Discovery of GLP-1 as a Satiety Hormone to GLP-1-Based Medications in the Clinical Management of Cardiometabolic Diseases and Cancer

Arne Astrup[1]

[1]*University of Copenhagen*

When I, together with Professor Jens Holst, identified GLP-1 as a physiological satiety hormone in 1996, it became evident that this gut-derived peptide exerted important effects on appetite regulation and food intake that extended beyond its presumed role in glucose metabolism. Our studies demonstrated that GLP-1 contributes to meal termination and body-weight regulation, providing a mechanistic link between gastrointestinal signaling and energy balance. These findings laid the scientific foundation for the development of GLP-1-based therapies for obesity and related metabolic disorders.

Importantly, our work also challenged the prevailing view of GLP-1 as a classical incretin hormone. We showed that many of its glucose-lowering effects could be explained by delayed gastric emptying, resulting in a slower delivery of nutrients to the circulation. Thus, GLP-1 does not simply function as an incretin stimulating insulin secretion; in several physiological contexts, inhibition of gastric emptying appears to be a dominant mechanism contributing to its metabolic effects.

The translational impact of these discoveries has been remarkable. GLP-1 receptor agonists and newer incretin-based therapies now produce unprecedented weight loss and significant improvements in glycaemic control, cardiovascular outcomes, and other manifestations of cardiometabolic disease. Emerging evidence further suggests potential benefits in reducing the burden of obesity-related cancers through effects on adiposity, insulin resistance, chronic inflammation, and associated metabolic pathways.

Despite these advances, important challenges remain. In routine clinical practice, approximately half of patients discontinue treatment within the first months, often because of gastrointestinal side effects, unmet expectations, cost, or difficulties integrating treatment into daily life. Long-term safety and tolerability also require continued surveillance as these therapies are increasingly used over decades and in younger populations. Notably, the clinical focus on pharmacotherapy has often overshadowed the importance of dietary counselling. Since GLP-1-based medications alter appetite, satiety, and gastrointestinal function, their effectiveness and tolerability may be improved when combined with structured nutritional guidance. Greater attention to diet quality, eating behaviour, and preservation of lean body mass may help reduce side effects, improve adherence, and maximize long-term health benefits.

The journey from the discovery of GLP-1 as a satiety hormone to the development of highly effective pharmacotherapies illustrates how fundamental physiological research can transform clinical practice. The next challenge is to integrate these powerful medications into comprehensive lifestyle-based treatment strategies that optimize both efficacy and long-term patient outcomes.

Invited Abstracts

IA08 Exercise and Sport in patients with hypertrophic cardiomyopathy

Antonio Pelliccia[1]

[1]School of Sport Medicine, University of Rome and L'Aquila.

Historically, individuals with hypertrophic cardiomyopathy (HCM) have been systematically excluded from vigorous exercise and competitive sports due to concerns about increased sudden cardiac death (SCD) risk. However, emerging evidence has challenged this paradigm. Observational studies and randomized trials demonstrate improvements in functional capacity, quality of life, and overall cardiovascular and psychological health with tailored exercise in HCM populations—including competitive sports in low-risk individuals—in the absence of safety risk. Low-risk individuals are defined by the lack of well-established adverse features such as a high European Society of Cardiology HCM SCD risk score, exercise- induced syncope, severe left ventricular outflow tract obstruction and ventricular arrhythmias The concept that this low- risk subset can safely engage in competitive sports is becoming widely accepted in the current guidelines, although local differences exist in terms of regulations and clinical approaches.

For individuals who do not meet low- risk criteria, evidence is more limited. Therefore, participation in competitive sports should be considered on an individual basis, after appropriate tailored risk stratification and, if needed, risk mitigation strategies (including treatment of obstruction and ICD implantation when indicated). A contemporary approach to HCM should be based on individual-ized, goal- oriented exercise prescription, supported by multidisciplinary counselling and shared decision- making, recognizing the importance of aligning medical recommendations with individual safety, values, goals, and quality of life.

IA09 From Weight Loss to Cardioprotection: Tirzepatide's Role in HF Treatment

Elias Tsougkos[1,2]

[1]6th Cardiology Department, Hygeia Hospital, Athens, Greece; 2School of Medicine, European University Cyprus

Obesity has emerged as a major driver of heart failure (HF), particularly heart failure with preserved ejection fraction (HFpEF), through a complex interplay of inflammation, insulin resistance, neurohormonal activation, haemodynamic stress and adverse cardiac remodelling. Consequently, effective treatment of obesity is increasingly recognized as an integral component of cardiovas-cular and HF management rather than simply a strategy for weight reduction.

Tirzepatide, a dual glucose-dependent insulinotropic polypeptide (GIP) and glucagon-like peptide-1 (GLP-1) receptor agonist, has demonstrated substantial and sustained reductions in body weight and improvements in multiple cardiometabolic risk factors. Emerging evidence suggests that its clinical benefits in patients with obesity and HF extend beyond weight loss, including improvements in symptoms, exercise capacity, quality of life, metabolic health and systemic inflammation.

In patients with HFpEF and obesity, the SUMMIT trial provided important evidence that tirzepatide can improve the clinical trajectory of the disease, with reductions in the risk of worsening heart failure events and meaningful improvements in health status. These findings support a paradigm shift in which obesity is increasingly viewed as a modifiable therapeutic target within the HF phenotype.

This presentation will explore the pathophysiological links between obesity, metabolic dysfunction and HF, and review the clinical evidence supporting tirzepatide in patients with HF and obesity. Particular attention will be given to whether the benefits observed with tirzepatide can be explained solely by weight loss or whether they reflect broader effects on inflammation, insulin resistance, haemodynamics, myocardial and vascular function, and cardiometabolic remodeling.

Finally, the presentation will discuss where tirzepatide may fit within contemporary HF treatment algorithms, how it complements established guideline-directed medical therapy, and what unanswered questions remain regarding long-term cardiovascular outcomes and the potential for disease modification.

The central question is no longer simply whether tirzepatide induces weight loss, but whether treating obesity can fundamentally change the trajectory of heart failure.

IA10 Artificial intelligence and digital technology in cardiovascular imaging

Constantinos H. Papadopoulos[1]

[1]Echocardiography Laboratory and the Heart Failure Clinic, Korgialenio-Benakio Hospital

The role of digital technology and artificial intelligence (AI) in cardiovascular imaging currently extends beyond the evident enhancement of image quality, primarily focusing on the automation of image acquisition and the quantification of measurements. Image interpretation, diagnosis, and the development of predictive models have garnered extensive research interest, with their integration into clinical practice constituting a primary objective in the near future. Furthermore, ease of accessibility to imaging studies, the dissemination of findings, and the specialized training of physicians in advanced imaging techniques have been significantly augmented in recent years through digital advancements. Contemporary digital technology and artificial intelligence are redefining the landscape of cardiovascular imaging by enhancing measurement reproducibility, improving diagnostic precision, and optimizing clinical workflows. By addressing inherent limitations pertaining to data quality, algorithmic transparency, regulatory validation, and ethical considerations, AI can be effectively and responsibly integrated into cardiovascular imaging, ultimately leading to the optimization of clinical decision-making and patient management.

Invited Abstracts

IA11 Cancer-Associated Arterial Thrombosis: A New Challenge in Oncology

Grigoris Gerotziafas[1,2]

[1]*Sorbonne University, Paris France*
[2]*Saint Antoine University Hospital AP-HP, Paris France*

Arterial thromboembolism is increasingly recognized as a serious vascular complication of cancer and its treatments, yet it remains far less studied than cancer-associated venous thromboembolism. The COMPASS-ARTeCAT research program addresses this gap through two complementary studies. The first, a prospective multicenter cohort, characterizes the incidence, clinical phenotype, and independent predictors of arterial thrombotic events in ambulatory patients with active cancer receiving contemporary systemic therapy. The second, COMPASS-ARTeCAT-ASA, examines whether standard aspirin-based secondary prevention provides comparable protection against recurrent arterial events and cardiovascular death in cancer patients as in those without cancer. Together, these studies span the full clinical trajectory of cancer-associated arterial thrombosis, from incident risk through secondary prevention, and raise the possibility that current antithrombotic strategies may be insufficient in this population. Their findings support the development of dedicated risk-stratification tools and prospective trials of tailored antithrombotic approaches in oncology practice.

IA12 Guideline Directed Medical Therapy in Patients with severe, advanced heart failure

Randall C Starling[1]

[1]*Heart, Vascular and Thoracic Institute, Cleveland Clinic, Cleveland Ohio USA*

This lecture will focus on the use of foundational medical therapy (FMT), also known as "guideline directed medical therapy" for the treatment of advanced heart failure. Whilst unquestionably the role of FMT is established based upon evidence, a minority of patients in most contemporary clinical trials had advanced, NYHA class IV heart failure (HF). The definition of advanced heart failure will be reviewed. The evidence supporting the use of FMT to reduce mortality and HF events and improve quality of life will be discussed.

References

Køber L, Adamo M, Ruwald AC, Tomasoni D, Anderson LJ, Andersson C, Brugts JJ, Chioncel O, Donal E, Ferdinandy P, Jhund PS, Leyva F, Lorusso R, Madigan M, Mullens W, Paolillo S, Ryan N, Simpson M, Thiele H, Thune JJ, Van Craenenbroeck EM, Van Laake LW, Verbakel M; ESC Guidelines Advisory Group. 2026 ESC Guidelines for the management of heart failure. Eur Heart J. 2026 Aug 28:ehag100. doi: 10.1093/eurheartj/ehag100. Epub ahead of print. PMID: 42661420.

Heidenreich PA, Bozkurt B, Aguilar D, Allen LA, Byun JJ, Colvin MM, Deswal A, Drazner MH, Dunlay SM, Evers LR, Fang JC, Fedson SE, Fonarow GC, Hayek SS, Hernandez AF, Khazanie P, Kittleson MM, Lee CS, Link MS, Milano CA, Nnacheta LC, Sandhu AT, Stevenson LW, Vardeny O, Vest AR, Yancy CW; ACC/AHA Joint Committee Members. 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. Circulation. 2022 May 3;145(18):e895-e1032. doi: 10.1161/CIR.0000000000001063. Epub 2022 Apr 1. Erratum in: Circulation. 2022 May 3;145(18):e1033. doi: 10.1161/CIR.0000000000001073. Erratum in: Circulation. 2022 Sep 27;146(13):e185. doi: 10.1161/CIR.0000000000001097. Erratum in: Circulation. 2023 Apr 4;147(14):e674. doi: 10.1161/CIR.0000000000001142. PMID: 35363499.

Cikes M, Brugts JJ, Claggett B, Jorde UP, Milicic D, Planinc I, Ruschitzka F, Uriel N, Kulac I, Jakus N, Loncaric F, Puskaric F, Sipus D, Gasparovic H, Rubis P, van Laake LW, Rudez I, Hegarova M, Sestan G, Wisniowska-Smialek S, Wierzbicki K, Mehra MR, Solomon SD. Angiotensin-Neprilysin Inhibition and Left Ventricular Assist Device Therapy: Primary Results of the ENVAD-HF Trial. JACC Heart Fail. 2025 Nov;13(11):102657. doi: 10.1016/j.jchf.2025.102657. Epub 2025 Aug 31. PMID: 40892548.

IA13 From Bench to Bedside: Translating Cancer Vaccine Research into the Clinic

Vasso Apostolopoulos[1]

[1]*RMIT University, Melbourne VIC Australia*

The field of vaccinology has undergone a remarkable transformation, evolving from traditional live-attenuated and inactivated vaccines to protein- and peptide-based formulations, whole-tumour vaccines, and, most recently, mRNA-based platforms. These innovations have not only revolutionised infectious disease prevention but are now driving a new era in cancer. Cancer vaccines represent one of the most promising frontiers, aiming to stimulate the immune system against markers expressed on cancer cells. This presentation will highlight the latest breakthroughs in cancer vaccines, personalised cancer vaccines and combination approaches to include immune checkpoint inhibitors and other immunomodulators. Finally, my personal expertise in cancer vaccine development in the last 30 years, from lab to clinical trials and what have been our learnings will be presented. Collectively, all these perspectives will illustrate how cancer vaccines are redefining immunotherapy and moving us closer to precision, durable, and widely applicable cancer treatments.

IA14 Bridging Kidney and Cardiac Health from Type 2 Diabetes to Type 1 Diabetes: Semaglutide as the New Pillar of Diabetic Kidney Disease Treatment

Peter Rossing[1]

[1]*teno Diabetes Center Copenhagen (SDCC) Herlev, University of Copenhagen, Denmark*

Type 2 diabetes is often leading to CVD or CKD, but recent years have provided impressive improvements in the management of type 2 diabetes, with development of organ protective medications lowering risk markers such as glucose, bodyweight, albuminuria and more importantly reducing kidney and cardiovascular events as well as mortality. Individuals with type 1 diabetes are also at high risk of cardiovascular disease (CVD) and chronic kidney disease (CKD) even with optimal glycaemic control. We have no approved drugs since ACE inhibitors were approved for CKD 30 years ago. Ongoing studies like FINE-ONE, SUGARNSALT, The Steno 1 study will test organ-protective medications including treatment with semaglutide, sotagliflozin and finerenone in high-risk individuals with type 1 diabetes. We hypothesize that this will reduce major adverse cardiovascular endpoints (MACE), hospitalization for heart failure (HHF), progression of CKD and mortality. The background and current state of these studies will be presented.

Invited Abstracts

IA15 Controversies in Heart Failure

Gerasimos Filippatos[1]

[1]*Heart Failure and Cardioncology Unit, Attikon University Hospital, Athens, Greece.*

Heart failure (HF) management continues to evolve, bringing new evidence but also new controversies into everyday clinical practice. These range from the way HF is classified according to left ventricular ejection fraction and the limitations of EF-based phenotyping, to how quickly and intensively guideline-directed medical therapy should be implemented and up-titrated. Other important questions concern the selection of patients for remote haemodynamic monitoring, the optimal timing of referral for advanced HF therapies and mechanical circulatory support, and the management of cardiogenic shock. At the same time, multimorbidity, polypharmacy and an expanding volume of recommendations make individualized decision-making increasingly important. This session will explore key controversies in contemporary HF care, highlighting areas where new evidence is changing the daily clinical practice.

IA16 The Status of Gene Therapy in Hereditary Cardiomyopathies: A Clinician's View

Filippos Triposkiadis[1,2]

[1]*Larissa University Hospital; School of Medicine, Larissa, Greece; 2School of Medicine, European University Cyprus, Cyprus*

Hereditary cardiomyopathies are monogenic disorders for which treatment remains largely symptomatic. Gene therapy targets the cause rather than the consequence, and the field has moved from preclinical proof of concept to early human trials. This lecture gives a clinician's appraisal of where matters stand. Most clinical programs use intravenous AAV9-based gene replacement. In MYBPC3-associated HCM, TN-201 is in a first-in-human, open-label study of safety, tolerability, and pharmacodynamics. Initial results show the treatment is safe and increases levels of a key heart protein, although the researchers caution that further research is needed. In Danon disease, RP-A501, an AAV9 vector carrying the LAMP2B transgene, is in a single-arm Phase 2 trial. The FDA accepted combined endpoints of LAMP2B expression and LV mass reduction for the pivotal trial. In PKP2-related arrhythmogenic cardiomyopathy, TN-401, RP-A601 and LX2020 are in Phase 1/2 evaluation. For DCM and other genes such as TTN and LMNA, gene size, dominant-negative mechanisms, and dosage sensitivity have kept most work preclinical. These obstacles are driving interest in genome editing, base editing, and RNA-based approaches. Unresolved issues matter at the bedside. They include pre-existing anti-AAV9 antibodies, immune-mediated toxicity at high systemic doses, uncertain durability, the risk of overexpression, reliance on surrogate endpoints, and cost. Long-term arrhythmic and clinical outcome data are lacking. Practical implications for clinicians include genotype-first evaluation, genetic counseling, awareness of AAV serostatus, referral to expert centers and trial enrollment, and realistic patient expectations. Gene therapy is not yet standard of care, but it is beginning to reshape the management of hereditary cardiomyopathies.

IA17 Novel Unified Approaches for the Management of Chronic Obstructive Pulmonary Disease (COPD) and Asthma

Argyris Tzouvelekis[1,2]

[1]*University Hospital Patra Greece;* [2]*Yale University USA*

The advent of biologic agents marks a historic shift in Chronic Obstructive Pulmonary Disease (COPD) management, moving the field from broad symptom control to biomarker-driven precision medicine. The global GOLD (Global Initiative for Chronic Obstructive Lung Disease) guidelines recommend adding a biologic for patients who continue to suffer from frequent flare-ups despite being on maximum inhaled "triple therapy" (LABA+LAMA+ICS), provided they have blood eosinophil counts ≥ 300 cells/μL. The current landscape features two primary FDA-approved biologics for this specific phenotype: 1) Dupilumab (Dupixent) is the first biologic agent FDA-approved (in September 2024) as an add-on maintenance treatment for adults with inadequate-control COPD and an eosinophilic phenotype [COPD-09-2024]. By blocking the IL-4Rα receptor, it disrupts interleukin-4 and interleukin-13 signaling, which are key drivers of Type 2 airway inflammation. In landmark clinical trials, it significantly reduced moderate-to-severe exacerbations by roughly 34% while demonstrating rapid and sustained improvements in lung function (FEV_1). 2) Mepolizumab which is an anti-interleukin-5 (IL-5) biologic agent approved as an add-on maintenance treatment for adults with inadequately controlled COPD and an eosinophilic phenotype. Backed by data from the landmark MATINEE and METREX trials, its monthly subcutaneous administration significantly reduces annualized moderate-to-severe flare-ups and decreases the overall burden of systemic corticosteroid therapy. The pipeline continues to expand. Clinical trials are aggressively exploring "alarmin" inhibitors—such as tozorakimab, which targets IL-33—aiming to help an even broader population of COPD patients, including those without traditional Type 2 eosinophilic markers. The first phase III RCT showed remarkable results. In the replicate Phase III OBERON and TITANIA trials, subcutaneous tozorakimab (300 mg every 4 weeks) reduced moderate-to-severe COPD exacerbations by 29% to 34% in former smokers and 29% to 30% in overall populations (including current smokers) compared to placebo on background inhaled therapy. [1] Finally, unlike dupilumab or mepolizumab, tozorakimab showed efficacy independent of eosinophil thresholds, achieving a 23% reduction in exacerbations even in patients with baseline BEC < 150 cells/μL.

There are 7 FDA-approved biologics grouped into 4 distinct classes based on their cellular targets for the treatment of severe asthma, encompassing 5-10% of total asthma population. Biologics are prescribed strictly as add-on maintenance therapies—they complement rather than replace daily baseline inhalers. In appropriately selected patients with severe asthma and their clinical impact has been so far profound, leading to:

1) Exacerbation Reduction: They consistently lower annualized asthma flare-up and emergency hospitalization rates by nearly 50%.

2) Steroid Tapering: Up to 92% of patients are able to significantly reduce or entirely eliminate their reliance on oral prednisone, sparing them from long-term steroid toxicity.

3) Lung Function & Quality of Life: Patients exhibit objective improvements in forced expiratory volume (FEV_1) and substantial drops in nighttime awakenings.

The next decade of COPD and asthma biotherapeutics is eagerly awaited with the hope of personalized medicine approaches.

IA18 Modern Approaches to Non-Melanoma Skin Cancer: Traditional and New Advances in Basal (BCC) and Squamous Cell Carcinoma (SCC) Treatment

Efterpi Zafeiriou[1]

[1]Dermatology Department University of Thessaly, University Hospital of Larissa, Greece

Non-melanoma skin cancer (NMSC), encompassing basal cell carcinoma (BCC) and cutaneous squamous cell carcinoma (cSCC), represents the most common malignancy worldwide, with an incidence that continues to rise due to population aging, cumulative ultraviolet exposure, and increasing numbers of immunocompromised individuals. Although the majority of NMSCs are successfully treated with conventional local therapies, a subset of patients develops locally advanced or metastatic disease, posing significant therapeutic challenges because of tumor extent, anatomical location, functional impairment, and cosmetic considerations.

Surgical excision remains the gold standard for localized BCC and cSCC, providing excellent long-term cure rates when complete tumor removal is achieved. Mohs micrographic surgery is particularly valuable for high-risk tumors located in anatomically critical areas, maximizing tissue preservation while minimizing recurrence. Radiotherapy, cryotherapy, curettage and electrodessication, photodynamic therapy, and topical agents continue to represent effective alternatives in carefully selected patients who are unsuitable for surgery or present with low-risk lesions. The optimal therapeutic strategy is determined by tumor size, histological subtype, depth of invasion, anatomical site, recurrence status, patient comorbidities, and expected functional and aesthetic outcomes.

The therapeutic landscape of advanced NMSC has changed dramatically with the introduction of molecular targeted therapies and immune checkpoint inhibitors. Aberrant activation of the Hedgehog signaling pathway, the principal molecular driver of most BCCs, has led to the development of Hedgehog pathway inhibitors, which have demonstrated durable responses in patients with locally advanced or metastatic BCC who are not candidates for curative surgery or radiotherapy. Likewise, the high mutational burden and immunogenicity of cSCC have established PD-1 inhibition as the standard systemic treatment for unresectable, recurrent, or metastatic disease, offering substantial and durable clinical benefit with an acceptable safety profile. More recently, immunotherapy has also emerged as an important therapeutic option for selected patients with advanced BCC following Hedgehog inhibitor failure or intolerance.

This presentation provides a comprehensive overview of contemporary management strategies for BCC and cSCC, integrating established therapeutic approaches with recent advances in targeted therapy and immunotherapy. Particular emphasis will be placed on multidisciplinary decision-making, individualized treatment selection, sequencing of systemic therapies, and future perspectives in precision oncology aimed at improving survival, preserving organ function, and optimizing patients' quality of life.

Invited Abstracts

IA19 Clinical and pathophysiological relevance of thyroid dysfunction to the development and progression of MASLD: The role of Resmetirom

Erifili Hatziagelaki,[1,2,3]

[1]National and Kapodistrian University, Athens (NKUA), Greece; 2European University Cyprus (EUC); 3German Diabetes Center (DDZ), Heinrich Heine University, Düsseldorf, Germany

MASLD is the most common chronic liver disease worldwide and is closely associated with systemic metabolic dysfunction and cardiometabolic risk factors. Its pathogenesis is multifactorial and may progress from hepatic steatosis and MASH to fibrosis, cirrhosis, and hepatocellular carcinoma. Thyroid hormones, particularly T3 and hepatic THR-β signaling, play an important role in regulating hepatic lipid and energy metabolism.

Impaired thyroid hormone signaling may contribute to hepatic fat accumulation, altered lipid metabolism, and the development of MASLD. This understanding has led to the development of resmetirom, a selective THR-β agonist that targets hepatic metabolic dysfunction. By activating THR-β, resmetirom promotes fatty acid oxidation, reduces lipogenesis and hepatic steatosis, and improves histological features of MASH and fibrosis, while also lowering LDL cholesterol.

Although resmetirom represents an important therapeutic advance, lifestyle modification remains a fundamental component of management. Future treatment strategies will likely involve individualized and multimodal approaches, potentially combining different mechanisms such as GLP-1 receptor agonism, FGF21 analogues, and PPAR agonism.

Overall, targeting hepatic thyroid hormone signaling represents a promising approach to treating the metabolic and histological components of MASLD/MASH.

IA20 Integrating culturomics, multi-omics, and AI-based approaches on the oral and gut microbiomes for the discovery of potential novel probiotics and bioactives.

Karsten Kristiansen[1,2,3]

[1]Laboratory of Integrative Biomedicine, Department of Biology, University of Copenhagen; [2]BGI-Research, Shenzhen, China; [3]Qingdao-Europe Advanced Institute for Life Sciences, Qingdao, China

Most currently used probiotics comprises members of only two genera, Lactobacillus and Bifidobacterium. Research during the last decade has convincingly demonstrated the association between several oral and gut bacterial species and health, suggesting that the oral and gut microbiomes constitute an almost untapped resource for the discovery of next generation probiotics and bioactives. Large-scale endeavors to isolate, cultivate, and characterize bacteria from the oral cavity and the intestine have led to the establishment of the "Cultivated Oral Bacteria Genome Reference" (COGR) and the "Cultivated Genome Reference" (CGR2) comprising in total 4413 high-quality bacterial genomes. Integrating these cultivated references with multi-omics data from human studies and AI-based approaches has enabled the identification of potential novel probiotics and bioactives, the latter comprising novel enzymes, antimicrobial peptides, and novel peptide candidates with a potential for curbing metabolic disorders. In this lecture, I will summarize recent discoveries focusing on potential novel probiotics and bioactives targeting metabolic disorders, and finally discuss the use and pitfalls associated with the use of mouse models for establishing causality describing potential means to circumvent some of these obstacles and discuss the use of alternative animal models.

IA21 Ethical Dilemmas and End of Life Decisions in the ICU: A Critical Challenge for Modern Medicine

Ioannis Pnevmatikos[1]

[1]*University of Cyprus, Cyprus*

Death in the intensive care unit (ICU) usually occurs after treatment limitation decisions warranted by patient preferences or non-beneficial treatments. The treatment plan shifts from a curative intent to end-of-life (EoL) and palliative care aimed at alleviating symptoms while also meeting the emotional, psychological, and spiritual needs of both the patient and the family. In the ICU, deciding to move from curative to EoL care is particularly challenging, because it involves withdrawing or withholding life-supporting treatments (LSTs). EoL care practices are shaped by ethical principles, legal frameworks, cultural norms, and available resources and therefore vary substantially across countries and healthcare systems. Clinical teams share LST-limitation decisions with patients and families in some countries and make them alone in others. Some approaches emphasize patient autonomy and others a best-interest model. No single approach is optimal for all patients, and clinical judgment is therefore needed to tailor EoL care decisions.

One objective of EoL care in the ICU is to support patients and families throughout the LST-limitation process in a way that fosters empathy and understanding, builds trust via effective communication, and provides support in initial stages of grieving. Timely shifting to EoL care as early as is warranted improves the experience of patients and families, who should receive continuous emotional support and frequent opportunities to voice their wishes and concerns. Interdisciplinary coordination helps to provide holistic care. Finally, conflicts should be managed sensitively with special attention for and the well-being of the clinical team.

The recent ESICM guidelines about EoL and palliative care for critically ill adults published in 2024 are expected to improve the quality of death and mortality, minimize the negative impact of the experience on families, support the well-being of healthcare professionals (HCPs), and serve as a resource for hospital administrators and healthcare policymakers.

IA22 Development of novel angiotensin II receptor ligands for neuroprotection, neurorepair and tumour suppression

Patrick N. Pallier[1], Aryana Issa[1], Murugan Chinnarasu[3], Christina Bika[3], Marianna Spanos[2], Zara Haider[1], Gabriel Wood[1], Thalia Farrelly[1], Finley Cracknell[1], Naeima Ahmed[1], Muntaha Adeel[1], Yassine Ben Khalifa[2], Chadi Ben Khalifa[2], Adina T. Michael-Titus[1], and Andreas Tzakos[3]

[1]Centre for Neuroscience, Surgery and Trauma, The Blizard Institute, Barts and The London School of Medicine and Dentistry, Queen Mary University of London, 4 Newark Street, London E1 2AT, UK;[2]School of Medicine, European University Cyprus, Diogenous 6, Egkomi 2404, Nicosia, Cyprus;[3]Department of Chemistry, University of Ioannina, Ioannina 45110, Greece

Presenter Contact Details: Dr Patrick N. Pallier

Email ID: p.pallier@qmul.ac.uk

There is currently a significant unmet need for neuroprotective, pro-regenerative, and anti-tumour treatments, and evidence suggests that receptors for the angiotensin II (AII) peptide have therapeutic potential. The activation of the AII type 1 receptor (AT1R) is seen in various neurological and psychiatric disorders and cancer and is considered harmful. Selective activation of the type 2 receptor (AT2R), by contrast, has been proposed as a novel drug target in the treatment of brain ischemia and neurotrauma1,2 through increased axonal plasticity3 and neuroprotective and anti-apoptotic mechanisms1,4.

More recently, it was found that AII was also endogenously produced in glioblastoma, promoting cell proliferation through the AT2R5. Glioblastoma is an aggressive primary malignant brain tumour with limited therapeutic options and poor prognosis. This suggests that an AT2R ligand with a very high selectivity for AT2R over AT1R may have high therapeutic potential in both neurotrauma and glioblastoma.

We tested twelve novel AT2R small-molecule analogues with high AT2R selectivity for their potential for neuroregeneration or tumour suppression on mouse embryonic cortical cells (at E15) or in the tumour-derived (neuroblastoma x glioma hybrid) NG 108-15 immortalised cell line grown in proliferative conditions, respectively. These compounds were tested at 1, 5, and 10 nM in cells cultured in 96-well plates, against the peptide analogue [Y]6-AII6, whose pro-regenerative properties have already been demonstrated in our laboratory (unpublished data). The compounds were applied 24 h after plating and refreshed daily; the cells were fixed 48 h (cortical cells) or 72 hours (NG108-15 cells) after the start of treatment. The rationale for designing the compounds and their molecular structure are not currently disclosed.

Compared to control wells treated with equivalent amounts of DMSO, the compound solvent, one of the novel compounds, MO-5, showed similar to better efficacy for neurite outgrowth as [Y]6-AII at 10 nM (number of neurites per cell, +29.7%, MO-5, $P < 0.001$ vs +27.0%, $P < 0.01$, [Y]6-AII; neurite length, +71.7%, MO-5 vs +72.9%, [Y]6-AII, $P < 0.01$ for both; neurite maximum length, +47.0%, MO-5 vs +50.5%, [Y]6-AII, $P < 0.01$ for both). Both compounds increased the mean number of branch points by a similar range (+26.2%, MO-5 vs +21.4%, [Y]6-AII), but the increase was significant, compared to the control wells, only in cells treated with MO-5.

Treatment with [Y]6-AII did not affect any NG108-15 cell parameter, while five out of the twelve novel compounds were identified as anti-proliferative and/or cytotoxic at all three tested doses. Compared with cells treated with DMSO, and across all doses, the most efficacious compound, MV-2, led to a mean decrease of 57.5% in the number of cells, a 35.4% decrease in the number of cells with neurites, and a 36.6% decrease in neurite length.

We confirm the potential of AT2R analogues for neurorepair, and the most efficacious novel small molecule we have identified, MO-5, showed equal potency to one of our lead pro-regenerative peptides, [Y]6-AII. We also identified a novel anti-proliferative and/or cytotoxic compound, MV-2, with great promise for suppression of brain tumour growth. As orally available and BBB-penetrant drugs, small molecules are excellent candidates for clinical translation. Our next step is to test these novel compounds for neuroprotection and in glioblastoma cell models. Since they are tagged with a fluorophore, we will be able to follow the cellular fate of these compounds in the presence or absence of AT2R antagonism.

References

1. Umschweif, G et al. (2014) Neuroprotection after traumatic brain injury in heat-acclimated mice involves induced neurogenesis and activation of angiotensin receptor type 2 signaling. J. Cereb. Blood Flow Metab. 34(8):1381-90.1.

2. Namsolleck P et al. (2013) AT2-receptor stimulation enhances axonal plasticity after spinal cord injury by upregulating BDNF expression. Neurobiol. Dis. 51:177-191.

3. Reinecke K et al. (2003) Angiotensin II accelerates functional recovery in the rat sciatic nerve in vivo: role of the AT2 receptor and the transcription factor NF-kappaB. FASEB J. 17:2094-209.

4. McCarthy CA et al. (2009) Angiotensin AT2 receptor stimulation causes neuroprotection in a conscious rat model of stroke. Stroke 40:1482-1489.

5. Perryman, R et al. (2022) Inhibition of the angiotensin II type 2 receptor AT2R is a novel therapeutic strategy for glioblastoma. Proc. Natl. Acad. Sci. U S A 119(32):e2116289119.

6. Magnani, F.et al. (2014). Electronic Sculpting of Ligand-GPCR Subtype Selectivity: The Case of Angiotensin II. ACS Chemical Biology. 9(7):1420–1425.

Invited Abstracts

IA23 Hybrid Aortic Arch Replacement with Frozen Elephant Trunk (FET) Technique: Surgical Considerations, Pearls, and Pitfalls

Ioannis Tzanavaros[1,2]

[1]Cardiac Innovation Center Apolloneio Private Hospital, Nicosia Cyprus; 2University of Nicosia Medical School

Complex aortic arch pathologies, including acute and chronic aortic dissections and extensive thoracic aortic aneurysms, continue to represent major challenges in modern cardiovascular surgery curing a substantial operative risk for mortality and major complications. The Frozen Elephant Trunk (FET) technique has emerged as an effective surgical strategy, combining conventional open aortic arch replacement with endovascular reconstruction of the proximal descending thoracic aorta in a single procedure. This hybrid approach enables comprehensive treatment of complex aortic disease while facilitating potential future endovascular interventions. Successful implementation requires meticulous preoperative planning, detailed assessment of aortic anatomy, appropriate patient selection, and an individualized operative strategy. Particular attention must be directed toward arterial cannulation, cerebral protection using selective antegrade cerebral perfusion, temperature management, accurate stent-graft sizing and positioning, and careful reconstruction of the supra-aortic vessels. Technical refinements, including proximalization of the distal aortic anastomosis to zone 0, 1 or 2 and early restoration of distal systemic perfusion, may simplify the procedure and reduce operative complexity. Nevertheless, the FET technique remains associated with significant potential complications, including stroke, spinal cord ischemia, bleeding, visceral malperfusion, distal stent-graft-induced new entry tears, and the need for secondary aortic interventions. Several technical considerations are essential for minimizing these risks, particularly avoidance of excessive stent-graft oversizing, limitation of unnecessary distal aortic coverage, preservation of spinal cord collateral circulation, meticulous hemostasis, and optimization of cerebral and systemic perfusion. The selection of an appropriate operative strategy should account for the underlying aortic pathology, patient characteristics, and anticipated long-term aortic remodeling. The FET technique represents a major advancement in contemporary aortic surgery, offering an integrated solution for complex arch and descending thoracic aortic disease. A thorough understanding of surgical principles, technical pearls, and potential pitfalls, combined with experience in complex aortic reconstruction and multidisciplinary perioperative management, is fundamental to improving procedural safety, reducing complications, and achieving durable clinical outcomes.

IA24 Redefining HDL in Residual Cardiovascular Risk: A Nuanced Paradigm Shift in APOA2 and ASCVD Risk Stratification

Kyriakos E. Kypreos[1]

[1]Pharmacology Laboratory Department of Medicine, University of Patras, Rio Achaias, Greece

The classical understanding of High-Density Lipoprotein (HDL) as a uniformly protective factor against Atherosclerotic Cardiovascular Disease (ASCVD) is undergoing a significant paradigm shift. While historical data, notably from the Framingham Heart Study, established a strong inverse correlation between low HDL-cholesterol (HDL-C) levels and coronary heart disease risk, contemporary evidence suggests a more complex U-shape relation. Despite this complexity the medical community often times disregards HDL in atherosclectic risk stratification. However, more recent data from the Framingham Offspring study indicate that HDL is as important as small dense LDL in clinical atherosclerosis development. Recent research emphasizes that HDL is not merely a static cholesterol carrier but a heterogeneous mixture of particles with distinct apoprotein compositions, densities, and functional capacities. A critical component of this re-evaluation is the role of Apolipoprotein A-II (APOA2), the second most abundant protein in HDL. As a component of HDL, APOA2 was customarily considered an antiatherogenic factor. However, our recent findings indicate that APOA2 functions as a context-dependent, proatherogenic factor. Experimental preclinical and clinical data demonstrate that APOA2 expression correlates with the formation of small-dense APOB particles—a highly atherogenic lipoprotein parameter. By influencing lipoprotein metabolism and promoting proatherogenic mechanisms, APOA2 challenges the traditional view that all HDL-associated proteins are inherently protective. These findings suggest that therapeutic strategies for patients with low or high HDL-C should move beyond simple numerical targets and account for the quality and functional state of HDL particles. In conclusion, this nuanced approach integrates the structural and functional heterogeneity of HDL with the proatherogenic potential of specific components like APOA2. This evolving framework underscores the necessity of a paradigm shift in clinical risk assessment, moving toward a more sophisticated, context-dependent understanding of lipoprotein functionality to more effectively address residual cardiovascular risk.

IA25 Diagnostic Electrophysiology study: how far should we go?

Charalampos Kriatseli[1,2]

[1]Vivantes Klinikum Neukölln, Berlin, Germany; 2Aretaeion Hospital, Nicosia, Cyprus

A 56 year old patient with recurrent paroxysmal tachycardias was referred for an electrophysiological study and ablation treatment. During a tachycardia episode two different 12 lead ECGs were recorded: the first ECG showed a regular tachycardia at 183 bpm and left bundle branch block, while a second ECG some minutes later showed a regular tachycardia at 202 bpm and right bundle branch block. During the ep study no tachycardia could be induced and no evidence for the presence of an accessory pathway or other electrical abnormality was provided during the standard stimulation manoeuvres. The tachycardia mechanism was clarified only after an extended diagnostic protocol was used and the arrythmogenic substrate could be successfully treated by radiofrequency ablation.

Invited Abstracts

IA26Minimal Residual Disease–Guided Treatment in Chronic Lymphocytic Leukemia
Running title: MRD-guided treatment in CLL

J. Zuluaga[1], E. Nikolousis[2,3]

[1]American Hospital Dubai, Dubai, United Arab Emirates; [2] Abu Dhabi Stem Cell Center, Abu Dhabi, United Arab Emirates; [3] European University of Cyprus Medical School, Nicosia, Cyprus Corresponding author: Dr E. Nikolousis; Abu Dhabi Stem Cell Center, Abu Dhabi, United Arab Emirates. E-mail: Emmanouil.nikolousis@adscc.ae

Measurable residual disease in chronic lymphocytic leukemia is defined as the persistence of disease below the threshold of detection by conventional morphology, specifically fewer than one CLL cell per 10,000 leukocytes. Treatment paradigm has shifted from chemoimmunotherapy toward time-limited targeted regimens based on venetoclax and Bruton tyrosine kinase inhibitors, MRD assessment has evolved from a prognostic biomarker into a potential tool for personalizing treatment duration. Standardized detection by multiparameter flow cytometry, allele-specific polymerase chain reaction, and next-generation sequencing at sensitivities of 10^{-4} to 10^{-6} now permits quantification of deep responses in peripheral blood and bone marrow. Evidence from randomized and phase 2 trials — including FLAIR, GLOW, CAPTIVATE, and VISION/HOVON141 — demonstrates that undetectable MRD at the end of treatment is strongly associated with prolonged progression-free survival, and that MRD-guided treatment cessation, with reinitiation upon molecular recurrence, is feasible. However, assay harmonization and threshold standardization are incomplete, peripheral blood and bone marrow assessments are not always concordant, and MRD has not shown equivalent prognostic value in patients receiving continuous covalent BTKi monotherapy. This review summarizes the methodology of MRD assessment, the evidence linking MRD to long-term outcomes, and the emerging role of MRD in guiding treatment duration.

IA27 Amyloidosis Without Borders: Lessons for Haematologists, Cardiologists and Beyond

Emmanuel Nikolousis[1,2]

[1]Bone Marrow Transplantation Yas Clinic. Abu Dhabi; 2European University of Cyprus Medical School, Nicosia, Cyprus

Amyloidosis constitutes a heterogeneous group of disorders characterized by extracellular deposition of misfolded proteins known as amyloid fibrils, leading to progressive organ dysfunction. Two clinically significant systemic forms are AL (light-chain) amyloidosis and AA (serum amyloid A) amyloidosis. AL amyloidosis is primarily a plasma cell disorder resulting in the overproduction of monoclonal immunoglobulin light chains, which aggregate and deposit in organs such as the heart, kidneys, liver, gastrointestinal tract, and peripheral nerves. Clinical manifestations include nephrotic syndrome, restrictive cardiomyopathy, arrhythmias, neuropathy, and macroglossia. Management focuses on suppression of clonal plasma cells using chemotherapy regimens, autologous stem cell transplant, and monoclonal antibodies targeting CD38, with early recognition being critical to prevent irreversible organ damage.

In contrast, AA amyloidosis arises secondary to chronic inflammatory states, infections, or autoinflammatory diseases, with serum amyloid A (SAA) protein serving as the precursor. The kidneys are predominantly affected, leading to proteinuria, nephrotic syndrome, and progressive renal failure; other organs including liver, spleen, and gastrointestinal tract may also be involved. Diagnosis relies on tissue biopsy with Congo red staining and immunochemical typing to distinguish from other amyloidoses. Therapeutic strategies center on controlling the underlying inflammatory condition, use of biologic agents to reduce SAA levels, and supportive care for affected organs. Emerging therapies are under investigation to promote clearance of amyloid deposits and improve long-term outcomes. Given the divergent pathogenesis, clinical phenotypes, and treatment approaches, a precise diagnosis distinguishing AL from AA amyloidosis is essential to guide management and prognostication. This session will provide a succinct comparative perspective, emphasizing contemporary diagnostic modalities, organ-specific complications, and evolving therapeutic paradigms.

IA26 Guiding Treatment Decisions in Cardiac Amyloidosis: Evidence-Based Approaches and Emerging Therapies

Andreas Synetos[1,2]

[1]First Department of Cardiology at the Medical School of Athens, Greece; 2School of Medicine, European University Cyprus

Cardiac amyloidosis is now recognized more frequently in everyday cardiology practice, particularly in patients with heart failure, increased left ventricular wall thickness, aortic stenosis or otherwise unexplained conduction abnormalities. Transthyretin amyloid cardiomyopathy (ATTR-CM) and light-chain (AL) amyloidosis account for most cases of clinically relevant cardiac amyloidosis. Distinguishing between them early is essential, since their treatment and clinical course are markedly different.

The diagnostic approach has become simpler and, in many patients, no longer requires endomyocardial biopsy. In the appropriate clinical setting, bone-tracer scintigraphy can establish a diagnosis of ATTR-CM when a monoclonal protein has been reliably excluded. Echocardiography and cardiac magnetic resonance remain important for defining the cardiac phenotype and extent of involvement, while biomarkers are useful for staging and follow-up. Once ATTR-CM is diagnosed, genetic testing is necessary to distinguish wild-type from variant disease.

Treatment should be guided by amyloid type, disease stage, symptoms, comorbidities and the likelihood of meaningful clinical benefit. Tafamidis established transthyretin stabilization as an effective treatment for ATTR-CM, reducing mortality and cardiovascular hospitalizations. Acoramidis provides another approach to TTR stabilization, while therapies that reduce hepatic TTR production have produced encouraging clinical results and are increasingly entering the management of patients with cardiac involvement. In AL amyloidosis, treatment remains directed toward rapid and sustained suppression of the plasma-cell clone, with daratumumab-based regimens now playing a central role.

Supportive cardiac treatment is equally important but often requires a different approach from conventional heart failure management. Diuretics remain the mainstay for congestion, whereas vasodilators and standard neurohormonal therapies are frequently limited by hypotension and poor tolerance. Atrial fibrillation, thromboembolic risk and conduction disturbances also require particular attention.

The field is evolving rapidly. Beyond TTR stabilization, RNA-silencing therapies can markedly reduce circulating transthyretin, while gene-editing approaches may eventually offer sustained suppression after a single treatment. At the same time, therapies aimed at removing existing amyloid deposits are under investigation. With these options emerging, treatment decisions in cardiac amyloidosis are becoming increasingly individualized, making early diagnosis and appropriate selection of therapy more important than ever.

Invited Abstracts

IA27 Targeting the Sarcomere: Do Myosin Inhibitors End the Need for Septal Myectomy?

Andreas Synetos[1,2]

[1]First Department of Cardiology at the Medical School of Athens, Greece; 2School of Medicine, European University Cyprus

Hypertrophic obstructive cardiomyopathy (HOCM) is characterized by dynamic left ventricular outflow tract (LVOT) obstruction, usually related to asymmetric septal hypertrophy, systolic anterior motion of the mitral valve and increased myocardial contractility. In symptomatic patients, beta-blockers, non-dihydropyridine calcium-channel blockers and disopyramide have traditionally been used as initial treatment. When symptoms and significant LVOT obstruction persist despite medical therapy, septal reduction has been the next therapeutic option. Surgical septal myectomy remains the reference treatment, particularly in experienced HCM centers, providing effective and durable relief of LVOT obstruction. It also allows correction of associated mitral or subvalvular abnormalities when present. Alcohol septal ablation (ASA) offers a less invasive alternative, mainly in older patients or in those with increased surgical risk. However, ASA depends on suitable septal coronary anatomy and reduces obstruction by producing a controlled septal infarction. The extent of myocardial injury and subsequent remodeling is not always predictable, while atrio-ventricular block requiring permanent pacing, residual obstruction and the presence of a myocardial scar remain relevant concerns.

The introduction of cardiac myosin inhibitors has changed the management of obstructive HCM. Mavacamten and aficamten act directly on the sarcomere, reducing excessive actin–myosin interaction and the hypercontractile state that contributes to LVOT obstruction. Clinical studies have shown significant reductions in resting and provoked LVOT gradients, together with improvements in symptoms, exercise capacity and quality of life. Importantly, treatment with myosin inhibitors may reduce the number of patients who ultimately require septal reduction therapy. This approach has particular advantages over ASA. Rather than creating irreversible myocardial damage, myosin inhibition is pharmacological, titratable and reversible and acts on an important mechanism underlying the disease. Nevertheless, the need for long-term treatment, monitoring of left ventricular systolic function, cost and long-term safety should be considered. Myectomy is therefore unlikely to disappear, especially in younger patients with marked septal hypertrophy or complex LVOT and mitral anatomy. The future of ASA is less certain. As experience with myosin inhibitors increases, their ability to provide effective relief of obstruction without creating myocardial scar may substantially reduce the role of alcohol septal ablation in contemporary HOCM management.

IA28 Four Coronary Events Despite Intensive LDL Cholesterol Lowering: The Double Hit of Familial Hypercholesterolaemia and Elevated Lipoprotein(a)

Angeliki Mouzarou[1]

[1]Cardiology Department Paphos General Hospital, Paphos, Cyprus

Background: Lipoprotein(a) is an inherited, independent risk factor for atherosclerotic cardiovascular disease, unaffected by statins. Combined with familial hypercholesterolaemia, it markedly amplifies risk, which may persist despite reaching LDL cholesterol targets.

Case presentation: A 46-year-old hypertensive former smoker presented in 2021 with an anterior ST-elevation myocardial infarction and received a drug-eluting stent in the proximal left anterior descending artery. Untreated LDL cholesterol was 182 mg/dL and lipoprotein(a) 228 nmol/L; his father had a myocardial infarction at 49. In 2022, a non-ST-elevation myocardial infarction on atorvastatin 80 mg (LDL cholesterol 98 mg/dL) required stenting of a new right coronary artery lesion; rosuvastatin 40 mg with ezetimibe 10 mg was started. In 2024, unstable angina (LDL cholesterol 72 mg/dL) revealed in-stent neoatherosclerosis of the original stent on optical coherence tomography and a new circumflex lesion, which was stented; evolocumab was added. Genetic testing confirmed heterozygous familial hypercholesterolaemia. In 2026, despite LDL cholesterol of 38 mg/dL, a fourth event from a new diagonal lesion required further stenting. Lipoprotein(a) remained 172 nmol/L, with persistent low-grade inflammation. Residual-risk management includes colchicine, evaluation for lipoprotein apheresis, long-term antithrombotic intensification, a GLP-1 receptor agonist and family screening.

Conclusions: Lipoprotein(a) should be measured at the first coronary event, and very-high-risk patients require combination lipid-lowering therapy from the outset. Achieving LDL cholesterol targets does not eliminate lipoprotein(a)-related risk. After the negative pelacarsen outcome trial, controlling all modifiable risk factors remains essential.

Invited Abstracts

IA29 DIGITAL TWINS & AI MAPPING: The Future of Non-Invasive Tissue Biopsy

Aikaterini Christidi[1]

[1]Cardiovascular Magnetic Resonance Department, General Clinic of Thessaloniki, Greece

Cardiovascular imaging has evolved significantly during the last decades, moving from predominantly anatomical assessment toward advanced tissue characterization and quantitative phenotyping. Modern imaging techniques can now provide detailed information on myocardial structure, tissue composition, function and disease patterns without the need for invasive biopsy. However, the increasing complexity and volume of imaging and clinical data also create new challenges for interpretation and integration.

Artificial intelligence (AI) is emerging as a powerful tool for extracting clinically meaningful information from multimodal cardiovascular data. Automated image analysis, quantitative mapping, radiomics and AI-assisted phenotyping may reveal subtle patterns of disease that are difficult to recognize through conventional visual assessment. The combination of imaging with electrocardiographic, clinical, laboratory and genetic information may further enhance our ability to characterize cardiovascular disease at an individual level.

The next frontier may be the development of patient-specific digital twins: dynamic computational representations that integrate multimodal data to reflect the structure, function and biological characteristics of an individual patient. Such models could potentially evolve over time, allowing disease progression and treatment response to be monitored and, in the future, different therapeutic strategies to be explored.

What patients can expect from this new paradigm is earlier and more precise disease detection, improved phenotyping and risk stratification, and increasingly personalized therapeutic decisions.

The convergence of advanced cardiovascular imaging, AI and digital twins may therefore transform the concept of non-invasive tissue biopsy—from acquiring individual imaging biomarkers to creating an integrated, quantitative and dynamic representation of the patient's cardiovascular phenotype.

IA30 Anti-Obesity Medications: Current Options and Future Developments

Stavroula A. Paschou[1]

[1]Endocrine Unit and Diabetes Center, Department of Clinical Therapeutics, Alexandra Hospital, School of Medicine, National and Kapodistrian University of Athens, Athens, Greece

Obesity is a chronic, relapsing, multifactorial disease and one of the leading global health challenges, substantially increasing the risk of type 2 diabetes, metabolic dysfunction-associated steatotic liver disease, obstructive sleep apnea, cardiovascular disease, several malignancies, and premature mortality. Advances in the understanding of the neurobiology of appetite regulation and energy homeostasis have transformed obesity management, establishing pharmacotherapy as a fundamental component of long-term treatment alongside lifestyle intervention and, when appropriate, metabolic bariatric surgery.

This lecture will provide a comprehensive overview of current and emerging pharmacological therapies for obesity. Available oral medications, including orlistat and the naltrexone/bupropion combination, continue to have a role in carefully selected patients, although their efficacy is modest compared with newer agents. Liraglutide, the first GLP-1 receptor agonist approved for chronic weight management, represented a major milestone by demonstrating that pharmacological modulation of appetite could produce clinically meaningful and sustained weight loss. More recently, incretin-based therapies have revolutionized the field. Semaglutide, a once-weekly GLP-1 receptor agonist, consistently achieves average weight reductions approaching 15%, while tirzepatide, the first dual GIP/GLP-1 receptor agonist, has demonstrated weight loss exceeding 20% in clinical trials, together with substantial improvements in glycaemic control, cardiometabolic risk factors, and obesity-related complications. These therapies have fundamentally changed expectations regarding medical obesity treatment, narrowing the efficacy gap between pharmacotherapy and metabolic bariatric surgery.

Beyond efficacy, the presentation will address practical aspects of obesity pharmacotherapy, including patient selection, individualized treatment strategies, dose escalation, management of adverse effects, long-term adherence, and the prevention of weight regain following treatment discontinuation. The integration of pharmacological treatment with nutritional, behavioural, and physical activity interventions, within a multidisciplinary model of care, will also be discussed.

Finally, the lecture will explore the rapidly evolving therapeutic pipeline that is expected to further redefine obesity management. Retatrutide, a triple GLP-1/GIP/glucagon receptor agonist, has demonstrated weight reductions approaching 24% in clinical studies, while oral incretin therapies, including orforglipron and oral semaglutide, promise to expand treatment accessibility while maintaining high efficacy. Novel combination approaches, including CagriSema and the unimolecular GLP-1/amylin receptor agonist amycretin, have shown remarkable potential, with weight loss approaching or exceeding 20% in early clinical studies. Together, these next-generation therapies are expected to deliver greater and more durable weight reduction, improve body composition and cardiometabolic health, and accelerate the transition toward personalized, mechanism-based treatment for people living with obesity.

Invited Abstracts

IA31 GLP-1, SGLT2, and Beyond: Redefining Diabetes Care in Internal Medicine

Nadia Othonos[1]

[1]The Care Medical Institute.

Type 2 diabetes management has undergone a fundamental transition from glucose-centred treatment escalation towards integrated cardiovascular, renal, metabolic and weight management. This presentation reviews how glucagon-like peptide-1 receptor agonists (GLP-1 RAs), sodium-glucose cotransporter-2 (SGLT2) inhibitors and newer therapies are redefining diabetes care across internal medicine.

GLP-1 RAs provide potent glucose lowering with a low intrinsic risk of hypoglycaemia, while promoting clinically meaningful weight loss. Cardiovascular outcome trials have demonstrated reductions in major adverse cardiovascular events with selected agents. More recently, SELECT showed cardiovascular benefit with semaglutide in people with overweight or obesity and established cardiovascular disease without diabetes, while FLOW provided dedicated evidence of kidney protection in people with type 2 diabetes and chronic kidney disease.

SGLT2 inhibitors have similarly moved beyond their original role as glucose-lowering drugs. Their benefits in heart failure and chronic kidney disease occur rapidly, are disproportionate to changes in glycated haemoglobin and extend to many patients without diabetes. Trials including EMPA-REG OUTCOME and DAPA-CKD established reductions in cardiovascular death, heart-failure events and progression of kidney disease. These findings have transformed SGLT2 inhibitors into cardiorenal therapies relevant to cardiologists, nephrologists, general physicians and perioperative teams.

Treatment selection should therefore be driven by clinical phenotype. GLP-1-based therapy may be prioritised when atherosclerotic cardiovascular disease, obesity or the need for substantial glucose lowering predominates. SGLT2 inhibition should be prioritised in heart failure and eligible chronic kidney disease. Because these conditions frequently overlap, the two drug classes should often be considered complementary rather than competing treatments.

The therapeutic landscape continues to expand. Dual GIP/GLP-1 receptor agonism with tirzepatide offers very high glycaemic and weight-loss efficacy, with cardiovascular outcome evidence now available. Finerenone addresses residual cardiovascular and kidney risk in people with type 2 diabetes and albuminuric chronic kidney disease despite renin-angiotensin system blockade.

Effective implementation requires attention to gastrointestinal intolerance, dehydration, genital infections, euglycaemic ketoacidosis, perioperative medication management, renal function, potassium monitoring, affordability and patient preference. The central message is clear: modern diabetes treatment should target the outcomes that threaten the individual patient, not glycated haemoglobin in isolation. It places prevention, multimorbidity and shared decisions at centre of care.

IA32 P90 ribosomal S6 kinases: A bona fide target for novel targeted anticancer therapies?

Konstantinos Dimas[1], Dimitra Alexopoulou[1], Fani Koutsougianni[1], Evangelia Papadogianni[1]

[1]Laboratory of Pharmacology, Faculty of Medicine, School of Health Sciences, University of Thessaly. 1Laboratory of Pharmacology, Faculty of Medicine, School of Health Sciences, University of Thessaly.

The 90-kDa ribosomal S6 kinase (RSK) family comprises highly conserved serine/threonine kinases which function as key downstream effectors of the Ras/ERK/MAPK signalling cascade. Following the activation of ERK1/2, RSKs are phosphorylated and subsequently regulate a broad spectrum of downstream substrates. This process orchestrates multiple signalling networks involved in fundamental cellular processes, including cell survival, growth, proliferation, epithelial-mesenchymal transition (EMT), invasion and metastasis. Aberrant RSK expression and activation have been documented in several malignancies, including breast, prostate and lung cancers, highlighting their potential role in tumour development and progression.

Recent advances have substantially expanded our understanding of RSK biology, molecular functions and the mechanisms involved in carcinogenesis. This article highlights current insights into the role of RSK signalling in cancer, critically examining recent progress, challenges and limitations in developing pharmacological RSK inhibitors. Particular emphasis is placed on the therapeutic potential of targeting RSKs as a strategy for developing novel anticancer agents and approaches. Additionally, our laboratory's in vitro and in vivo findings provide further evidence supporting the anti-cancer activity of RSK inhibition in highly aggressive malignancies, including pancreatic ductal adenocarcinoma (PDAC) and triple-negative breast cancer (TNBC).

Overall, the available evidence identifies RSKs as promising molecular targets in oncology, supporting further efforts to develop selective, pharmacologically optimised RSK inhibitors to treat aggressive and difficult-to-treat cancers.

Invited Abstracts

IA33 Holmium Laser Enucleation of the Prostate: Reframing the Surgical Management of Benign Prostatic Enlargement

Marios Hadjipavlou[1,2,3,4]

[1]El Greco Medical Centre, Nicosia; 2The Princess Grace Hospital, London; 3UNIC School of Medicine; 4King's College London School of Medicine

Benign prostatic hyperplasia (BPH) is among the commonest conditions affecting ageing men. Histological BPH is present in approximately 50% of men aged 51–60 years and approaches 80–90% in older age groups. With an ageing population, the burden of symptomatic benign prostatic obstruction and the requirement for surgical treatment are expected to increase. In England alone, more than 155,000 men underwent a first surgical procedure for benign prostate enlargement during a recent 10-year period.

For decades, transurethral resection of the prostate (TURP) was considered the benchmark surgical treatment. Holmium Laser Enucleation of the Prostate (HoLEP) represents a fundamentally different approach: rather than creating a channel through the enlarged prostate, the obstructing adenoma is anatomically enucleated from its capsule using a holmium laser and removed endoscopically, without external incisions.

HoLEP is size-independent and combines excellent symptom and urinary-flow improvement with low blood loss, short catheterisation and hospitalisation, rapid recovery and exceptional long-term durability. Randomised studies demonstrate shorter catheterisation and hospital stay than TURP, while long-term evidence shows low retreatment rates. Importantly, erectile function is generally preserved; prospective randomised data show no significant deterioration in erectile function following HoLEP, although retrograde ejaculation remains common.

The European Association of Urology strongly recommends HoLEP as an alternative to TURP or open prostatectomy, and endoscopic enucleation has become a reference treatment particularly for large prostates.

This presentation will introduce the clinical burden of BPH, explain the principles of HoLEP and examine how anatomical laser enucleation is reshaping contemporary surgical management of benign prostatic obstruction.

IA34 From Zebrafish Xenografts to Cancer Avatars to Functional Precision Oncology

Nikolaos Dietis[1]

[1]University of Cyprus Medical School, Nicosia, Cyprus

Zebrafish xenografts provide a rapid and experimentally versatile in vivo platform for studying cancer biology, tumour–host interactions, and pharmacological responses, while supporting scalable drug discovery and repurposing. Patient-derived zebrafish xenografts (zPDX) extend this concept further by creating "cancer avatars" that enable functional assessment of an individual patient's tumour behaviour and therapeutic response. This presentation will discuss the progression from experimental zebrafish cancer models to patient-specific functional testing, highlighting recent work in cancer pharmacology and the emerging potential of Zebrafish Avatars to enable faster and more individualized functional precision oncology. The talk will also present the first two co-clinical oncology studies in Cyprus to use the zPDX model: the zBRAIN study, which aims to evaluate the predictive validity of Zebrafish Avatars in glioblastoma, and the ZEN-OMICS study, which integrates multi-omics-guided drug repurposing with functional zebrafish testing in triple-negative breast cancer.

IA35 Endothelin Receptor Blockade Potentiates Adoptive T-Cell and CAR T-Cell Therapies

Philippos Demetriou[1]

[1]The Center for the Study of Haematological and Other Malignancies (CSHM), Karaiskakio, Nicosia, Cyprus

Adoptive T-cell therapies have transformed the treatment of selected haematological malignancies but remain limited in many cancer settings by biological barriers that restrict effective and durable antitumour responses. Here, we investigated whether pharmacological blockade of the endothelin receptor pathway, which regulates vascular, stromal and immune processes relevant to antitumour responses, could enhance T-cell-based cellular immunotherapy. Using orthotopic 4T1 triple-negative breast cancer and A20 B-cell lymphoma models, we evaluated endothelin receptor blockade with non-engineered adoptive T-cell therapy and anti-CD19 CAR T-cell therapy, respectively, with or without immune checkpoint inhibition. Endothelin receptor blockade substantially increased tumour-control responses across both therapeutic platforms, while the addition of immune checkpoint inhibition further increased their frequency and promoted maintained complete responses, resulting in the most durable tumour control. Mice achieving maintained complete responses resisted tumour rechallenge, consistent with long-term antitumour immune protection. High-dimensional T-cell profiling identified distinct intratumoral T-cell states associated with tumour control and elevated CD2 expression as a recurring feature across these populations. Together, these findings identify endothelin receptor blockade as a rational combinatorial strategy for enhancing T-cell-based cellular immunotherapy and provide a strong rationale for the clinical evaluation of this therapeutic strategy.

IA36 Patient-Enabled Personalised Cancer Monitoring: Living Nodes in the Internet of BioThings

Andreani Odysseos[1]

[1]EPOS-Iasis, R&D

Reactive healthcare is unsustainable. Sustainability is achieved with new technologies spearheading radical transformation. The Internet of Bio-things (IoBT) has the unprecedented potential to integrate "deep sensors and deep data" and provide dynamic digital fingerprints of disease progression. Personalized cancer diagnostics and Information Technology - enabled prediction of disease progression offer a vast opportunity in cancer care. Early detection of metastasis mediators in blood, known as Liquid Biopsy (LB), suffers from infrequent temporal sampling leading to critical delays, and uncertain sensitivity due to finite number of blood samples. We develop a personalized and multifunctional solution for minimally-invasive, long-term, high temporal-sampling, in vivo continuous monitoring of minimal residual disease (MRD) and progression of metastasis, comprising: a personalized, implantable biosensor that detects circulating biomarkers via appropriate receptors and converts the detected molecules into an optical signal. The biosensor, based on patient cells, is grown and delivered for subcutaneous delivery in a "biosensor delivery capsule". A patient wrist-band monitor, a convenient watch-like device to detect the light emitted by the cells of the biosensor and alert the patient. A customized mobile application communicates with the monitor, processes detected emission, infer the presence of molecules released by metastatic cells and inform the patient and the physician. The system is supplemented with an implant imager. This prototype has the great potential to be translated to an IoBT Platform, offering a novel precision medicine solution. This work leads towards global and sustainable transformation of metastasis and LB markets with high prospect to usher the Cyprus medical and ICT communities to the burgeoning arena of IoBT. It is enabled with cloud data management, services and analysis (mHealth) integrating emerging prediction and personalization algorithms for the collection, mining, processing and management of patient data collected globally via the network of interconnected biosensors, transforming patients to living IoBT nodes.

Invited Abstracts

IA37 The Future of Endocrinology: Obesity, Type 2 Diabetes and Healthy Longevity

Polys Evripidou[1]

[1]*School of Medicine University of Cyprus*

This presentation explores the transformation of modern endocrinology through the interconnected challenges of obesity, type 2 diabetes, cardiometabolic disease and healthy longevity. It begins with the contemporary understanding of obesity as a chronic, biologically regulated disease and examines how excess adiposity, insulin resistance and metabolic dysfunction contribute to cardiovascular, renal and hepatic complications.

It then presents the clinical evidence that is already reshaping medical practice. New incretin-based therapies, together with emerging multi-agonist treatments, are shifting therapeutic goals beyond weight loss and glycaemic control toward organ protection and disease modification.

The presentation also looks ahead to continuous monitoring, wearable technologies, artificial

intelligence, digital biomarkers, genomics, multi-omics and precision medicine. The convergence of these advances is creating a more personalized, multidisciplinary and preventive model of endocrinology.

The central message is that the future of endocrinology will extend beyond HbA1c and beyond

weight loss. The goal will increasingly be to identify risk earlier, intervene more precisely, preserve organ function and ultimately promote healthy longevity - adding not only years to life, but health to those years.

IA38 Can a small country make a global health difference? From national evidence to international action in childhood cancer

Loizos Loizou[1]

[1]*chool of Medicine, University of Nicosia*

Childhood cancer illustrates profound global-health inequality. While most children in well-resourced settings can now be cured, many elsewhere still lack timely diagnosis, essential medicines, specialised care and trained professionals. The challenge is therefore not only to generate knowledge, but to translate expertise and resources into practical action.

Cyprus offers an example of how a small country can build such capacity. Over more than three decades, specialised paediatric oncology services, clinical expertise, professional networks and civil-society engagement were developed. Population-based research through the Paediatric Oncology Registry of Cyprus (PORCY) added a robust national evidence base on incidence, trends, survival and mortality; five-year overall survival reached 81.7% and improved significantly over time.

The approach can be summarised as build, analyse and translate: build infrastructure and expertise, analyse the problem scientifically, and translate knowledge into action. During the later stages of this work, the Cyprus International Action Plan for Children with Cancer (Cy-IAPCC) was developed to extend national experience and evidence into international cooperation.

Cy-IAPCC, initiated and led by the author with the support of the ELPIDA Foundation, has already moved from framework to implementation, mobilising governmental, civil-society and international partners around concrete actions. Life-saving chemotherapy, essential medicines and supportive treatments have been delivered or organised across several African countries, including Senegal, Burkina Faso, Côte d'Ivoire, Morocco and Botswana; 6,000 HPV vaccine doses have been arranged for Botswana; and training, scholarships, telemedicine, cancer-registration and capacity-building programmes are advancing. The aim is practical: to reduce avoidable inequalities in access to care.

The Cyprus experience suggests that small states may compensate for limited scale through focused expertise, flexibility, close coordination, international networks and the ability to mobilise targeted action rapidly. Even modest interventions can enable treatment, strengthen professional teams and create sustainable partnerships.

Global health impact should therefore not be measured only by country size or absolute resources. National achievement can become international responsibility, and small countries can become effective bridges between knowledge, need and action.

Invited Abstracts

IA39 Peripheral Artery Disease: Where Do We Stand Today?

Achilleas Toursidis[1]

[1]*Angiologiko Kentro, Cyprus*

Peripheral artery disease (PAD) is a common manifestation of systemic atherosclerosis and is associated with a substantial risk of cardiovascular events, disability, and limb loss. Contemporary management therefore extends beyond treatment of the affected limb and focuses on comprehensive cardiovascular risk reduction, accurate diagnosis, exercise therapy, and individualized revascularization.

This presentation reviews the current approach to PAD, emphasizing the role of clinical assessment, ankle-brachial index and duplex ultrasound, with advanced imaging reserved for treatment planning. Best medical therapy remains the cornerstone of management and includes smoking cessation, structured exercise, lifestyle modification, intensive lipid-lowering therapy, blood pressure and diabetes control, and appropriate antithrombotic treatment.

For intermittent claudication, revascularization should be considered selectively in patients with lifestyle-limiting symptoms despite optimal conservative treatment. In chronic limb-threatening ischemia, rapid multidisciplinary assessment and a structured approach incorporating WIfI and GLASS classifications are essential to achieve limb salvage and preserve function.

Current evidence supports an individualized choice between endovascular and open surgical strategies, taking into account anatomy, conduit availability, life expectancy, frailty, and local expertise. Newer technologies, including drug-coated balloons, drug-eluting stents, and intravascular imaging, continue to influence practice, while vein bypass remains an important option in appropriately selected patients.

Ultimately, optimal PAD care requires a patient-centered, multidisciplinary strategy in which medical therapy, exercise, surveillance, and revascularization are integrated to improve both limb and cardiovascular outcomes.

IA40 Connective Tissue Disease-associated ILD: Current challenges and emerging opportunities

Alexis Papadopoulos[1]

[1]*MedCare Clinic, Nicosia, Cyprus*

Connective tissue disease-associated interstitial lung disease (CTD-ILD) represents a major cause of morbidity and mortality among patients with systemic autoimmune diseases. Its clinical and radiological heterogeneity, variable disease course, and frequent overlap between inflammatory and fibrotic pathways present significant challenges in diagnosis, risk stratification, and treatment. Recent advances in multidisciplinary assessment, imaging, biomarkers, and molecular profiling are improving our ability to identify patients at risk of progressive pulmonary fibrosis. At the same time, emerging antifibrotic and targeted immunomodulatory therapies are expanding therapeutic options and supporting a more individualized approach to management. This lecture will review current challenges in the diagnosis and management of CTD-ILD and discuss emerging opportunities for earlier detection, personalized treatment, and improved long-term outcomes.

IA41 Sleep Apnea: Beyond the Airway – A Systemic Disease Hidden in Plain Sight

Dimitrios Grassos[1]

[1]*Pulmonology Clinic Panarcadian Hospital Tripolis*

Obstructive sleep apnea (OSA) is traditionally regarded as a disorder of recurrent upper airway collapse during sleep. However, accumulating evidence has established OSA as a complex systemic disease with far-reaching consequences that extend well beyond the respiratory system. Repetitive episodes of intermittent hypoxia, sleep fragmentation, oxidative stress, sympathetic nervous system activation, endothelial dysfunction, and chronic low-grade inflammation initiate a cascade of pathophysiological processes affecting multiple organ systems. OSA is strongly associated with cardiovascular diseases, including systemic hypertension, coronary artery disease, heart failure, atrial fibrillation, stroke, and pulmonary hypertension. It also plays a significant role in metabolic dysfunction, contributing to insulin resistance, type 2 diabetes mellitus, dyslipidemia, and obesity, creating a bidirectional relationship that perpetuates disease progression. Furthermore, untreated OSA is increasingly recognized as a risk factor for chronic kidney disease, non-alcoholic fatty liver disease, cognitive impairment, depression, neurodegenerative disorders, and impaired immune regulation. Emerging evidence also suggests potential links between OSA and cancer biology through mechanisms involving intermittent hypoxia and immune dysregulation.

The clinical presentation of OSA often remains underrecognized because symptoms such as excessive daytime sleepiness, fatigue, poor concentration, mood disturbances, and reduced quality of life are frequently attributed to aging, stress, or other chronic conditions. Consequently, millions of individuals remain undiagnosed despite experiencing significant morbidity and increased healthcare utilization.

This review highlights the evolving concept of OSA as a multisystem disorder rather than an isolated respiratory disease. It summarizes current knowledge regarding the underlying biological mechanisms connecting OSA with systemic pathology, discusses its broad clinical implications, and emphasizes the importance of early diagnosis through appropriate screening strategies. The role of continuous positive airway pressure (CPAP), weight reduction, lifestyle interventions, oral appliances, and emerging therapeutic approaches is reviewed, focusing on their potential to improve not only sleep-related symptoms but also cardiovascular, metabolic, and neurocognitive outcomes.

Recognizing sleep apnea as a systemic disease hidden in plain sight shifts the clinical paradigm from treating airway obstruction alone to implementing comprehensive multidisciplinary care. Earlier identification and personalized management have the potential to reduce long-term complications, improve patient outcomes, and lessen the global burden of this highly prevalent yet frequently overlooked disorder.

Invited Abstracts

IA42 Building Cardiovascular Resilience: Lifestyle Medicine and the Prevention of Cardiomyopathy

Vicky Zeniou[1]

[1]*Nicosia Polyclinic, Nicosia, Cyprus*

Background: Resilience is the ability to adapt to adversity, cope with stress, and recover from challenging life experiences. In the context of cardiovascular health, resilience plays an important role in how individuals respond to illness, lifestyle changes, and the psychological challenges associated with cardiovascular disease.

Objective: This presentation explores the relationship between resilience, psychological well-being, and cardiovascular health, with particular emphasis on the role of healthy lifestyle choices and cardiac rehabilitation in strengthening patients' ability to cope with illness and improve their quality of life.

Content: The presentation examines the impact of chronic stress, anxiety, and emotional well-being on cardiovascular health and discusses practical strategies for developing resilience. Particular attention is given to regular physical activity, healthy nutrition, adequate sleep, social support, positive coping mechanisms, and patient education. Cardiac rehabilitation is presented not only as a personalized program for physical recovery but also as an opportunity to empower patients, restore confidence, and develop sustainable healthy habits.

Conclusion: Resilience is an important component of cardiovascular care and prevention. Supporting patients in developing resilience can help them better manage adversity, adopt healthier behaviors, and improve their overall physical and mental well-being. A holistic approach that combines medical treatment with education, physical activity, psychological support, and lifestyle modification can contribute to healthier and more resilient individuals

IA43 Vaccines as new Treatment approach for Neurological Autoimmune Diseases

Marios Pantzaris[1]

[1]*Neuroimmunology Department, Cyprus Institute of Neurology and Genetic, Nicosia, Cyprus*

The high incidence and prevalence of autoimmune diseases have become an important public health issue with major impact both on health and economy. Autoimmune diseases result from the pathological attack of our immune system against our own healthy cells and tissue. This results in a chronic inflammation, tissue injury, and impaired end-organ function. Existing treatments primarily rely on lifelong immunomodulation/ immunosuppression, with partial treatment, leaving patients vulnerable to infections. For these unmet needs, an emerging scientific fight towards vaccine development is already going on, aiming in restoring immune function by inducing immune tolerance to autoantigens. This hopeful global scientific effort is offering a potential avenue for a cure rather than a predominantly symptomatic treatment of autoimmune disorders.

IA44 Amyloid-Targeting Therapies in Alzheimer's Disease: From Pathophysiological Rationale to Clinical Practice

Costas Michaelides[1]

[1]*American Medical Center/American Heart Institute Cyprusr*

Alzheimer's disease (AD) is entering a new therapeutic era with the emergence of amyloid-targeting monoclonal antibodies that have demonstrated the ability to reduce cerebral amyloid burden and slow clinical progression in patients with early symptomatic disease. Lecanemab and donanemab have established proof-of-concept that modifying a core pathological feature of AD can translate into measurable, although clinically modest, slowing of cognitive and functional decline, fundamentally changing the therapeutic landscape from symptomatic management toward disease modification. This presentation will review the current evidence for amyloid-targeting therapies, focusing on the relationship between amyloid removal, disease stage and clinical benefit, and on the practical implications for clinical practice

IA45 Persistent Viral Infection as a Potential Driver of Intestinal Ageing and Tumour Initiation: Insights from Drosophila

Savvas Telonis[1]

[1]*Molecular Virology Department, The Cyprus Institute of Neurology & Genetics Nicosia, Cyprus*

Persistent viral infections are common and may have biological consequences extending far beyond acute disease. Sustained infection can disrupt tissue homeostasis, alter stem-cell behaviour, amplify inflammatory and cellular-stress signalling, and potentially accelerate age-associated pathologies, including dysplasia. Nevertheless, the causal mechanisms linking persistent infection to ageing, dysplasia and tumour initiation remain incompletely defined.

Building on our recent finding that aberrant intestinal progenitor-cell clustering represents an early-life biomarker of ageing in Drosophila, we use the adult fly midgut to investigate how persistent picorna-like viral infection influences intestinal ageing, dysplasia and tumour initiation. The adult fly midgut provides genetically tractable intestinal stem cells, conserved regulatory pathways and rapid assessment across the lifespan. Our approach combines controlled infection, tissue-specific genetic manipulation, confocal imaging, molecular virology and lifespan analysis. Key readouts include viral load, intestinal stem/progenitor-cell expansion, aberrant Intestinal Stem Cell (ISC) cell clustering, mitotic activity, DNA-damage responses, epithelial architecture and age-dependent survival.

Our working model proposes that persistent infection creates a chronic regenerative state in which repeated epithelial stress and compensatory stem-cell activation progressively erode tissue organisation. Early cellular abnormalities may therefore represent not only consequences of ageing but also candidate early biomarkers of subsequent dysplasia and tumour formation. By manipulating host pathways and testing interventions that affect nutrient sensing, DNA replication and cellular stress responses, we aim to identify mechanisms that accelerate or restrain virus-associated tissue decline.

This presentation will discuss the biological rationale, experimental framework and translational value of integrating virology, genetics, imaging and disease modelling. Establishing causal links between persistent infection, stem-cell dysfunction and tumour initiation may reveal new opportunities for early risk stratification and therapeutic intervention in chronic virus-associated disease.

Invited Abstracts

IA46 Epigenetics in cancer: New mechanistic insights from chromatin proteomics

Antonis Kirmizis[1]

[1]*Department of Biological Sciences, University of Cyprus, Cyprus*

Epigenetic modifications such as those occurring on histone proteins are important regulators of genome function and misregulation of these histone marks has been linked to carcinogenesis. These histone modifications commonly function by controlling the binding of specific effector proteins, known as readers, onto chromatin which is then translated to a downstream functional outcome. One abundant modification is histone N-terminal acetylation which is largely mediated by the N-terminal-acetyltransferase (NAT)-family member NAA40/NatD. Previous work from our group and others has uncovered the oncogenic role of NAA40 in various cancer types, including colon, breast and lung, by selectively targeting histones H4 and H2A. However, it remains unclear whether NAA40-mediated histone N-terminal acetylation (Nt-Ac) influences the recruitment of effector molecules and thereby controlling important DNA-based processes. To address this question, we employed nucleosome affinity purifications coupled to proteomics and notably we found that N-terminal acetylation on histone H4 blocks recruitment of key DNA repair proteins responsible for an effective response to replication stress. In line with this, we find that NAA40 and its mediated histone Nt-Ac are important regulators for maintaining genome stability during DNA replication. Overall, this work uncovers a novel cellular function for the epigenetic enzyme NAA40 and histone N-terminal acetylation, providing new mechanistic insight into their role in replication stress and, consequently, their impact on carcinogenesis.

IA47 The role of genetic disease modifiers in prognosis, therapy and equity of treatment for rare diseases

Carsten Werner Lederer[1]

[1]*Blood Disorder Genetics & Thalassemia, The Cyprus Institute of Neurology & Genetics (CING)*

Genetic disease modifiers (GDMs) strongly affect disease and therapy outcomes, rendering their characterization essential for prognosis, treatment decisions, and therapy development. A paradigm for the importance of GDMs are β-hemoglobinopathies, for which a growing pipeline of emerging curative and disease-modifying therapies are based on the manipulation of GDMs. However, beyond their role as therapeutic targets, GDMs are also gaining clinical importance in the choice and planning of disease-modifying therapies, the selection and customization of curative therapies, and the equitable provision and global reach of therapies across ethnic groups and geo-economic divides. Here we define roles of GDMs in all four of these fields, highlight their potential to promote choice, effectiveness, affordability, and equitable provision of treatment, and emphasize the importance of capacity building through multiethnic GDM-related research. We conclude that consideration of GDMs at all stages of development and care will be critical to addressing the needs of affected communities.

IA48 Emerging Biohazards and Future Public Health Challenges: A Biosafety Perspective

Timo Kehl[1]

[1]*German Cancer Research Center (DKFZ), Heidelberg, Germany*

The biological risk landscape is undergoing profound changes driven by environmental transformation, increasing global interconnectedness, and rapid advances in biotechnology. Emerging infectious diseases, zoonotic spillover events, antimicrobial resistance, and the growing accessibility of powerful biological technologies present new challenges for public health systems worldwide. At the same time, scientific innovation in fields such as synthetic biology, gene editing, and biotechnology offers unprecedented opportunities for medicine, research, and societal benefit.

From a biosafety perspective, these developments require a reassessment of how biological risks are identified, evaluated, and managed. Traditional biosafety approaches have focused primarily on laboratory containment, occupational protection, and the prevention of accidental exposure. While these principles remain fundamental, the complexity of modern biological threats demands a broader and more integrated approach.

This presentation explores key drivers shaping the future biological risk landscape, including emerging infectious diseases, environmental and societal changes, technological innovation, and the increasing convergence of biosafety, biosecurity, and research security considerations. Particular attention will be given to the challenges associated with responsible biotechnology, the dual-use potential of modern life science research, and the need for resilient governance frameworks capable of adapting to rapidly evolving scientific capabilities.

Drawing on experiences from biosafety practice, pandemic preparedness, and biological risk management, the presentation will discuss how biosafety can contribute to strengthening public health resilience in an increasingly interconnected world. It argues that future biosafety must extend beyond traditional containment concepts and embrace preparedness, institutional resilience, responsible innovation, and proactive risk governance.

As biological risks continue to evolve, effective protection of public health will depend not only on scientific and technological progress but also on the ability of institutions, researchers, and policymakers to anticipate, understand, and responsibly manage emerging biohazards.

Photos from 2025 the 13th IMBMC

























Photos from 2025 the 13th IMBMC

























Photos from 2025 the 13th IMBMC















Selected Abstracts

SA01 Immune cytolytic activity correlates with tumor microenvironmental aberrations in colorectal cancer

Stephanie Agioti [1,2], George Georgoulias [1], Ilias Georgakopoulos-Soares [1,3], Maria-Ioanna Christodoulou [1], Apostolos Zaravinos [1,2]

[1] Department of Life Sciences, School of Sciences, European University Cyprus, Nicosia, Cyprus; Cancer Genetics, Genomics and Systems Biology Laboratory, Basic and Translational Cancer Research Center (BTCRC), Nicosia, Cyprus; [3] Division of Pharmacology and Toxicology, Dell Paediatric Research Institute, College of Pharmacy, The University of Texas at Austin, Austin, TX 78712, USA

Keywords: Colorectal cancer; immune cytolytic activity; tumor immune microenvironment; immune signatures; gene expression profiling; cancer neoepitopes; gene mutations; somatic copy number alterations; immune checkpoints; chromothripsis; LDH release assay; HCT-116 and HT-29 colorectal cancer cell lines; 3D tumor models; immune cell infiltration; CD8+ T cells; apoptosis; GZMA; PRF1.

Abstract

Colorectal cancer (CRC) exhibits a highly heterogeneous tumor immune microenviron-ment (TME), ranging from "immune-inflamed" to "immune-desert" or "immune-excluded" phenotypes. Understanding how immune cell composition, cytolytic activity (CYT) and genomic alterations shape tumor-immune interactions is critical for improving immunotherapy outcomes. We analyzed TCGA-COAD and TCGA-READ datasets to evaluate immune competency, CYT, immune subtypes, microsatellite instability (MSI), and genomic instability, including somatic mutations, copy number aberrations (CNAs), and chromothriptic events. Immune cell infiltration was correlated with CYT levels, immune checkpoint expression, and immune-related gene signatures. Immune-competent (IC) tumors were predominantly CYT-high, enriched in stromal and immune scores, and exhibited distinct TME characteristics compared with immune-deficient (ID) tumors. IC/CYT-high tumors expressed higher levels of immune checkpoints (PD-1, PD-L1, CTLA-4, IDO1/2, LAG-3) and cytokines/chemokines (C1QA/B/C, CXCL9/10/11, CXCL13). Differences in immune infiltration were observed across tumors with significant mutations and copy number alterations. No prognostic difference was observed between CYT-high and CYT-low patients, indicating that CYT reflects immune activation rather than clinical outcome. Functionally, stimulated CD8* T cells exhibited cytotoxicity activity against MSI-high (HCT-116) and microsatellite-stable (HT-29) CRC cells, with MSI-H cells showing higher sensitivity. Dynamic 3D co-culture demonstrated tumor-guided T cell infiltration and retention of CD8 expression, and co-culture was associated with moderate upregulation of cytotoxicity-related genes GZMA and PRF1 within the system. Cytotoxic activity decreased at lower effector-to-target ratios, highlighting the importance of effector dose. Overall, these findings link CYT, immune competency, MSI status, and genomic in-stability to T cell cytotoxic responses, providing insights into tumor-immune interactions, and suggest potential associations relevant for immunotherapy research in CRC.

SA02 Delayed Conduction Disturbance After Edwards EVOQUE Transcatheter Tricuspid Valve Replacement: An Emerging Clinical Challenge

Constantinos Antoniades [1], Georgia Karmioti [1], Nicolaos Eteocleous [1], Ioannis Zittis [1], Kimon Myrianthopoulos [1], Theodoros Christophides [1,] Christis Rotos [1], Marios Ioannides [1], Nikolaos Kadoglou [2], Andreas Mitsis [1], Christos Eftychiou [1]

[1] ardiology Department, Nicosia General Hospital, Nicosia, Cyprus; [2] Medical School, University of Cyprus, Nicosia, Cyprus

Abstract

Introduction: Transcatheter tricuspid valve replacement (TTVR) with the Evoque system has emerged as a promising treatment option for severe symptomatic tricuspid regurgitation in patients at prohibitive surgical risk. However, experience with post-procedural conduction disturbances remains limited. We present a case of delayed symptomatic bradyarrhythmia following successful Edwards EVOQUE valve implantation, highlighting challenges in post-procedural monitoring, pacing strategy, and multidisciplinary decision-making.

Material and Methods: Clinical information was obtained retrospectively from the patient's medical records (with written informed consent)

Results: A 72-year-old woman with severe symptomatic tricuspid regurgitation, chronic atrial fibrillation, previous surgical mitral valve replacement, diabetes mellitus, and dyslipidaemia underwent uncomplicated TTVR with a 48-mm EVOQUE valve. Baseline electrocardiography demonstrated atrial fibrillation with incomplete right bundle branch block. The prosthesis was successfully implanted with trace residual regurgitation and normal valve function on echocardiography. The patient remained stable and was discharged on day 6. Twenty-four hours later, she was readmitted with dizziness, hypotension, atrial fibrillation with slow ventricular response, and prolonged pauses. Telemetry demonstrated transient bradyarrhythmia requiring beta-blocker withdrawal and temporary isoprenaline infusion. Following Heart Team discussion, permanent pacing was considered. The initial pacing strategy involved coronary sinus lead placement to avoid transvalvular passage and thereby preserve the integrity and function of the prosthesis. However, attempts to position the lead in various branches failed because of unstable positioning, high pacing thresholds, and phrenic nerve capture. Subsequent attempts to cross the prosthesis with a guidewire and conventional right ventricular lead were unsuccessful. Following Heart Team discussion, a conservative strategy was adopted. The bradyarrhythmia resolved after close observation, allowing cautious reintroduction of low dose beta-blocker. No further significant pauses were documented on prolonged monitoring, and the patient was discharged with early outpatient follow-up.

Conclusions: This case highlights the emerging challenge of delayed conduction disturbances following Evoque TTVR, raising important questions regarding post-procedural rhythm surveillance and discharge timing. It also demonstrates that permanent pacing may be technically challenging after TTVR, emphasizing the importance of pre-procedural Heart Team planning for pacing strategies. As TTVR adoption increases, further evidence is needed to define optimal monitoring pathways and guide selection of conventional versus leadless/epicardial pacing systems

Selected Abstracts

SA03 A multi-omics analysis of effector and resting Treg cells in pan-cancer

SA03 Anticancer and Antioxidant Potential of Plant-Derived Extracts through Modulation of the Kynurenine Pathway

Evgenia Maria Tsantila [1], Nils Esslinger [2] and Christiana M. Neophytou 1

[1] Apoptosis and Cancer Chemoresistance Laboratory, Basic and Translational Cancer Research Center, Department of Life Sciences, European University Cyprus, Nicosia 2404, Cyprus; et221233@students.euc.ac.cy, 2 Department of Research and Development, Alpinamed AG, 9306 Freidorf, Switzerland; nils.esslinger@alpinamed.ch

*Correspondence: c.neophytou@euc.ac.cy; Tel.: +357-22713218

Abstract

Background: The kynurenine pathway (KYNP) is the major route of tryptophan metabolism and significantly affects cancer metabolic activity, oxidative stress, inflammation, and immune response [1]. Natural plant-derived extracts contain diverse bioactive compounds that may target these processes simultaneously [2]. We aim to investigate the chemopreventive and anticancer properties of extracts and subfractions from Vitis vinifera (VV) in combination with Rosa canina (RC), Citrus aurantium blossom (CAB), and Citrus sinensis (CS), with emphasis on KYNP modulation in brain and liver cancer models. We hypothesize that these extracts will exert antioxidant and anticancer effects and modulate KYNP activity through differential regulation of Indoleamine 2,3-dioxygenase 1 (IDO1), Indoleamine 2,3-dioxygenase 2 (IDO2), and Tryptophan 2,3-dioxygenase 2 (TDO2).

Methods: Crude extracts and fractions were initially assessed by MTT assay to determine cell viability and suitable concentrations for subsequent experiments. Intracellular antioxidant activity was assessed using the DCFH-DA assay, while ABTS and Oxygen Radical Absorbance Capacity (ORAC) were used to evaluate cell-free antioxidant capacity. The effects of selected extracts on the expression of key KYNP enzymes IDO1, IDO2, and TDO2 were investigated by real-time PCR in A172 glioblastoma and HepG2 liver cancer cells under basal and IFN-γ-stimulated conditions.

Results: VV showed the strongest concentration-dependent effects on cell viability among the tested extracts. DCFH-DA analysis demonstrated differences in intracellular antioxidant activity between extracts and fractions, with VV Fractions 3 and 4 showing particularly strong activity. ABTS and ORAC identified VV fractions, particularly Fractions 3 and 4, among the strongest antioxidant samples, with CS and CAB showing fraction-specific antioxidant activity. Real-time PCR analysis showed differential modulation of IDO1, IDO2, and TDO2 expression in A172 and HepG2 cells. IDO1 was consistently reduced by several extracts, particularly under IFN-γ-stimulation, whereas IDO2 and TDO2 displayed more variable responses. Future work includes measurements of KYNP metabolites by LC-ESI-MS, together with NAD+/NADH and Coenzyme A, apoptosis induction, and protein levels to decipher the underlying pathways affected by the extracts. Selected extracts will also be evaluated in 3D organoid and immune-cell co-culture models to assess their effects on tumor–immune interactions. These findings support the potential clinical use of natural extracts as anticancer agents.

References

1. Gouasmi, R.; Ferraro-Peyret, C.; Nancey, S.; Coste, I.; Renno, T.; Chaveroux, C.; Aznar, N.; Ansieau, S. The Kynurenine Pathway and Cancer: Why Keep It Simple When You Can Make It Complicated. Cancers (Basel). 2022, 14.
2. Ali Abdalla, Y.O.; Subramaniam, B.; Nyamathulla, S.; Shamsuddin, N.; Arshad, N.M.; Mun, K.S.; Awang, K.; Nagoor, N.H. Natural Products for Cancer Therapy: A Review of Their Mechanism of Actions and Toxicity in the Past Decade. J. Trop. Med. 2022, 2022.

SA04 Plasma Cell-Free RNA Profiling for Organ Injury in Critical Illness

Ioannou A[1], Friman ET[1], Daub CO[2,3], Hope D[4], Baillie JK[4], Walsh TS[4], Craven TH[4], Bickmore WA[1], Biddie SC[1,4]

[1] MRC Human Genetics Unit, Institute of Genetics and Cancer, University of Edinburgh, Edinburgh, United Kingdom; [2] Department of Medicine Huddinge, Karolinska Institutet, Huddinge, Sweden; [3] Science for Life Laboratory, Solna, Sweden; [4] Department of Critical Care, Royal Infirmary of Edinburgh, NHS Lothian, Edinburgh, United Kingdom.

Abstract

Plasma cell-free RNA (cfRNA) comprises RNA molecules released into the circulation from tissues and cells throughout the body and can provide a molecular readout of tissue injury and disease. Resolving the tissue and cellular origins of these signals may provide insight into organ-specific injury and biological responses. However, such inference relies on computational deconvolution, and the reliability of methods in complex plasma cfRNA profiles remains incompletely characterised.

We systematically benchmarked eight deconvolution methods using multi-organ reference datasets derived from bulk and single-cell transcriptomic atlases. Performance was evaluated under realistic cfRNA simulations and across published clinical cfRNA cohorts. Deconvolution accuracy was strongly influenced by method and reference configuration. Tissue-of-origin inference was robust across simulation and clinical settings, recovering disease-associated organ signals and showing concordance with biochemical markers. In contrast, cell type-of-origin estimates were more variable and less consistent across analytical settings.

Building on these findings, benchmark-informed tissue- and cell type-of-origin deconvolution is being applied to plasma cfRNA from critically ill patients with out-of-hospital cardiac arrest (OHCA) and acute kidney injury (AKI). Preliminary analyses demonstrate disease-associated alterations in cfRNA-derived tissue and cellular profiles, with patterns related to clinical phenotype and disease severity. Ongoing analyses are characterising these signatures and evaluating their associations with biochemical markers of organ injury.

These findings highlight the potential of plasma cfRNA profiling as a minimally invasive biomarker platform for detecting disease-associated tissue and cellular changes in critical illness. Integrating cfRNA-derived tissue and cellular signals with clinical and biochemical markers may support earlier detection of evolving organ injury, patient stratification, and monitoring of disease severity and progression.

Selected Abstracts

SA05 THE CHALLENGES OF STIs IN THE DERMATOVENEREOLOGY OF THE XXIst CENTURY

Mihael Skerlev[1], Andrija Stanimirović[2]

[1] Chair of the HPV Task Force of the European Academy of Dermatology and Venereology (EADV), President of the Croatian STD Society of the Croatian Medical Association, St. Catherine's Special Hospital, Croatian Academy of Medical Sciences, Zagreb, Croatia; [2] School of Health Studies, University of Zagreb, Zagreb, Croatia and School of Medicine, European University Cyprus, Nicosia, Cyprus

Abstract

STIs trends in the 21st century differ markedly from those in the 20th century. This century in general is characterised by a significant (or recognized?) rise in viral STIs. The rise in new STIs technologies can be observed: new tests, rapid tests, self-sampling, walk-in-services and a rapid increase in the role of social networks including the LBGTQIA+ persons who are commonly stereotyped as sexually irresponsible, promiscuous, and immoral. The use of PrEP may be accompanied by the phenomena of risk compensation or behavioural disinhibition, whereby PrEP users' perception of decreased risk of HIV acquisition may lead them to engage in overall riskier sexual practices and increase their chances of acquiring STIs, such as syphilis, gonorrhea, HPV infections and scabies in particular. Some most recently described factors contribute to the high frequency of STIs (mostly in „developed" World): HIV risk compensation (PrEP, PEP, "serosorting" etc.), illicit drug abuse/chemsex, changing social and behavioural factors, (especially among young MSM), HIV coinfection etc. Effort must also be made to use transgender and non-binary affirming language.

Anogenital warts (condylomata acuminata) are the most common HPV lesions presented in men, however, during the last decade the other HPV-associated exaggerated lesions such as condylomata plana, penile, scrotal, and anal intraepithelial neoplasias, as well as the penile, tonsillar and oropharyngeal cancer have been studied a little bit more extensively. The "banality" of anogenital warts should not be underestimated providing that the high risk HPV DNA 16 and 18 can be isolated (PCR) from "benign" HPV-associated genital lesions in 10-20% of patients, i.e. more than it is usually expected. On the other hand, the presence and the recalcitrant course of HPV DNA 6 and 11 associated diseases represent a significant physical and psychological problem for both men and women.

Ultimately, within the spectrum of therapeutic options for condylomata, no method is really superior to others; recurrences occurred in 30-70% of cases. However, the proactive sequential treatment representing the combination of the ablative and immunomodulatory treatment (imiquimod, sinecatechins) might be considered as treatment of choice today. A prophylactic vaccine that targets these types should thus substantially reduce the burden of HPV-associated clinical diseases. Managing both partners is necessary in order to eliminate the virus in the population. Approaches to this include prophylactic vaccines such as nonavalent (9-v) HPV vaccine for both men and women. The HPV-induced lesions get quite often misdiagnosed unless managed by the skilled professional. It can be thus concluded that the STIs represent a significant dermato-venereological issue, and the dermatovenereologists should definitely be the part of the STIs programme team.

References

1. C. O'Mahony, M. Gomberg, M. Skerlev et al. Position statement for the diagnosis and management of anogenital warts. JEADV 2019 Jun;33(6):1006-1019.
2. Pham VT, Adjei Boakye E, Simpson MC, et al. Human Papillomavirus-Associated Sexual Risks Among High School Students in the U.S.: Does Sexual Orientation Play a Role? Arch Sex Behav. 2021;10.1007/s10508-021-02083-9.
3. Gaisa, M., Deshmukh, A., Sigel, K., & Liu, Y. (2025). 2024 Anal cancer screening guidelines: Analysis of clinical performance and use of high-resolution anoscopy in a large cohort of persons with human immunodeficiency virus. Clinical Infectious Diseases 2025.
   https://doi.org/10.1093/cid/ciaf052

Selected Abstracts

SA06 Breast cancer clonal dynamics under Aromatase inhibition treatment, supported by single-cell DNA sequencing

Nicolas Hadjittoouli [1], Kathleen Curran [2], Alfonso Bueno Orivio [3], Carles Garcia-Cabrera [2], James Coleman [3], Costas Pitris [1]

Denise G. O'Mahony [1,2,3*], Tom Lesluyes [4 *], Ina S. Brorson [1,2], Patrik Vernhoff [1,2], Ksenia Sokolova [5,6], Miriam Ragle Aure[1,2], Grethe G.Alnæs[1,2], Rebecca Mae Hoøen[1,2], Arvind Y.M. Sundaram[1], Bjørn-Erik Bertelsen[7], Chandra Theesfeld [5,8], Stephanie B.Geisler [9], Torill Sauer [10,11], Nazli Bahrami [9,11,13], Rahul Parulkar [14], Matthew Fittall [15], Andliena Tahiri[16], Torben Lüders [2,16], Olga Troyanskaya [5,6,8,17], Charles Vaske[18#], Peter Van Loo[4,19,20#], Jürgen Geisler[2,9#], Vessela N. Kristensen[1,2#]

[1] Department of Medical Genetics, Oslo University Hospital, Oslo, Norway.
[2] Institute of Clinical Medicine, Faculty of Medicine, University of Oslo, Oslo Norway.
[3] Department of Biostatistics, the Cyprus Institute of Neurology and Genetics, Nicosia, Cyprus.
[4] Cancer Genomics Laboratory, Francis Crick Institute, London, UK.
[5] Princeton Precision Health, Princeton, New Jersey USA.
[6] Center for Computational Biology, Flatiron Institute, New York, USA.
[7] Department of Medical Biochemistry and Pharmacology, Haukeland University Hospital, Bergen, Norway.
[8] Lewis-Sigler Institute for Integrative Genomics, Princeton University, Princeton, New Jersey, USA.
[9] Department of Oncology, Akershus University Hospital, Lørenskog, Norway.
[10] Department of Pathology, Akershus University Hospital, Lørenskog, Norway.
[11] Translational Cancer Research Group, Akershus University Hospital, Lørenskog, Norway.
[12] Institute of Clinical Medicine, Campus AHUS, University of Oslo, Norway.
[13] Department of Breast & Endocrine Surgery, Akershus University Hospital, Lørenskog, Norway.
[14] NantHealth, Culver City, CA.
[15] Cancer Services, The Royal Marsden NHS Foundation Trust, London, UK.
[16] Department of Clinical Molecular Biology (EpiGen), Akershus University Hospital, Lørenskog, Norway.
[17] Department of Computer Science, Princeton University, Princeton, New Jersey, USA.
[18] NantOmics, LLC, Santa Cruz, CA, United States.
[19] Department of Genetics, The University of Texas MD Anderson Cancer Center, Houston, TX, USA.
[20] Department of Genomic Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX, USA.

*Equally contributed
#Shared corresponding and last authors

Abstract

Background: Tumour evolution enables cancers to adapt and survive under therapeutic pressure through selection of subclonal populations. Aromatase inhibitors (AIs) are the standard endocrine therapy for postmenopausal ER-positive breast cancer, yet resistance remains a major clinical challenge. We aimed to characterise tumour subclonal evolution during AI therapy and identify pathways and markers associated with AI resistance.

Methods: Twenty-four patients with locally advanced ER-positive breast cancer eligible for neoadjuvant endocrine therapy were enrolled in the randomized, open-label phase-II NeoLetExe clinical trial. Patients received letrozole or exemestane for 2 months, followed by an intra-patient cross-over to the alternative drug for an additional 4 months. Whole-exome sequencing (WES) was performed on biopsies collected at the three timepoints of the trial. Using the WES data, the DPClust pipeline reconstructed the tumour subclones across timepoints. Single-cell DNA sequencing from matched tumour samples was also performed using the Tapestri platform to validate the subclones predicted by DPClust. Subclonal variants were functionally annotated to genes by integrating evidence from public data and the deep-learning pipeline ExPectoSC which predicts transcriptional variant effects based on single-cell data. Pathway enrichment analysis was performed using Human Base.

Results: We identified 60 subclones across 11 high-purity samples. Of these 81% were validated using single-cell data. Subclonal resolution reveals that resistance arises within distinct persistent subpopulations of the tumour rather than uniformly distributed across, through multifaceted programs involving proliferation, immune evasion, apoptosis escape, metastasis and invasion. Beyond direct mutational effects, ExPectoSC implicated coordinated microenvironmental reprogramming as a feature of AI resistance, with transcriptional targets overlapping those reported in other endocrine resistance contexts, suggesting shared regulatory mechanisms. We identify 48 actionable genes in treatment-persistent subclones. Three patients (L73, M78, W42) harboured persisting or expanding subclones, annotated to targets of CDK4/6 inhibitors, PIK3CA, AKT1, PTEN, MTOR kinase inhibitors and immune checkpoint inhibitors, suggesting potential alternative treatment strategies to overcome resistance.

Conclusions: AI resistance arises within specific tumour subpopulations. Subclonal profiling identified resistance-associated pathways, variants and genes that may represent targets for alternative FDA-approved treatments. These findings establish subclonal profiling as a framework for identifying therapeutic vulnerabilities in the resistant tumour fractions and support biomarker-driven strategies to intercept resistance before clinical progression.

Selected Abstracts

SA07 BTK Inhibition and TRIM24 in CD5+ Malignant B Cells

Charalampos Xanthopoulos [2], Charlotte McDonald [2], Lisa Crawford [3], Vladimir Teif [4], Helen-Ray Jones [5], Mikhail Spilakov [5], Gael Roue [6], Ken Mills [3], Efterpi Kostareli [1,2]

[1]European University Cyprus, School of Medicine, Frankfurt Campus, Frankfurt, Germany, [2]Wellcome-Wolfson Institute for Experimental Medicine, Queen's University Belfast, Belfast, United Kingdom, [3]Patrick G. Johnston Centre for Cancer Research, Queen's University Belfast, Belfast, United Kingdom, [4]School of Life Sciences, University of Essex, Essex, UK, Functional Gene Control Group, Epigenetics Section, MRC London Institute of Medical Sciences, London, UK, [6]Lymphoma Translational Group, Josep Carreras Leukaemia Research Institute (IJC), 08916 Badalona, Spain

Correpondence: E.Kostareli@euc.ac.cy

Abstract

Background: Bruton's tyrosine kinase (BTK) inhibitors have transformed the treatment of CD5+ B-cell malignancies, including chronic lymphocytic leukaemia (CLL) and mantle cell lymphoma (MCL). Ibrutinib (IB), a first-generation BTK inhibitor, demonstrates substantial clinical efficacy; however, resistance and treatment-related toxicities remain important limitations. Emerging evidence suggests that BTK signalling is closely interconnected with chromatin regulation, yet the epigenetic consequences of BTK inhibition and their potential contribution to therapeutic response remain incompletely understood.

Methods: We investigated the effects of BTK inhibition on the epigenomic landscape of CLL using complementary approaches. H3K27ac ChIP-seq and promoter capture Hi-C (pcHi-C) were performed on matched primary CLL samples before and after one month of IB treatment and integrated with transcriptomic data. CUT&RUN profiling of enhancer-associated H3K4me1 and repressive H3K27me3 histone marks was additionally performed following in vitro IB treatment. Candidate BTKi-responsive genes were functionally characterized in CLL and MCL models using gene-expression analysis, subcellular localization, knockdown and CRISPR-Cas9 knockout approaches, followed by pharmacological targeting.

Results: IB treatment induced extensive chromatin remodelling, characterized by loss of H3K27ac-marked active regulatory regions and alterations in promoter-associated three-dimensional chromatin interactions. Integration of epigenomic and transcriptomic datasets identified BTKi-responsive signatures enriched for pathways involved in immune signalling, leukocyte and cytokine activation, protein interactions and B-cell receptor signalling. Among the candidate genes, TRIM24, encoding a chromatin-associated E3 ubiquitin ligase, displayed prominent IB-dependent regulation. Following IB exposure, the TRIM24 locus acquired a long-range promoter interaction involving a validated enhancer, accompanied by increased **TRIM24** mRNA and protein expression and nuclear accumulation. TRIM24 induction was observed in both CLL and MCL models but was not pronounced following exposure to second- and third-generation BTK inhibitors, suggesting an IB-specific response. Functional depletion of TRIM24 impaired DNA-damage-response mechanisms and sensitized CLL and MCL cells to BTK inhibition. Importantly, two independent TRIM24-targeting approaches combined with IB produced synergistic cytotoxicity and enhanced apoptosis in CLL cells.

Conclusions: BTK inhibition induces substantial remodelling of the regulatory and three-dimensional chromatin landscape of malignant CD5+ B cells. We identify TRIM24 as an IB-responsive epigenetic regulator linking BTK inhibition with DNA-damage-response mechanisms and cellular survival. Targeting TRIM24 enhances the antitumour activity of IB, providing a rationale for combined BTK/TRIM24 inhibition as a potential therapeutic strategy in CD5+ B-cell malignancies.

SA08 Valve-Sparing Aortic Root Replacement: Principles, Surgical Techniques and Clinical Outcomes

Georgios Theodoros Chountis [1], Panagiotis Hountis [2], Ioannis Paralikas [2], Konstantinos Plestis [3]

[1] European University Cyprus, Nicosia, Cyprus, [2] Department of Cardiothoracic Surgery, Naval and Veterans Hospital, Athens, Greece, [3]Department of Cardiothoracic Surgery, Sidney Kimmel Medical College, Thomas Jefferson University, Philadelphia, USA

Abstract

Introduction: Valve-sparing aortic root replacement (VSRR) also known as David procedure, is an established surgical technique to repair aortic root aneurysms and aortic regurgitation, allowing preservation of the native aortic valve. Although it is a technically demanding procedure with a steep learning curve, it has demonstrated excellent long-term outcomes in experienced centers.

Case Reports: We present 4 patients (3 males and 1 female) that we performed VSRR. Three patients had aortic regurgitation and ascending aorta aneurysm. One patient had aortic regurgitation, dissected aneurysm of ascending aorta at initial stage and pectus excavatum. All patients had an ejection fraction of 60 and none had diabetes, coagulation or autoimmune disorders.

Discussion: The patient was placed in supine position for induction of general anesthesia and endotracheal intubation. Median sternotomy was performed followed by longitudinal pericardiotomy to expose the great vessels. In all the cases we used the same cannulation technique involving central arterial cannulation of distal ascending aorta and two-stage venous cannula in the right atrium. Left ventricular vent was placed in the left ventricle. Myocardial protection was achieved initially with antegrade cardioplegia administered through the aortic root and subsequently into the coronary ostia after aortotomy was performed 1cm above the sinotubular junction. Annular sutures were placed, passed and secured through the Dacron graft which was seated around the valve. Commisures were resuspended and the coronary buttons were reimplanted. The distal anastomosis was performed as well as aortic cross-clamp was released and wean from cardiopulmonary bypass. The sternotomy was closed with wires. Operative time ranged from 240min to 400min.

Results: Perioperative saline injection test into the Dacron graft and transthoracic echocardiogram both showed excellent leaflet coaptation. Postoperatively, one patient was complicated by bleeding for which he stayed 3 days in the ICU. The other patients stayed 2-3 days in the ICU. In hospital stay was about 5-7 days.

Conclusion: Multidisciplinary Heart Team approach is essential to assess if a patient is eligible to undergo valve-sparing aortic root replacement. Valve-sparing aortic root replacement can restore the anatomical geometry of the aortic root to achieve favorable long-term outcomes.

Selected Abstracts

SA09 FlyQTA: Machine Learning-Based Qualitative Assessment of Drosophila Midgut Architecture for Anti-aging and Pro-aging Drug Screening

Evripides Soteriou [1], Maria Michail [1], Andria Nicolaou [2], Christina Charilaou [1], Katerina Zorba [1], Constantinos S. Pattichis [2], Athos Antoniades [3], Chrysoula Pitsouli [1]

[1] Department of Biological Sciences, University of Cyprus, Nicosia, Cyprus; [2] Department of Computer Science, University of Cyprus, Nicosia, Cyprus; 3Stremble, Limassol, Cyprus

Abstract

Aging is a major risk factor for chronic diseases, while environmental exposures, drugs, and lifestyle factors can accelerate biological aging. There is a growing need for rapid and cost effective approaches to evaluate biological aging and identify compounds that modulate age associated tissue deterioration. Tissue architecture changes continuously, and individuals of the same chronological age can differ widely in biological age. Capturing this variation requires methods that treat aging as a continuum and read biological age directly from tissue structure. FlyQTA (Fly Qualitative Tissue Assessment) is a framework for developing a biological clock for the Drosophila midgut, a tissue whose architecture changes markedly over the lifespan and whose decline is closely linked to organismal health. We generated confocal images of ~500 dissected midguts sampled across the adult lifespan at six timepoints. We then extracted features for each image using Cell-DINO, a self-supervised vision transformer pretrained on cell images. Image features were used to define distinct tissue states, from which each gut is represented as a quantitative tissue profile. Diffusion pseudotime then placed individual guts along a continuous trajectory without access to chronological age, while regression models trained on chronological age or pseudotime generated biological age clocks. Deviations from same-age peers provide measures of biological age acceleration or deceleration. Preliminary analysis revealed progressive restructuring of tissue profiles across age, with distinct profiles between early- and late-life midguts. To minimize overfitting, the final clock configuration was fixed using pre-registered criteria applied to the model-development cohort, while one stain is withheld from the model as an independent readout of tissue aging. The clock will subsequently be evaluated in independent cohorts reared at two temperatures, with survival recorded alongside imaging. This design enables assessment of whether gut architecture predicts mortality beyond chronological age and whether increased temperature alters the trajectory of tissue aging or exposes age dependent vulnerability to stress. By linking a label-free, continuous measure of tissue aging with survival, FlyQTA aims to provide a transferable approach for quantifying biological age from tissue images and investigating the relationship between intestinal architecture and mortality risk across the lifespan. This will enable FLyQTA to have applications in screening of novel anti-aging and pro-aging drugs. Future studies will assess whether this approach can be extended to disease models to improve the quantification of disease severity. Characters (Abstract text): 2714 Source of funding: The Project FlyQTA: Machine Learning Based Qualitative Assessment of Drosophila Midgut Architecture for Anti-aging and Pro- aging Drug Screening, EXCELLENCE/0524/0597 is implemented through the RESTART 2016-2020 Programme for Research, Technological Development and Innovation, under the programme of social cohesion "THALIA 2021 2027", co-funded by the European Union through Research and Innovation Foundation.

SA10 Ten-Year Outcomes After Percutaneous Coronary Intervention of the Left Main Coronary Artery in Patients with Diabetes Mellitus: A Pooled Analysis of Two Randomized Trials

J. Bresha [1], G. Ndrepepa [2], C. Kuna [2], T. Kessler [2,3], I. Hintz [2], P. Justenhoven [2], *, T. Ibrahim [1], S. Kufner [2], H. Schunkert [2,3], M. Valgimigli [4], G. Richardt [5], K.-L. Laugwitz [1,3], S. Cassese [2], A. Kastrati [2,3], J. Wiebe [2,3]

*Presenting author: Paul Justenhoven, Department of Cardiology, Deutsches Herzzentrum München, Lazarettstr. 36, 80636 Munich, Germany — paul.justenhoven@gmx.de

[1] Medizinische Klinik, Klinikum rechts der Isar, Technical University of Munich, Munich, Germany; [2] Department of Cardiology, Deutsches Herzzentrum München, Technical University of Munich, Munich, Germany; [3] DZHK (German Centre for Cardiovascular Research), Partner Site Munich Heart Alliance, Munich, Germany; [4] Division of Cardiology, Cardiocentro Ticino Institute, Ente Ospedaliero Cantonale, Lugano, Switzerland; [5] Department of Cardiology, Asklepios Klinik Bad Oldesloe, Bad Oldesloe, Germany

Abstract

Background and Objectives: Long-term outcomes of patients with left main coronary artery (LMCA) disease and diabetes mellitus (DM) undergoing percutaneous coronary intervention (PCI) are incompletely investigated. The aim of this study was to assess the 10-year clinical outcomes after PCI according to diabetic status and antidiabetic therapy in patients with LMCA disease.

Methods: This study represents a pooled analysis of two randomized trials (n = 1257 patients) on LMCA PCI focused on the prespecified subgroups of diabetic patients. Patients were categorized in groups according to the diabetic status and antidiabetic therapy (oral drugs or insulin therapy). The primary endpoint was 10-year all-cause mortality.

Results: Overall, 361 patients had DM (246 patients on oral antidiabetic drugs and 115 patients on insulin therapy) and 896 patients had no DM. At 10 years, 477 patients died: 291 nondiabetic patients (35.7%), 111 diabetic patients (49.5%) on oral antidiabetic drugs and 75 diabetic patients (70.0%) on insulin therapy (hazard ratio [HR] = 1.57, 95% confidence interval [1.26–1.96]; $p < 0.001$ for diabetic patients on oral antidiabetic drugs vs. nondiabetic patients; HR = 2.80 [2.17–3.61]; $p < 0.001$ for diabetic patients on insulin therapy vs. nondiabetic patients; HR = 1.78 [1.33–2.39]; $p < 0.001$ for diabetic patients on insulin therapy vs. diabetic patients on oral antidiabetic drugs). The 10-year incidence of myocardial infarction was higher in diabetic patients on insulin therapy (10.0%) versus diabetic patients on oral antidiabetic drugs (3.0%). There were no significant differences between the groups regarding the 10-year incidence of definite stent thrombosis, coronary artery bypass graft surgery, repeat PCI or stroke.

Conclusions: In patients with LMCA disease undergoing PCI, DM was associated with a higher 10-year incidence of all-cause mortality than patients without DM, with the worst outcomes observed in diabetic patients on insulin therapy.

Keywords: Diabetes mellitus; left main coronary artery disease; mortality; percutaneous coronary intervention

Selected Abstracts

SA11 Oligodendrocyte-Specific Deletion of HIF1α Leads to Dysfunctional Axonal Mitochondria

Iva D. Tzvetanova [1], Sharlen Moore [2], Andrea Trevisiol [3], Marie-Theres Weil [4], Ting Sun [5], Torben Ruhwedel [6], Christos Nardis [7], Wiebke Möbius [8], Livia de Hoz [9], and Klaus-Armin Nave [10]

[1] School of Medicine, European University Cyprus.
[2] Department of Neurogenetics, Max Planck Institute for Multidisciplinary Sciences, Göttingen, Germany.
[3] Physical Sciences, Sunnybrook Research Institute, Toronto, Ontario, Canada.
[4] Hurvitz Brain Sciences, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada.
[5] Electron Microscopy Unit, Max Planck Institute for Multidisciplinary Sciences, Göttingen, Germany.
[6] Center for Molecular Neurobiology Hamburg (ZMNH), Hamburg, Germany.
[7] Cluster of Excellence Multiscale Bioimaging: From Molecular Machines to Networks of Excitable Cells (MBExC), University of Göttingen, Göttingen, Germany.
[8] Neuroscience Research Center, Charité-Medical University of Berlin, Berlin, Germany.
[9] Department of Physiology, Development and Neuroscience, University of Cambridge, Cambridge, UK.
[10] Department of Neuropathology, Charité-Medical University of Berlin, Berlin, Germany

Abstract

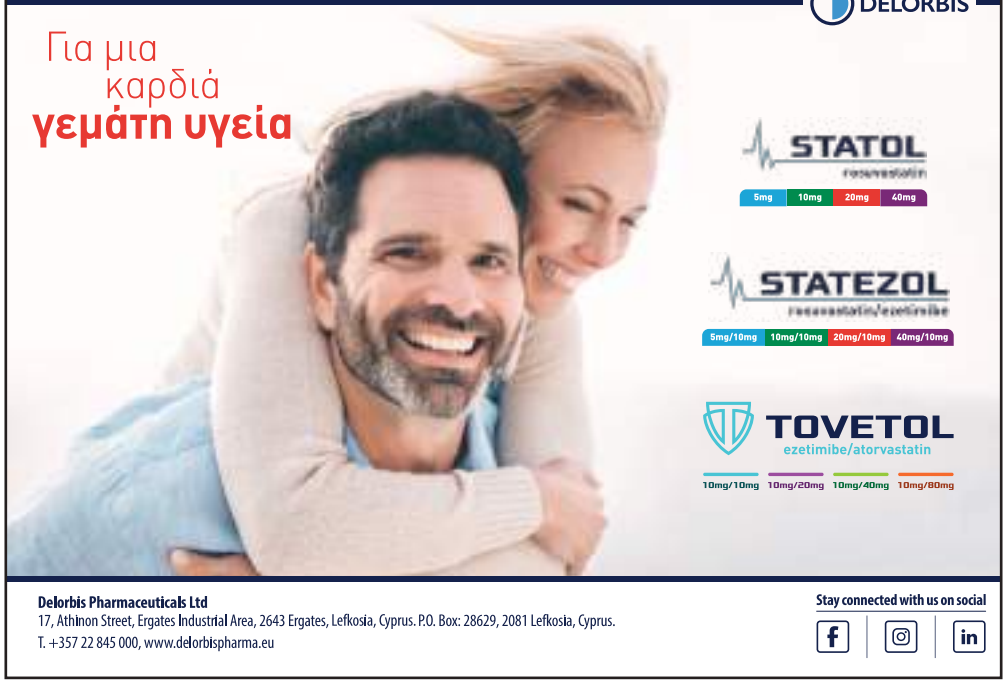
Introduction and Objective: Myelin facilitates fast impulse propagation, but also deprives axons from direct access to extracellular metabolites, necessitating a glial metabolic support of rapidly firing axons. But, what are the mechanisms that regulate oligodendroglial trophic support of axon function? Hypoxia inhibitory factor 1α (HIF1α) promotes the expression of all but two glycolytic enzymes, as well as the cellular import of glucose. We propose that through its many transcriptional targets HIF1α promotes oligodendroglial glycolysis and regulates the trophic support of axons.

Methods: We selectively and inducibly deleted HIF1α from oligodendrocytes in adult Plp-creERT2*HIF1αflox/flox mice (HIF1α cKO).

Results: Oligodendroglial deletion of HIF1α caused decreased expression of glycolytic enzymes within white matter and reduced levels of glucose transporters in myelin, suggesting that HIF1α is necessary for normal rates of glycolysis. By electron microscopy, HIF1α cKO mice showed mild but sustained demyelination. Interestingly, deletion of oligodendroglial HIF1α led to severe morphological perturbations of axonal mitochondria, most likely as sign of 'starvation'. These abnormalities increased with time and eventually led to axonal swellings and neurodegeneration. Axonal pathology preceded neuroinflammation as microgliosis and lymphocyte infiltration were observed only a year after tamoxifen administration. At the functional level, loss of oligodendroglial HIF1α resulted conduction blocks of optic nerves when challenged with either increasing stimulation frequencies or glucose deprivation ex vivo. In vivo, this function was reflected in auditory temporal processing deficits in anaesthetized mice.

Conclusion: We propose that HIF1α is necessary to maintain oligodendroglial glycolysis at the rate required to fully support axonal energy metabolism.

DELORBIS



Delorbis Pharmaceuticals Ltd
17, Athinon Street, Ergates Industrial Area, 2643 Ergates, Lefkosia, Cyprus. P.O. Box: 28629, 2081 Lefkosia, Cyprus.
T. +357 22 845 000, www.delorbispharma.eu

Stay connected with us on social

NOVARTIS

Poster Abstracts

PA01 Biomedical Signal Processing and Control Prediction of Adverse Drug Reactions Using Gene Expression Data and Neural Networks with Synthetic Data Augmentation

Sotirios Kannas [1,2], Ilias Georgakopoulos-Soares [1,3], Apostolos Zaravinos [1,2,*]

[1] Department of Life Sciences, School of Sciences, European University Cyprus, Nicosia, Cyprus; [2] Cancer Genetics, Genomics and Systems Biology Laboratory, Basic and Translational Cancer Research Center (BTCRC), Nicosia, Cyprus; [3] Division of Pharmacology and Toxicology, Dell Paediatric Research Institute, College of Pharmacy, The University of Texas at Austin, Austin, TX 78712, USA

Keywords: Adverse-drug-reactions; gene-expression; neural-networks; XGBoost; pharmacogenomics; pharmacovigilance; data-augmentation; machine-learning; precision medicine.

Abstract

Adverse drug reactions (ADRs) remain a major clinical and public health challenge, contributing significantly to global morbidity and mortality. Advances in pharmacogenomics and large-scale transcriptomic profiling offer new opportunities for predicting ADR risk; however, accurate modeling remains difficult due to high-dimensional gene-expression data and pronounced class imbalance in ADR labels. In this study, we developed machine-learning models that predict ADRs using gene-expression signatures from the LINCS L1000 platform, comprising 978 landmark genes across diverse drug-perturbed human cancer cell lines. We evaluated traditional classifiers and deep learning models, and we addressed class imbalance using Synthetic Data Vault (SDV)–based augmentation. The optimized neural-network model with SDV augmentation achieved the strongest performance (accuracy = 0.86, precision = 0.90, recall = 0.84, F1 = 0.85, ROC-AUC = 0.86) across 232 ADR categories, while an optimized XGBoost model yielded comparable performance with enhanced interpretability. SDV augmentation improved generalization and mitigated imbalance-related degradation observed in baseline models. Together, these findings demonstrate that integrating neural-network architectures with synthetic data augmentation supports robust prediction of ADR-associated transcriptional signatures in cancer cell-line models. Because these signatures derive exclusively from in vitro cancer cell lines, the framework should be regarded as a foundation for future, clinically validated personalized-medicine applications in drug safety rather than a ready-to-deploy clinical tool.

PA02 Predicting skin melanoma progression via LAG-3, TIGIT and HAVCR2

Paraskevi Vryza [1,2], Ilias Georgakopoulos-Soares [1,3], Apostolos Zaravinos [1,2,*]

[1] Department of Life Sciences, School of Sciences, European University Cyprus, Nicosia, Cyprus; [2] Cancer Genetics, Genomics and Systems Biology Laboratory, Basic and Translational Cancer Research Center (BTCRC), Nicosia, Cyprus; [3] Division of Pharmacology and Toxicology, Dell Paediatric Research Institute, College of Pharmacy, The University of Texas at Austin, Austin, TX 78712, USA

Keywords: LAG3; TIGIT; HAVCR2; Skin cutaneous melanoma; Immune checkpoints; Prognostic biomarkers; Gene expression.

Abstract

Skin cutaneous melanoma (SKCM) is a highly aggressive malignancy with increasing global incidence and mortality. While immune checkpoint inhibitors, predominantly PD-1/PD-L1 blockers, have improved outcomes, resistance and immune-related toxicity remain major challenges. Relatlimab, a lymphocyte activation gene-3 (LAG3) inhibitor, in combination with PD-1 inhibitors, has shown clinical promise, while emerging immune regulators such as TIGIT and HAVCR2 are being investigated as potential immunotherapeutic targets. Understanding their roles in SKCM could provide novel therapeutic insights. We investigated the emerging checkpoints LAG3, TIGIT, and HAVCR2 in SKCM using in silico analyses. We analyzed gene expression, immune infiltration, mutational profiles, and methylation patterns using bioinformatic tools, including TIMER, CCLE, Maftools, and UALCAN. Protein expression data were obtained from the Human Protein Atlas, and survival analyses were conducted using Kaplan–Meier plots and Cox regression. Additional molecular and prognostic assessments were performed using MethSurv, Sangerbox, and TISIDB. LAG3, TIGIT, and HAVCR2 were significantly upregulated in SKCM, with higher expression in metastatic compared with primary tumors and associated with improved cumulative survival. Their high expression correlated with increased immune infiltration, particularly by T cells and macrophages, and higher ImmuneScore and StromalScore. Epigenetic regulation through promoter hypermethylation was associated with reduced expression of these genes, suggesting potential immune modulatory mechanisms. Our findings indicate that LAG3, TIGIT, and HAVCR2 may serve as prognostic biomarkers and immunotherapeutic targets in skin melanoma, warranting further investigation. Their roles in immune regulation and tumor progression underscore their relevance in shaping the tumor microenvironment. Future studies should explore their therapeutic potential, particularly in combination with existing immune checkpoint inhibitors, to enhance treatment efficacy. High expression was associated with improved survival; after adjustment for age, AJCC staging, ImmuneScore, and StromalScore, LAG3 and TIGIT showed independent prognostic value, whereas HAVCR2 did not remain significant after FDR correction. Immune stratified analyses showed that prognostic associations were strongest in immune-high tumors.

PA03 30-Day Outcomes of Transcatheter Aortic Valve Implantation in Bicuspid Valves from Nicosia General Hospital TAVI registry

Constantinos Antoniades [1], Georgia Karmioti [1], Nicolaos Eteocleous [1], Ioannis Zittis [1], Kimon Myrianthopoulos [1], Andreas Mitsis [1], Christos Eftychiou [1]

[1] Cardiology Department, Nicosia General Hospital, Nicosia, Cyprus

Introduction: Bicuspid aortic valve (BAV) anatomy has historically represented a challenging substrate for transcatheter aortic valve implantation (TAVI) due to asymmetric calcification, elliptical annular geometry, and concerns regarding device expansion and durability. Although TAVI outcomes in BAV have improved substantially, data regarding hemodynamic performance remain limited. This study aimed to evaluate the 30-day clinical and hemodynamic outcomes of TAVI in patients with severe bicuspid aortic stenosis and to compare post-procedural transvalvular gradients between self-expanding and balloon-expandable valves.

Methods: We conducted a retrospective analysis of 44 consecutive patients with severe symptomatic bicuspid aortic stenosis who underwent transfemoral TAVI at a tertiary referral center. Valve selection was at operator discretion based, with balloon-expandable valves implanted in 72.7% of cases and self-expanding valves in 27.3%. Baseline clinical characteristics, procedural variables, echocardiographic findings, and 30-day adverse events were collected (Table 1). Clinical outcomes were assessed according to Valve Academic Research Consortium-3 (VARC-3) definitions where applicable. Post-procedural mean transvalvular gradients were compared between valve types using independent-samples t-tests.

Results: The mean age was 78.4±7.0 years, and 63.6% of patients were male. Relevant comorbidities included heart failure (15.9%), atrial fibrillation (36.4%), diabetes mellitus (38.6%), previous percutaneous coronary intervention (31.8%), and prior coronary artery bypass grafting (13.6%). Self-expanding valves were preferentially implanted in patients with larger annular dimensions (Table 2). Overall hemodynamic performance was excellent, with low residual gradients following TAVI. Notably, self-expanding valves demonstrated significantly lower post-procedural transvalvular gradients compared with balloon-expandable valves (Table 2). At 30 days, clinical outcomes were highly favorable, with no all-cause mortality, cardiac mortality, disabling stroke, major vascular complications or major adverse cardiovascular events (MACE). Minor vascular complications occurred in 13.6% of patients, while new permanent pacemaker implantation was required in 4.5%.

Conclusions: Transfemoral TAVI in selected patients with bicuspid aortic valve stenosis demonstrated excellent 30-day safety, with zero mortality and zero MACE. Despite the predominant use of balloon-expandable valves, self-expanding valves achieved superior hemodynamic performance, with significantly lower post-procedural transvalvular gradients, supporting their selective use in anatomically suitable bicuspid valves. Larger multicenter studies are warranted to confirm these findings and further define the optimal valve selection strategy in this challenging population.

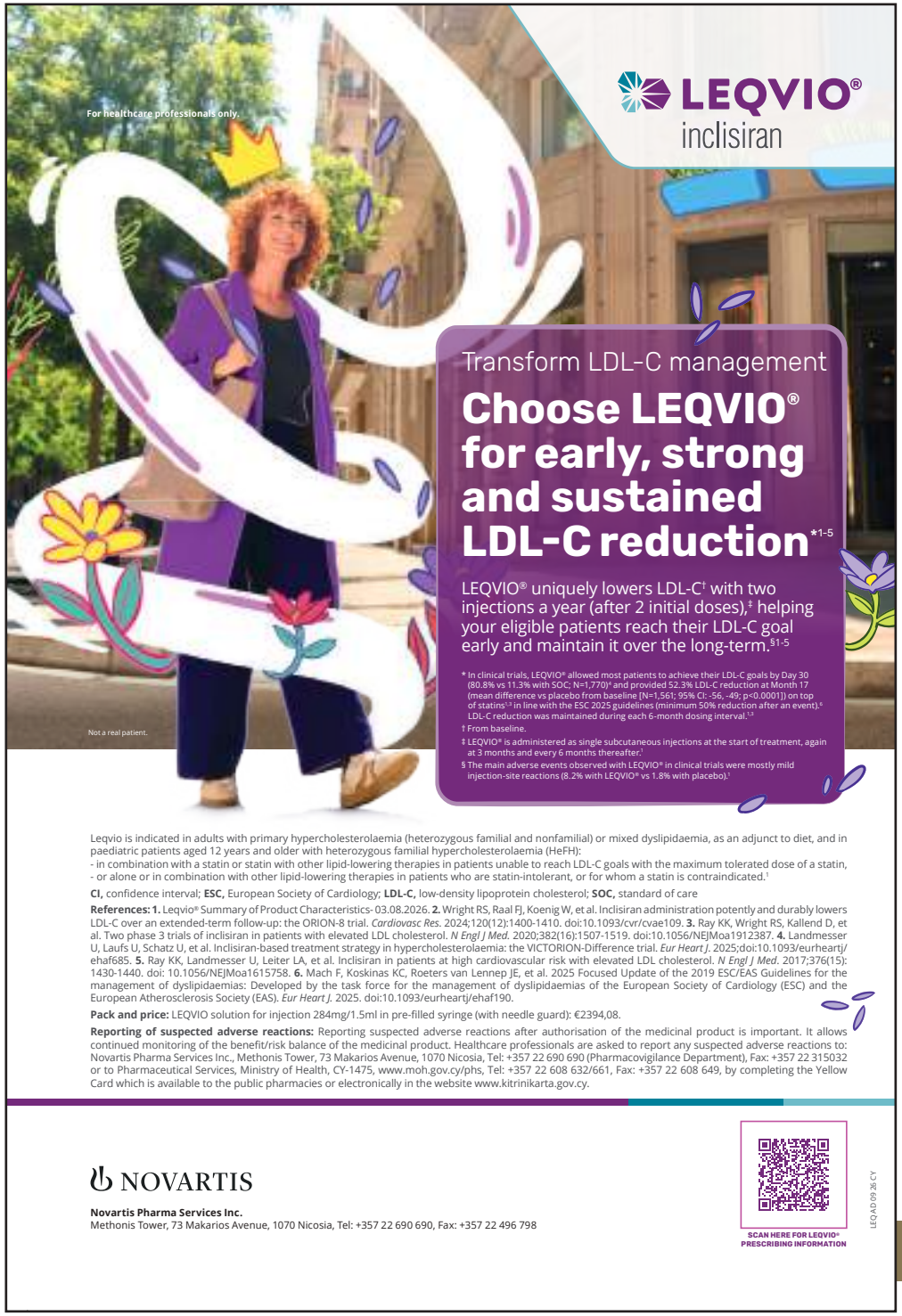
Table 1. Patients' Characteristics

Patients' Characteristics (n=44 patients)	
Age	78.4±7.0 (52-90)
Male sex	63.6% (28)
Heart failure	15.9% (7)
CABG	13.6% (6)
Previous PCI	31.8% (14)
Permanent Pacemaker	9.1% (4)
Atrial Fibrillation	36.4% (16)
Previous Stroke	6.8% (3)
Peripheral Vascular Disease	15.9% (7)
Pulmonary Hypertension	13.6% (6)
Chronic Lung Disease	27.3% (12)
Chronic Kidney Disease	27.3% (12)
Diabetes Mellitus	38.6% (17)
History of Chest Radiation	4.5% (2)
Porcelain Aorta	13.6% (6)
Euroscore II category	
• low riski • Intermediate risk • High risk	43.2%(19) 40.9% (18) 15.9% (7)
STS category	
• low riski • Intermediate risk • High risk	47.7% (21) 40.9% (18) 11.4% (5)

Poster Abstracts

Table 2 Periprocedural data for Bicuspid Valve Cases

Parameter	Sapien 3 (32, 72.7%)	Evolut (12, 27.3%)	P value
AV area	525.7±110.0mm ^{2}	389.1± 61.7mm ^{2}	p<0.001
AV diameter	25.1±2.8mm	22.2±1.8mm	p<0.001
AV perimeter	82.3±7.8mm	69.8±5.5mm	p<0.001
Pre peak AV gr	69.3±22.2mmHg	66.4±27.3mmHg	p=0.783
PPre mean AV gr	40.9±12.8mmHg	38.8±16.4mmHg	p=0.743
Post peak AV gr	20.2±12.5mmHg	10.5±4.0mmHg	p<0.001
Post mean AV gr	10.0± 5.1mmHg)	5.6±2.0mmHg	p<0.001
Contrast volume	168.9±56.9ml	198.3±89.6ml	p=0.306
Predilatation	(27) 84.4%	(6) 50%	p=0.045
Postdilatation	(5) 15.6%	(3) 25.0%	p=0.663



Leqvio is indicated in adults with primary hypercholesterolaemia (heterozygous familial and nonfamilial) or mixed dyslipidaemia, as an adjunct to diet, and in paediatric patients aged 12 years and older with heterozygous familial hypercholesterolaemia (HeFH):
- in combination with a statin or statin with other lipid-lowering therapies in patients unable to reach LDL-C goals with the maximum tolerated dose of a statin,
- or alone or in combination with other lipid-lowering therapies in patients who are statin-intolerant, or for whom a statin is contraindicated.[1]

CI, confidence interval; **ESC**, European Society of Cardiology; **LDL-C**, low-density lipoprotein cholesterol; **SOC**, standard of care

References: 1. Leqvio® Summary of Product Characteristics- 03.08.2026. **2.** Wright RS, Raal FJ, Koenig W, et al. Inclisiran administration potently and durably lowers LDL-C over an extended-term follow-up: the ORION-8 trial. *Cardiovasc Res.* 2024;120(12):1400-1410. doi:10.1093/cvr/cvae109. **3.** Ray KK, Wright RS, Kallend D, et al. Two phase 3 trials of inclisiran in patients with elevated LDL cholesterol. *N Engl J Med.* 2020;382(16):1507-1519. doi:10.1056/NEJMoa1912387. **4.** Landmesser U, Laufs U, Schatz U, et al. Inclisiran-based treatment strategy in hypercholesterolaemia: the VICTORION-Difference trial. *Eur Heart J.* 2025;doi:10.1093/eurheartj/ehaf685. **5.** Ray KK, Landmesser U, Leiter LA, et al. Inclisiran in patients at high cardiovascular risk with elevated LDL cholesterol. *N Engl J Med.* 2017;376(15):1430-1440. doi: 10.1056/NEJMoa1615758. **6.** Mach F, Koskinas KC, Roeters van Lennep JE, et al. 2025 Focused Update of the 2019 ESC/EAS Guidelines for the management of dyslipidaemias: Developed by the task force for the management of dyslipidaemias of the European Society of Cardiology (ESC) and the European Atherosclerosis Society (EAS). *Eur Heart J.* 2025. doi:10.1093/eurheartj/ehaf190.

Pack and price: LEQVIO solution for injection 284mg/1.5ml in pre-filled syringe (with needle guard): €2394,08.

Reporting of suspected adverse reactions: Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions to: Novartis Pharma Services Inc., Methonis Tower, 73 Makarios Avenue, 1070 Nicosia, Tel: +357 22 690 690 (Pharmacovigilance Department), Fax: +357 22 315032 or to Pharmaceutical Services, Ministry of Health, CY-1475, www.moh.gov.cy/phs, Tel: +357 22 608 632/661, Fax: +357 22 608 649, by completing the Yellow Card which is available to the public pharmacies or electronically in the website www.kitrinikarta.gov.cy.

NOVARTIS

Novartis Pharma Services Inc.
Methonis Tower, 73 Makarios Avenue, 1070 Nicosia, Tel: +357 22 690 690, Fax: +357 22 496 798

SCAN HERE FOR LEQVIO® PRESCRIBING INFORMATION

LEQ AD 09.26 CY

PA04 30 day Outcomes of Transfemoral Transcatheter Aortic Valve Implantation (TAVI)

Constantinos Antoniades [1], Georgia Karmioti [1], Nicolaos Eteocleous [1], Ioannis Zittis [1], Kimon Myrianthopoulos [1], Andreas Mitsis [1], Christos Eftychiou [1]

[1] Cardiology Department, Nicosia General Hospital, Nicosia, Cyprus

Introduction: Transfemoral Transcatheter Aortic Valve Implantation (TF-TAVI) has become the standard of care for patients with severe symptomatic aortic stenosis across a broad spectrum of surgical risk profiles. Real-world data from high-volume centers remain essential for evaluating procedural performance, safety, and clinical outcomes. We report the 30-day outcomes of a large single-centre cohort, reflecting more than a decade of practice.

Methods: We conducted a retrospective analysis of 969 consecutive patients who underwent TF-TAVI at Nicosia General Hospital between 2015 and June 2026. Baseline demographic and clinical characteristics, laboratory parameters, pre-procedural computed tomography transcatheter aortic valve implantation (CT-TAVI) measurements, echocardiographic, and electrocardiographic (ECG) findings were prospectively collected (Table 1). Procedural variables and 30-day clinical outcomes were subsequently recorded and analyzed (Table 2). Major adverse cardiovascular events (MACE) were defined as the composite of cardiovascular death, disabling stroke, and/or major vascular complications. Clinical outcomes were assessed according to contemporary standardized definitions.

Results: The study population had a mean age of 79.4 ± 6.6 years, and 51.2% were male. Significant comorbidity burden was observed, including chronic kidney disease (27.3%), diabetes mellitus (37.7%), and atrial fibrillation (30.5%). The mean EuroSCORE II and Society of Thoracic Surgeons (STS) predicted risk scores were 5.6 ± 5.2% and 5.3 ± 4.5%, respectively. Balloon-expandable Sapien 3 valves were implanted in 71.3% of procedures, while conscious sedation was employed in 89.3% (Table 2). At 30 days, the incidence of MACE was 2.8%. All-cause mortality was 2.0%, cardiovascular mortality 1.2%, stroke 1.7%, and disabling stroke 0.8%. Major vascular complications occurred in 1.9% of patients, while new permanent pacemaker implantation was required in 10.4%. Post-procedural valve haemodynamic performance was excellent, with mean transvalvular gradient of 8.2 ± 4.4 mmHg (Table 2)

Conclusion: In this large, real-world, single-center cohort, TF-TAVI demonstrated outstanding short-term safety and efficacy, with very low rates of mortality, disabling stroke, and major vascular complications. These findings highlight the effectiveness of a established, high-volume TAVI program and confirm outcomes that are consistent contemporary international standards.

Table 1. Patients' Characteristics, Baseline echocardiographic, CT, Blood tests and ECG data

Patients' Characteristics (n=969)		
Age	79.4+/-6	52-96
Male sex	496	51.2%
Weight	75.7+/-14.8	40-170
Height	1.6+/-0.1	140-192
Heart failure	165	17.0%
Previous Myocardial Infarction	90	9.3%
CABG	145	15.0%
Previous PCI	322	33.2%
Permanent Pacemaker	81	8.4%
Atrial Fibrillation (history of permanent, persistent or paroxysmal atrial fibrillation)	296	30.5%
Bicuspid Aortic Valve	42	4.3%
Bioprosthetic Aortic Valve	34	3.5%
Previous Stroke	64	6.6%
Carotid Artery Disease	51	5.3%
Peripheral Vascular Disease	131	13.5%
Pulmonary Hypertension	168	17.3%
Chronic Lung Disease	219	22.6%
Chronic Kidney Disease	265	27.3%
Diabetes Mellitus	365	37.7%
Smoking	60	6.2%
Hypertension	726	74.9%
Dyslipidemia	620	64.0%
Malignancy	149	15.4%
History of Chest Radiation	43	4.4%
Porcelain Aorta	98	10.1%
Euroscore II score-%	5.6+/-5.2	0.7-47.2

Euroscore II category		
• low riski	483	49.8%
• Intermediate risk	289	33.8%
• High risk	168	17.3%
STS score-%	5.3+/-4.5	0.7-45.2
STS category		
• low riski	466	48.1%
• Intermediate risk	328	33.8%
• High risk	168	17.3%
Baseline echocardiographic / CT		
Ejection Fraction (EF)-%	55.2+/-9.7	20-75
Right Ventricle Systolic Pressure (RVSP)-mmHg	37.2+/-13.6	13-110
Peak Aortic Valve gradient-mmHg	66.5+/-23.1	0-180
Mean Aortic Valve gradient-mmHg	39.3+/-14.8	0-124
LV-Aorta pullback gradient-mmHg	51.9+/-24.3	0-220
AV Annular Area on CT-mm^2	426.7+/-85.6	188-800
AV annulus diameter on CT-mm	22.9+/-2.3	17-31
AV annulus perimeter on CT-mm	73.9+/-7.8	23-105
Baseline Blood Tests		
Hemoglobulin-g/dL	11.9+/-1.7	7.0-17.6
Creatinine-mg/dL	1.3+/-1.3	0.3-10.4
ECG at presentation		
Sinus Rhythm	748	77.2%
Atrial Fibrillation	157	16.2%
Pacing Rhythm	58	6.0%
First degree AV block	114	11.8%
Left Bundle Branch Block	105	10.8%
Right Bundle Branch Block	134	13.8%

(Number of patients) %
Plus–minus values are means ±standard deviation and the range of values is in brackets
The BMI is the weight in kilograms divided by the square of the height in meters

Table 2. Procedural data and Periprocedural and 30-day Outcomes

Data	Number	Range/%
Procedural data		
Edwards Lifesciences Sapien 3 valve	691	71.3%
Medtronic CoreValve Evolut R/Pro/Pro+/FX valve	182	18.8%
Boston Acurate Neo2 or Prime valve	61	6.3%
Abbot Navitor valve	35	3.6%
Valve in Valve	34	3.5%
Bicuspid Valves	42	4.3%
Conscious Sedation	865	89.3%
Vascular Closure with Proglide	838	86.5%
Vascular Closure with Manta	114	11.8%
Predilatation	451	46.5%
Postdilatation	120	12.4%
Stroke Embolic Protection Device (Sentinel)	4	0.4%
Contrast volume (ml)	159.9+/-59.6	30-500
Periprocedural and 30-day Outcomes		
MACE	27	2.8%
All-cause death	19	2.0%
Cardiovascular death	12	1.2%
Stroke	16	1.7%
Disabling stroke	8	0.8%
Vascular Complications	74	7.7%
Major Vascular Complications	18	1.9%
Minor Vascular Complications	56	5.8%
Periprocedural Vascular Surgery	36	3.7%
New Pacemaker Implantation	101	10.4%
Mild Aortic Regurgitation (AR)	127	13.1%
More than mild AR	6	0.6%
Periprocedural bleeding	24	2.5%
Periprocedural transfusions	68	7%
Post Peak Aortic Valve gradient-mmHg	15.7+/-8.3mmHg	4.0-69.0mmHg
Post Mean Aortic Valve gradient-mmHg	8.2+/-4.4mmHg	2.0-33.0mmHg

Number of patients) %
Plus–minus values are means ±standard deviation and the range of values is in brackets
MACE: Major Adverse Cardiovascular Events are defined as cardiovascular death, disabling stroke, and/or major vascular complications (VC)

Poster Abstracts

PA05 The impact of PGT-M on the prevention of β-thalassaemia in Cyprus

Antri Florentia Romanou[1], George Christopoulos[1], Stefania Byrou[1], Thessalia Papasavva[1]*, Carsten W. Lederer[1]*

[1]Department of Blood Disorder Genetics & Thalassemia, The Cyprus Institute of Neurology & Genetics, Nicosia, Cyprus

Keywords: PGT-M; prenatal diagnosis; prevention; β-thalassaemia

Introduction: Cyprus has one of the highest β-thalassaemia carrier frequencies worldwide, at approximately 12%. In response, the National Thalassaemia Prevention Programme was established in 1978, based on premarital screening and prenatal diagnosis (PND). Preimplantation genetic testing for monogenic disorders (PGT-M) for β-thalassaemia was introduced in 2004 as an alternative reproductive option for at-risk couples. This study evaluates its contribution to the national prevention programme through a comparative analysis of 22 years of PND and PGT-M activity.

Materials and methods: Data were collected for Cypriot couples at reproductive risk of β-thalassaemia who underwent PND or PGT-M between 2004 and 2025, inclusive. The dataset comprised 2,301 PND and 553 PGT-M cycles, encompassing approximately 1,856 blastomere and 1,940 blastocyst trophectoderm biopsies. Single-blastomere biopsy was initially used exclusively. Following its introduction in 2014, trophectoderm biopsy progressively became the predominant approach.

Both PND and PGT-M combined direct detection of pathogenic variants in HBB with linkage analysis using six short tandem repeat markers closely linked to the β-globin locus. For CVS samples, direct variant detection and linkage analysis were performed in separate reactions. For PGT-M biopsies, both were incorporated into an initial multiplex reaction, followed by nested reactions for variant detection. Detection methods included in-house allele-specific real-time PCR assays using TaqMan minor groove binder probes, Sanger sequencing, and PCR–restriction fragment length polymorphism analysis.

Results: The number of Cypriot couples seeking reproductive testing for β-thalassaemia remained relatively stable over the study period, with a modest upward trend. Following the introduction of PGT-M, requests for PND progressively declined, while requests for PGT-M increased. In the most recent reporting period, approximately 45% of couples seeking reproductive testing for β-thalassaemia opted for PGT-M. No cases of PGT-M misdiagnosis have been reported to date.

Conclusions: PGT-M has become an increasingly accepted reproductive option for Cypriot couples at risk of β-thalassaemia, partially replacing PND within the national prevention programme. Its growing uptake reflects a substantial shift in reproductive testing preferences and highlights its contribution to reproductive care. By enabling the selection of embryos not affected by β-thalassaemia for transfer, PGT-M offers an alternative to diagnosis during pregnancy. Its integration with assisted reproductive technology also provides a reproductive option for at-risk couples with coexisting fertility difficulties.

Reference: P. Kountouris et al., "The molecular spectrum and distribution of haemoglobinopathies in Cyprus: A 20-year retrospective study," Scientific Reports, vol. 6, article 26371, 2016. doi: 10.1038/srep26371.

PA06 FAIR data gaps and collaboration willingness among hemoglobinopathy research centres

Stella Tamana[1], Kristia Yiangou [2], Kalia Orphanou[1], Sotiroula Chatzimatthaiou[1], Petros Kountouris[1]*, Francesco Cremonesi [3]

[1] Department of Blood Disorder Genetics & Thalassemia, The Cyprus Institute of Neurology & Genetics, Nicosia, Cyprus; [2] Biostatistics Unit, The Cyprus Institute of Neurology and Genetics, Nicosia, Cyprus; [3] EPIONE group, Centre Inria de l'Université Côte d'Azur, Sophia Antipolis, France

Introduction: Haemoglobinopathies, including Sickle Cell Disease and Thalassaemia syndromes, require interoperable, well-annotated data to support multicentre research, outcome monitoring, and equitable access to emerging therapies. However, real-world haemoglobinopathy datasets are often fragmented, inconsistently documented, and poorly aligned with the Findable, Accessible, Interoperable, and Reusable (FAIR) principles. We assessed current data management practices and collaboration readiness across centres in the HELIOS network.

Methods: A cross-sectional web-based survey was conducted from September 2024 to March 2025 within HELIOS Working Group 3. The survey assessed data availability, metadata and ontology use, storage systems, governance practices, standards adoption, prior data reuse, and willingness to participate in centralised or federated multicentre research. Responses were cleaned, de-identified, and analysed descriptively, with selected comparisons by COST Inclusiveness Target Country status.

Results: Forty-four eligible institutional responses from 22 countries were analysed. Core data types were widely available, including laboratory results (34/44), demographics (32/44), and genotype data (30/44), whereas advanced data types such as omics, GWAS, imaging, Fibroscan, and ektacytometry were less consistently available. Data storage practices were heterogeneous: 20 respondents (45%) reported local research data storage, mainly using Excel or REDCap, while 15 (34%) did not, and 9 (20%) were unsure. FAIR readiness remained limited. Only 22 respondents (50%) reported metadata or data dictionaries; none reported public dataset deposition; 9 (20%) used recognised ontologies; and no respondents reported implementing common data models such as OMOP or CDISC; only isolated mentions of HL7 FHIR were observed. Governance gaps were also evident, with only 8 respondents (18%) reporting existing anonymisation or pseudonymisation procedures and 7 (16%) reporting formal data retention policies. Despite these limitations, collaboration readiness was high: 42 respondents (95%) were open to multisite collaboration, 38 (86%) were willing to participate in federated studies, and 30 (68%) supported centralised data-sharing models.

Conclusion: This international HELIOS WG3 survey identifies substantial FAIR-related gaps in hemoglobinopathy data infrastructure, particularly in metadata quality, interoperability standards, governance procedures, and the availability of advanced data. At the same time, the strong preference for federated collaboration indicates a clear opportunity to build privacy-preserving, standards-based research networks. Targeted capacity building, semantic data models, harmonised governance toolkits, and federated infrastructures could help transform currently fragmented datasets into reusable resources for collaborative hemoglobinopathy research.

Poster Abstracts

PA07 A lentiviral gene therapy platform for α^0-thalassemia: vector design and preclinical evaluation

C. Constantinou [1], M. Phylactides [1], P. Patsali [1], P. L. Papasavva [1,] M. Antoniou [2], N. Psatha [3], C.W. Lederer [1]

[1] Blood Disorder Genetics & Thalassemia, The Cyprus Institute of Neurology & Genetics, Cyprus; [2] King's College London, London, UK; [3] Aristotle University of Thessaloniki, Thessaloniki, Greece

Background: Alpha-thalassemia is a prevalent inherited haemoglobinopathy caused by deletions or mutations in the HBA1 and HBA2 genes, resulting in deficient α-globin production and ineffective erythropoiesis. The most severe form, α^0-thalassemia (hydrops fetalis), results from the loss of all four α-globin genes and typically causes intrauterine or early postnatal death. Although intrauterine transfusions can enable survival, affected individuals may require lifelong transfusion support. Beyond allogeneic haematopoietic stem cell transplantation (HSCT), curative treatment options remain limited. Gene therapy development has been hindered by the early onset of the disease and the lack of suitable cellular models.

Materials and Methods: CRISPR/Cas9-mediated editing was used to delete HBA1 and HBA2 in HUDEP-2 erythroid progenitor cells, generating biallelic α^0-thalassemia clones confirmed by gap-PCR and sequencing. To restore α-globin expression, eight GLOBE-based lentiviral vectors (GLOBαL vectors) were engineered by replacing the β-globin coding sequence with HBA2. The constructs incorporated different combinations of α- and β-globin regulatory elements, including an alternative compact erythroid-specific enhancer designed to reduce vector size. The transgene encoded enables discrimination from endogenous haemoglobin by ion-exchange HPLC (IEX-HPLC). Transduced α^0-HUDEP-2 cells were analysed following erythroid differentiation using RT-qPCR, IEX-HPLC and reverse-phase HPLC (RP-HPLC).

Results: α^0-HUDEP-2 clones exhibited markedly reduced α-globin expression and delayed erythroid maturation. GLOBαL vector transduction restored α-globin expression following erythroid differentiation. The HBA transgene was clearly distinguishable from endogenous haemoglobin by IEX-HPLC. At a vector copy number (VCN) of 2, transgene-derived α-globin expression reached levels comparable to those in HUDEP-2 controls at both RNA and protein levels.

Conclusion: An α^0-thalassemia HUDEP-2 model was successfully established and characterised. A panel of eight lentiviral α-globin constructs was developed for therapeutic evaluation and compared. Ongoing studies assess the performance of selected candidates in primary $CD34^+$ cells and α^0-HUDEP-1 models to support further translational development.

PA08 Unexpected Improvement in Chronic Refractory Spinal Pain Following Removal of a Long-Term Intrathecal Drug Delivery Pump: A Case Report

Maria Eirini Kolokythopoulou [1], Myria Constantinou [1,2], Stephanie Agathaggelou [1,2], Periklis Zavridis [1,2]

[1] School of Medicine, European University Cyprus, Nicosia, Cyprus; [2] Cyprus Pain Clinic, Nicosia, Cypruss

Background: Background: Chronic refractory spinal pain can remain difficult to manage despite pharmacological, interventional and rehabilitative treatments. Intrathecal drug delivery may be used for selected patients with persistent pain. This case presents an unexpected reduction in pain following removal of an intrathecal drug delivery pump in a patient with a prolonged history of treatment-resistant spinal pain.

Case Presentation: A 71-year-old man with longstanding lumbar spinal pathology had undergone multiple spinal surgical procedures since 2010. His clinical course was complicated by a postoperative infection requiring removal of the spinal fusion instrumentation. He continued to experience chronic pain affecting multiple sites across the thoracic and lumbar spine, as well as chronic sciatica. Despite long-term treatment with opioid analgesics and antidepressants, interventional pain procedures and physiotherapy, adequate pain relief was not achieved. On 18 May 2020, a permanent intrathecal drug delivery pump was implanted, delivering morphine (750 µg/mL), clonidine and ropivacaine. On 1 September 2026, the pump was removed because of a local infection at the implantation site, treated with amoxicillin/clavulanic acid. Following explantation, an oral regimen comprising modified-release morphine 10 mg twice daily, gabapentin 300 mg twice daily and duloxetine 30 mg once daily was initially prescribed. The patient reported immediate improvement in pain, with the documented intensity decreasing from approximately 5/10 before removal to 1/10 afterwards. This improvement was sustained at subsequent follow-up assessments. He subsequently discontinued oral morphine while continuing gabapentin and duloxetine at the same doses. He reported minimal pain and maintained his usual activities of daily living.

Conclusion: The underlying mechanism remains unclear and a causal relationship between pump removal and pain improvement cannot be established from a single case. The patient remains under clinical follow-up to monitor pain levels, analgesic requirements and the long-term sustainability of the improvement.

PA09 Pulmonary Embolism and an unexplained fall in an older adult: A case report highlighting diagnostic and causal uncertainty

Fanourios Emmanouil Zacharioudakis[1], Zacharias Zacharioudakis[2]

[1] School of Medicine, European University Cyprus, Nicosia, Cyprus; [2] Private Cardiology Practice, Moires, Heraklion, Crete, Greece

Introduction: In older adults, dizziness preceding a fall may signal an underlying medical event rather than an isolated accident. Pulmonary embolism (PE) can present with non-specific symptoms, making recognition particularly challenging when subsequent trauma and surgery provide alternative explanations for clinical deterioration.

Case Report: An 80-year-old woman with hypertension, type 2 diabetes mellitus and obesity, previously independently mobile, developed dizziness on waking and fell, sustaining a right intertrochanteric femoral fracture. Following surgical repair on the day of admission, she developed hypoxaemia within 24 hours, with oxygen saturation falling to 86%. This prompted computed tomography pulmonary angiography (CTPA), which demonstrated pulmonary emboli in a segmental branch of the left upper lobe and peripheral branches of the right lower lobe. Doppler ultrasonography confirmed concomitant right gastrocnemius vein thrombosis. Despite tachycardia (110 beats/min), she remained haemodynamically stable (blood pressure 120/80 mmHg); troponin was negative, and cardiac ultrasonography showed preserved right ventricular systolic function without right-sided chamber dilatation. D-dimer was elevated at 1.5 µg/mL (reference <0.5 µg/mL). Anticoagulation with enoxaparin (80 mg twice daily) was initiated, followed after five days by rivaroxaban 15 mg twice daily for 21 days and then 20 mg once daily for six months. Her clinical condition improved promptly, and she was discharged after one week. Follow-up imaging was arranged, and she subsequently regained the ability to walk with assistance following postoperative rehabilitation.

Discussion: This case highlights the importance of looking beyond the immediate traumatic injury when an older adult presents with unexplained dizziness preceding a fall. The subsequent development of hypoxaemia prompted investigation and revealed PE with concomitant deep vein thrombosis. Although the timing of embolisation remains uncertain, the case underscores the value of integrating the initial history with evolving clinical findings rather than attributing new symptoms solely to trauma or surgery.

PA10 Significant evidence for missense PALB2 variants of uncertain significance by analysing large-scale case-control data

Damianos Michaelides[1], Maria Zanti[1], Joe Dennis[2], Nicholas J. Boddicker[3], Hajime Sasagawa[4], Juha Mehtonen[5], David E. Goldgar[6], Rodos Rodosthenous[5], Yukihide Momozawa[4], Fergus J. Couch[3], Douglas F. Easton[2], Amanda B. Spurdle[7], and Kyriaki Michailidou[1]

[1]Department of Biostatistics, The Cyprus Institute of Neurology and Genetics, Nicosia, CY; [2] Centre for Cancer Genetic Epidemiology, University of Cambridge, Cambridge, UK; [3]Department of Laboratory Medicine and Pathology, Mayo Clinic, Rochester, MN, USA; [4]Laboratory for Genotyping Development, RIKEN Center for Integrative Medical Sciences, Saitama, Japan; [5]Institute for Molecular Medicine Finland, University of Helsinki, Helsinki, Finland; [6]Department of Dermatology, University of Utah, Salt Lake City, UT, USA; [7]Public Health Program, QIMR Berghofer Medical Research Institute, Brisbane, Australia

PALB2 is a well-established breast cancer risk gene, but for most PALB2 rare missense variants found on genetic testing, evidence for or against pathogenicity is not sufficient. To date, only a handful of PALB2 missense variants have enough evidence to be classified as pathogenic, with the majority of being classified as variants of uncertain significance (VUS). As a result, patients and clinicians are left without a clear answer for surveillance or preventive decisions.

We analysed 2,466 PALB2 variants across five large population datasets (UK Biobank, BRIDGES, CARRIERS, BioBank Japan, and FinnGen) forming, to our knowledge, the largest case-control dataset analysed for PALB2, comprising 128,357 female cancer cases and 518,177 female cancer-free controls. Using the case-control likelihood ratio (ccLR) method which considers how often a variant appears in cases versus controls, accounting for age- and gene-specific penetrance, we generated statistical evidence toward pathogenicity or benignity for each variant. The approach was validated against existing ClinVar classifications, showing strong agreement with known pathogenic and benign variants ((sensitivity 86.7%, specificity 93.75%).

Focusing on PALB2 variants that are currently VUS or absent from ClinVar, we found new pathogenic evidence for 16 PALB2 missense variants and 1 frameshift variant that were previously unclassified. Furthermore, we identified benign evidence for most of the remaining VUS in our variants set. Additionally, we compared our pathogenic and benign evidence against an independent functional study in PALB2, and our results had good concordance (88.9% specificity and 66.7% sensitivity for damaging variant detection), giving us confidence that this approach is picking up genuine signal.

The analysis we conducted provides concrete evidence that the analysis of large case-control datasets can contribute significantly to the classification of current VUS in PALB2, offering a route to giving patients clearer information about their cancer risk and clinicians information for better preventative decisions.

PA11 When Recurrence Changes Everything: Bilateral Pulmonary Chordoma Metastases

Afroditi Argyridi [2], Georgios Theodoros Chountis [2], Marina Melegkovits [3], Panagiotis Hountis [1]

[1] Department of Cardiothoracic Surgery of Athens Navals and Veterans Hospital, Athens Greece; [2] European University Cyprus, School of Medicine, Nicosia, Cyprus; 3 European University Cyprus, School of Medicine, Frankfurt, Germany

Background: Pulmonary metastasis from sacrococcygeal primary chordoma is rare. Bilateral disease requiring staged resection is even less commonly reported. We present the case of a 53-year-old woman with bilateral metastatic pulmonary chordoma, managed with staged bilateral resection — a right middle and lower bilobectomy, followed by local excision of a left-sided mass — both completed despite significant intraoperative hemorrhage. Three years later, reoperation for recurrence was complicated by extensive tumor infiltration of the pulmonary artery, resulting in uncontrollable hemorrhage and intraoperative death. This case highlights both the feasibility and substantial vascular risk of staged resection for pulmonary chordoma metastases.

Introduction: Chordomas are rare, locally aggressive tumors arising from remnants of embryonic notochord tissue, most often affect ages between 50 and 70 years old. Distant metastasis is uncommon, and when it occurs, the lung, bone, or brain are most typically involved. Pulmonary metastasis specifically remains rare. Chordomas respond poorly to radiotherapy and chemotherapy, and surgery remains the primary treatment. Few cases describe tumor involving both lungs requiring staged operations. Involvement of major vessels carries significant operative risk. We present a case that illustrates both the feasibility of this approach and the serious vascular risk it can carry.

Case Report: A 53-year-old woman presented with tumors in both lungs, later confirmed as metastatic chordoma. Her past medical history included resection of a large sacrococcygeal tumor 11 years earlier. In April 2016, she underwent right posterolateral thoracotomy with resection of the right middle and lower lobes for a large, hemorrhagic mass (Figure 1), complicated by significant intraoperative hemorrhage; she received 6 units of blood across the operation and subsequent ICU stay. A CT scan taken between operations (Figure 2) confirmed the expected post-surgical space on the right and identified a new, encapsulated mass in the left lung. This was excised via left thoracotomy in September 2016, with a smooth recovery. One year later, the tumor recurred, now extensively invading the left pulmonary artery. During the attempted resection, arterial branches could not be safely repaired, and the patient died intraoperatively.

Discussion: Clear surgical margins are the strongest predictor of whether chordoma will recur, but achieving them becomes much harder when the tumor lies close to major vessels. In case of pulmonary artery infiltration, careful clamping and reconstruction of the vessel can sometimes allow safe resection. Reoperations carry significant risk due to the presence of adhesions. In this patient, both initial operations succeeded despite heavy bleeding, reflecting hypervascularity. On reoperation, scarring from the previous surgery combined with left pulmonary artery invasion prevented safe dissection of the vessel. This resulted in inadvertent tear on the main trunk of the pulmonary artery and massive bleeding. The patient died on the operating table.

Conclusion: Bilateral pulmonary metastatic chordoma carries substantial surgical risk. Staged resection is feasible, but carries significant hazard. Our patient tolerated two staged resections successfully, despite marked tumor hypervascularity during both procedures. Reoperation for recurrence, however, proved far more dangerous. Once the pulmonary artery is involved and dense adhesions from prior surgery are present, the risk of uncontrollable hemorrhage rises sharply. This risk must be weighed carefully against the anticipated benefit of resection. In our case, the patient had no other choice but resection of the mass.

PA12 Sex-Dependent Molecular and Immune Features of Non-Small-Cell Lung Cancer and Their Association with Immune Checkpoint Inhibitor Response

Gregorios-Alexandros Nanis [1], Apostolos Zaravinos [2], Maria-Ioanna Christodoulou [3]

[1] Department of Life Sciences, School of Life and Health Sciences, European University Cyprus, Nicosia 1516, Cyprus; [2] Cancer Genetics, Genomics and Systems Biology Laboratory, Basic and Translational Cancer Research Center (BTCRC), Nicosia 1516, Cyprus; [3] Tumor Immunology and Biomarkers Laboratory, Basic and Translational Cancer Research Center (BTCRC), Nicosia 1516, Cyprus.

Background: Biological sex is an important modifier of cancer biology and immunotherapy response, yet sex-dependent molecular features of non-small-cell lung cancer (NSCLC) and their implications for immune checkpoint inhibitor (ICI) biomarkers remain incompletely characterized. We investigated sex-associated tumor molecular and immune profiles and whether tumor mutational burden (TMB) has different predictive associations in female and male patients.

Methods: We developed a two-model computational framework. Model 1 analyzed 577 TCGA lung adenocarcinoma (TCGA-LUAD) tumors (312 female, 265 male) using differential expression, XGBoost machine learning, Hallmark gene-set enrichment analysis (GSEA), and single-sample GSEA (ssGSEA). Model 2 evaluated 665 ICI-treated patients from four cohorts using sex-stratified Cox regression for progression-free survival (PFS), XGBoost classification of durable clinical benefit (DCB), and SHAP-based interpretation.

Results: An XGBoost classifier including X-chromosome escapee genes distinguished female from male tumors with an AUC of 0.996, while an autosomal classifier after removal of 80 X/Y/mitochondrial genes achieved an AUC of 0.865, supporting extensive sex-dependent autosomal regulation. GSEA identified 16 Hallmark pathways with consistent sex-associated enrichment across three cohorts. ssGSEA demonstrated higher dendritic-cell and CD4+ T-cell signatures in female tumors (adjusted $p=0.011$ and 0.012, respectively). Although the formal TMB×sex interaction did not reach statistical significance ($p=0.058$), complementary analyses revealed distinct patterns: in females, TMB was associated with PFS (HR 0.53, 95% CI 0.36–0.77, $p<0.001$) but showed limited discrimination of DCB (AUC 0.54); in males, TMB showed greater discrimination of DCB (AUC 0.69) but was not significantly associated with PFS (HR 0.91, $p=0.47$). In a small chemo-immunotherapy subgroup (N=32), DCB was 50% in both sexes. A nine-feature composite biomarker yielded a numerically higher AUC than TMB alone (0.66 vs. 0.61), without statistical significance (DeLong $p=0.589$).

Conclusions: These findings provide convergent evidence of sex-dependent molecular and immune organization in NSCLC and suggest that TMB may have sex-dependent clinical associations in patients receiving ICIs. Although the interaction was not formally significant, consistent patterns support further investigation of sex-stratified biomarkers and composite predictive models. Prospective validation in larger cohorts is warranted.

Keywords: Sex differences, Non-small-cell lung cancer (NSCLC), Immune checkpoint inhibitors (ICIs), Tumor mutational burden (TMB), Tumor microenvironment (TME)

PA13 Sex-disparities in the induction of human regulatory B cells (Bregs)

Georgios Gkoumas [1], Alexandros Hatziloizou [1], Anna-Maria Chalepaki [1], Maria Christou [2], Maria Andreou [2], Eleni Christou [2], Maria-Ioanna Christodoulou [1]

[1] Tumor Immunology and Biomarkers Laboratory, Basic and Translational Cancer Research Center (BTCRC), Nicosia 1516, Cyprus; 2Tumor microenvironment, Metastasis and Experimental Therapeutics Laboratory, Basic and Translational Cancer Research Center (BTCRC), Nicosia 1516, Cyprus.

Background: Sex differences in immune responses are ever attracting research interest since they impact on the development and perpetuation of immune-related disorders. Both innate and adaptive immune systems exhibit diverse signatures in males versus females affecting the severity and response to therapy in conditions such as autoimmunity and cancer. Regulatory B cells (Bregs) is a subpopulation of B cells that act via secretion of IL-10 and as lately shown IL-37 [Wang et al, J Autoimmun, 2025], to control inflammation and thus are crucially involved in every situation were the immune homeostasis is compromised. However, their sex-specific functional patterns and implication in human disease have barely been investigated. Aim: To investigate the differential activation and function of human Bregs in men vs women.

Methods: Peripheral blood mononuclear cells (PBMCs) were isolated from total blood samples from age- and sex- matched men and women (n=16, each group), upon their informed consent. The study was approved by the Cyprus National Bioethics Committee (EEBK 2026/42). Breg polarization was achieved by culturing PBMCs in the presence of CpG (3.18 μg/ml) for 24 hours, as previously [Wang et al, J Autoimmun, 2025]. Evaluation of the Breg incidence as well as expression of the immunosuppressive cytokines IL-10 and IL-37, was performed via flow cytometry using appropriate fluorescence-conjugated antibodies. Wilcoxon test for paired samples was applied for statistical analysis, using GraphPad Prism 10.4.2; p-values<0.05 were considered significant.

Results: Upon CpG stimulation, the % incidence of CD19+CD24hiCD38hi Bregs in the total lymphocytes population was 5.6-times increased in women [p=0.0117, median (range): untreated=0.1600 (0.03-3.84) vs. CpG-treated=1.21 (0.26-3.68)], compared to 1.4-times increase observed in men [p=p.001, 0.17 (0-0.83) vs. 0.60 (0.01-2.41), respectively]. The frequency of CD19+CD24hiCD38hi Bregs in the B cell population presented a 7.56-fold increase in women [p=0.0078, untreated=2.69 (0.23-39.86) vs. CpG-treated=15.07 (0.56-44.72)] compared to 3.5-fold increase in men [p=0.001, 3.83 (0.74-20.68) vs. 5.45 (1.18-32.70), respectively]. Interestingly, the incidence of CD19+CD24hiCD38hiIL-37+ Bregs upon CpG treatment is significantly higher in men compared to women (Mann–Whitney $p = 0.048$; mean ± standard error: women = 8.554 ± 3.61, men = 20.83 ± 4.20).

Discussion/Conclusion: These results, although preliminary, indicate a sex-specific distribution of activated Bregs in human peripheral blood. Interestingly, IL-10 and IL-37, both known for their role in Breg function, exhibit differential patterns of expression, with the second presented as sex-independent. Ongoing studies are expected to validate these results, to explore any association with menstrual cycle and any sex-specific manner towards the suppression of effector immune cells, as well as their sex-specific implication in the tumor microenvironment.

Keywords: Sex-differences, Regulatory B cells (Bregs), Interleukin-37 (IL-37), Immune-regulation

PA14 Mortality Risk According to Cardiorespiratory Fitness in Hypertensive Patients with Controlled and Uncontrolled Blood Pressure

A.Grassou [3], P. Kokkinos [2], C. Faselis [2], C. Grassos [1,3], A. Pittaras [1,3]

[1]MEDITON Medical Center, Athens, Greece; 2Veterans Affairs Medical Center and George Washington University Medical Center, Washington, DC; 3European University of Cyprus, Cyprus.

Objective: Epidemiologic evidence supports that cardiorespiratory fitness (CRF) is associated inverse and independently with the mortality risk in hypertensive patients. However, it is not known if this association persists or that the association is robust in hypertensive patients with uncontrolled blood pressure (BP).

Design and Methods: The cohort consisted of 485,584 hypertensives (462,257 men; age 63.2±8.8) and 23,327 women; age 58.0±7.7 years). All completed a symptom-limited exercise treadmill test (ETT) using the Bruce Protocol. We defined three BP groups based on the mean of six BP recordings over 1.8 ±1.8 years: BP1: SBP <140 mm Hg and DBP<90 mm Hg; BP2: SBP 140-159 mm Hg or DBP 90-99 mm Hg; BP3: SBP≥160 mm Hg or DBP ≥100 mm Hg. We also stratified the cohort in quartiles according to peak METs achieved (Q1=Low-fit to Q4=High-fit) based on age-and gender-specific peak METs achieved at the initial ETT. Cox multivariable regression models were used to estimate hazard ratios (HRs) and 95% confidence intervals (CIs) for mortality risk for the three BP groups, across CRF categories. The models were adjusted for age, race, cardiovascular disease, chronic kidney disease, diabetes, smoking and medications.

Results: During the follow-up (median=10.7 years, 5,256,500 person-years of observation), 138,127 died (26.3 events/1,000 person-years of observation). Mortality risk across the CRF categories for each BP group are presented in Table.

		CRF Categories based on MET Achieved			
CRF Categories	**#event (%)**	**Q1**	**Q2**	**Q3**	**Q4**
Cohort (n=485,584)	**137,985 (28.4)**	**1.0**	**0.70 (0.68-0.71)**	**0.50 (0.50-0.52)**	**0.36 (0.35-0.37)**
BP1 (n=258,772)	**65,581 (25.3)**	**1.0**	**0.69 (0.68-0.70)**	**0.50 (0.48-0.51)**	**0.35 (0.34-0.36)**
BP2 (n=190,517)	**58,251 (30.6)**	**1.0**	**0.71 (0.69-0.72)**	**0.53 (0.53-0.54)**	**0.39 (0.38-0.40)**
BP3 (n=36,295)	**14,189 (39.1)**	**1.0**	**0.72 (0.69-0.75)**	**0.53 (0.50-0.55)**	**0.38 (0.36-0.41)**

Conclusions: In hypertensive patients, CRF is inversely and independently associated with the risk of mortality risk regardless of BP status

PA15 Valve-Sparing Aortic Root Replacement: Principles, Surgical Techniques and Clinical Outcomes

Georgios Theodoros Chountis [1], Panagiotis Hountis [2], Ioannis Paralikas [2], Konstantinos Plestis [3]

[1] European University Cyprus, Nicosia, Cyprus, [2] Department of Cardiothoracic Surgery, Naval and Veterans Hospital, Athens, Greece, [3] Department of Cardiothoracic Surgery, Sidney Kimmel Medical College, Thomas Jefferson University, Philadelphia, USA

Introduction: Valve-sparing aortic root replacement (VSRR) also known as David procedure, is an established surgical technique to repair aortic root aneurysms and aortic regurgitation, allowing preservation of the native aortic valve. Although it is a technically demanding procedure with a steep learning curve, it has demonstrated excellent long-term outcomes in experienced centers.

Case Reports: We present 4 patients (3 males and 1 female) that we performed VSRR. Three patients had aortic regurgitation and ascending aorta aneurysm. One patient had aortic regurgitation, dissected aneurysm of ascending aorta at initial stage and pectus excavatum. All patients had an ejection fraction of 60 and none had diabetes, coagulation or autoimmune disorders.

Discussion: The patient was placed in supine position for induction of general anesthesia and endotracheal intubation. Median sternotomy was performed followed by longitudinal pericardiotomy to expose the great vessels. In all the cases we used the same cannulation technique involving central arterial cannulation of distal ascending aorta and two-stage venous cannula in the right atrium. Left ventricular vent was placed in the left ventricle. Myocardial protection was achieved initially with antegrade cardioplegia administered through the aortic root and subsequently into the coronary ostia after aortotomy was performed 1cm above the sinotubular junction. Annular sutures were placed, passed and secured through the Dacron graft which was seated around the valve. Commisures were resuspended and the coronary buttons were reimplanted. The distal anastomosis was performed as well as aortic cross-clamp was released and wean from cardiopulmonary bypass. The sternotomy was closed with wires. Operative time ranged from 240min to 400min.

Results: Perioperative saline injection test into the Dacron graft and transthoracic echocardiogram both showed excellent leaflet coaptation. Postoperatively, one patient was complicated by bleeding for which he stayed 3 days in the ICU. The other patients stayed 2-3 days in the ICU. In hospital stay was about 5-7 days.

Conclusion: Multidisciplinary Heart Team approach is essential to assess if a patient is eligible to undergo valve-sparing aortic root replacement. Valve-sparing aortic root replacement can restore the anatomical geometry of the aortic root to achieve favorable long-term outcomes.

PA16 Evaluation of European Breast Cancer Fine-Mapping in diverse ancestries

Eleni Christou [1], Denise O'Mahony [1], Maria Zanti [1], Kyriaki Michailidou [1]

[1]Department of Biostatistics, The Cyprus Institute of Neurology and Genetics, Nicosia, Cyprus

Genome-wide association studies (GWAS) in breast cancer have identified low-risk susceptibility variants across more than 220 loci. However, due to the linkage disequilibrium (LD) basis of the GWAS study design, hundreds of non-causal variants can appear to be associated with the disease, simply because they are highly correlated with the true-causal variants. Fine-mapping seeks to distinguish true-causal associations from LD correlations and narrow down candidate causal variants (CCVs) in GWAS-associated loci. The largest breast cancer fine-mapping study has refined 150 associated regions based on a European-ancestry cohort. As genomic architecture may differ between populations, fine-mapping analyses should be expanded beyond European-based cohorts to strengthen cross-population evidence. Herein, we aimed to evaluate whether the loci identified from the most established European breast cancer fine-mapping study can be reproduced in independent cohorts and ethnicities, while determining common CCVs across populations. Using summary data from three independent datasets; BioBank Japan (BBJ), FinnGen Biobank, and UK Biobank (UKB) we extracted the 150 European breast cancer risk loci from each dataset. In-sample LD estimates were used for the FinnGen and UKB datasets. Out-of-sample LD estimates for BBJ were calculated using the 1000 Genomes Project reference. Statistical fine-mapping was performed using the Sum of Single Effects with Regression Summary Statistics (SuSiE-RSS) model, based on two approaches: assuming a maximum of 10 credible sets (L) per region, and a multi-L approach (1-5, 8,10,15, 20) per region. Causal variants were identified in 110, 36, and 20 loci in FinnGen, UKB, and BBJ, respectively, using $L = 10$. Applying the multi-L approach, a region-specific L optimum, defined as the L value producing the greatest number of credible sets in each region, increased the number of loci with detectable CCVs to 129, 44, and 23. The results were compared with the European fine-mapping results, with 51 loci containing common CCVs with FinnGen, 40 with UKB, and 12 with BBJ. These results indicate partial reproducibility of European-derived fine-mapping results in independent cohorts. Credible set detection was sensitive to the choice of L, highlighting the need to assess robustness across L values. Discordance with established European results may reflect population differences in LD and allele frequency, as well as technical differences between studies (e.g., power).

PA17 Efficient case–control likelihood ratios for rare variant interpretation across phenotypes

Christian Carrizosa[1], Theodora Nearchou[1], Maria Zanti[1], Damianos Michaelides[1], Michael T. Parsons[2], Douglas F. Easton[3], Amanda B. Spurdle[2], Kyriaki Michailidou[1]

[1]Department of Biostatistics, The Cyprus Institute of Neurology & Genetics, Nicosia, Cyprus; [2] Population Health Program, QIMR Berghofer, Brisbane, Queensland, Australia; [3] Centre for Cancer Genetic Epidemiology, Department of Public Health and Primary Care, University of Cambridge, Cambridge, UK.

Keywords: Likelihood Ratio, Variant Classification, Case–Control Evidence, Scalable Computation, Hereditary Cancer

Background: Rare genetic variants identified through clinical genetic testing often remain classified as variants of uncertain significance (VUS) due to insufficient evidence, complicating patient management. Case–control likelihood ratio (ccLR) analysis can support their interpretation by comparing the likelihood of the observed carrier distribution among cases and controls under two competing hypotheses: that the variant confers a risk similar to that of an average pathogenic variant, or that it is benign. While this approach has proven useful for variant classification in high-risk breast cancer genes, it has not been explored for other phenotypes, such as ovarian cancer; moreover, it is computationally intensive, making it impractical to apply at biobank and exome-wide scale.

Methods: We developed an efficient approximation of the ccLR by decomposing the statistic into per-person contributions computed once, and then applying sparse matrix operations to the genotype data. Further, we show that this approach can also be implemented using the linear scoring functions of PLINK, a standard genetics software package. Using simulations, we validated our approximation's accuracy against the exact method. We then demonstrated its utility for hereditary breast and ovarian cancer by analysing rare variants in BRCA1 and BRCA2 in UK Biobank, comparing the results against ClinVar reference sets. Finally, we applied the approach exome-wide across both phenotypes, providing case–control evidence for many variants that previously had none.

Results: Our approximate ccLR substantially reduced computational requirements: in simulations, it used the same memory to score 500× more variants than the exact method, while maintaining high correlation (>0.99). Using UK Biobank data, we analysed more than 7 million rare variants across ~250,000 women in under 6 hours at a cost of less than £1 on DNAnexus. Among ~80,000 BRCA1 and BRCA2 variants from whole-genome sequencing, over 200 attained strong pathogenic evidence for ovarian cancer (ccLR >18.7), of which fewer than 10% were present in ClinVar (most classified as pathogenic). Notably, 20% of these variants also attained strong benign evidence for breast cancer (ccLR <0.05). Exome-wide, concordance between breast and ovarian cancer ccLR evidence was similarly low (Cohen's κ <0.20 for benign vs. pathogenic), highlighting phenotype-specific variant associations.

Conclusion: We provide a scalable ccLR analysis framework to enable systematic, data-driven variant interpretation using large biobanks. Our findings also show that genetic associations can diverge across phenotypes, suggesting that phenotype-specific approaches may add value to variant classification.

Funding

The project EXCELLENCE/0524/523 is implemented under the programme of social cohesion "THALIA 2021–2027" co-funded by the European Union, through the Research and Innovation Foundation of the Republic of Cyprus.

PA18 Assessing TTRE7631, a Two-Pore Domain Potassium Channel, as a Candidate Drug Target for Trichuris trichiura Infection

Julia Pinheiro Bassani [1,2], Freddie Partridge [1]
[1]School of Life Sciences, University of Westminster, London, United Kingdom; [2] The Cyprus Institute of Neurology and Genetics, Nicosia, Cyprus (present address)

Presenting and corresponding author: Julia Pinheiro Bassani, juliapinheirobassani2000@gmail.com

Background: Trichuris trichiura infects 450 million to 1 billion people, mostly children in low-sanitation regions, causing anaemia, stunted growth and cognitive delay. Benzimidazoles (albendazole, mebendazole) cure only 20 to 40% of infections, and resistance mutations are emerging. Emodepside, which activates the calcium-activated potassium channel SLO-1, achieved ~85% cure in a Phase II trial, versus 17% for albendazole, validating potassium channels as anthelmintic targets. The structurally distinct two-pore domain potassium (K2P) channel family, however, remains unexplored. This study assessed TTRE7631, a putative T. trichiura K2P channel, as a candidate drug target by testing its identity, selectivity, druggability and essentiality.

Methods: TTRE7631 was retrieved from WormBase ParaSite and its domain architecture examined. Protein Basic Local Alignment Search Tool (BLASTp) searches against Caenorhabditis elegans and Homo sapiens were followed by a three-species multiple sequence alignment. An AlphaFold model was trimmed of residues with predicted local distance difference test (pLDDT) scores below 70, and binding pockets were predicted with

PockDrug (5.5 Å ligand proximity; probability above 0.5 considered druggable). The C. elegans orthologue was silenced by bacterial-feeding RNA interference (RNAi), with the L4440 empty vector as negative control (two plates per condition; four days at 23 °C). Second-generation adults were counted in four random regions of interest (ROIs) per plate.

Results: TTRE7631 encodes a 260-residue protein with a potassium channel domain (residues 96–172), a two-pore domain signature (residues 83–205) and three transmembrane helices, confirming K2P identity. The C. elegans orthologue shared 64.38% identity (56% query coverage), supporting its use as a functional model, whereas the closest human homologue shared 42.31% identity (29% coverage). Two pockets in the transmembrane core near the channel pore both reached the maximum druggability probability of 1.0 (standard deviation 0.0), with a volume of 592 $Å^3$, within the 300–1000 $Å^3$ range optimal for small molecules, and 14 lining residues. The pocket-lining region (valine 92 to cysteine 169) lies within the core conserved across all three species. RNAi plates yielded 2.75 and 1.50 adults per ROI versus 6.75 and 6.00 on control plates (means 2.1 versus 6.4), an approximately 67% reduction in surviving adults, without gross morphological defects.

Conclusions: TTRE7631 is a structurally druggable K2P channel that contributes to nematode viability, making it a credible new anthelmintic target and extending potassium channel targeting beyond SLO-1. However, two questions remain: selectivity, as TTRE7631 shares 42% identity with its closest human homologue, and sufficiency, as knockdown reduced but did not eliminate the worm population. Residue-level comparison and docking against the human homologue, and RNAi with more biological replicates, are the next steps.

Keywords: trichuriasis, anthelmintic drug target, two-pore domain potassium channel, druggability, gene knockdown

Funding: This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Ethics: Approved by the University of Westminster Research Ethics Committee (ETH2526-0097).

PA19 A Silent Mass, a Serious Risk: Left Atrial Myxoma

Marina Melegkovits [1], Georgios Theodoros Chountis [2], Afroditi Argyridi [2], Georgios Sotiropoulos [3], Konstantinos Plestis [4], Konstantina Drakopoulou [5], Panagiotis Hountis [3]

[1] European University Cyprus, Frankfurt Branch, School of Medicine, Germany; [2] European University Cyprus, School of Medicine, Cyprus; [3] Department of Cardiothoracic Surgery of Athens Naval and Veterans Hospital, Athens, Greece; [4] Department of Cardiac Surgery, Sidney Kimmel Medical College, Thomas Jefferson University, Philadelphia, USA; [5] Department of Anesthesiology, IASO Athens General Clinic, Athens, Greece

Introduction: Atrial myxomas account for approximately 50% of cardiac tumour cases, suggesting them the most common type of cardiac tumours. They may remain asymptomatic, and are often found incidentally. The mainstay of treatment is surgical excision. A key feature of our case, is the patient's history of coronary artery bypass grafting three years earlier. Due to anticipated presence of adhesions, a right anterolateral thoracotomy incision was planned and performed for surgical excision of the myxoma.

Clinical Consequences: Myxomas can cause physiological damage without being malignant. Several pathologies can arise with the presence of a myxoma in a cardiac chamber related to the size and the exact position of the tumor. Mitral Valve Obstruction is one of the most common life-threatening consequences, along with embolisms, presenting at 40% of cases. Parts of the tumour may be cut off and enter the circulation, causing damage to vital organs such as, the brain. A rare but deadly result is cerebral aneurysm while another uncommon symptom is pre-syncope and symptomatic bradycardia.

Case Report: A male patient with a history of a coronary artery bypass grafting three years before, had his routine echocardiogram. During four chamber view of the heart, a mass was observed positioned in the left atrium of the heart (image 1). The dimensionsε of the tumor were measured and had an area of 2.81cm2. The patient, was later assessed further and was found to have a Left Atrium Diameter (LAD) of 3.67cm and Aortic Valve Calcium Score (AVCS) 1.74cm (image 2). Finally, aortic root diameter (AoRoot) was 2.80cm and the left atrium diameter to aortic root diameter ratio (LA/Ao) was 1.31cm, meaning that compared to the aortic root the left atrium diameter was significantly bigger.

Discussion: Under general anesthesia, a double-lumen endotracheal tube was used to facilitate one-lung ventilation during the procedure. Cardiopulmonary bypass circulation with bicaval venous cannulation and ascending aorta arterial cannulation was established. The heart was approached through a right thoracotomy. The right lung collapsed and the left lung was used to ventilate the patient. The pericardium was excised and the left atrium of the heart was accessed with a cardiotomy. The tumor was directly visualized and excised carefully (image 3). It was measured and had a length of 4cm (image 4). Haemostasis and wean from the extracorporeal circulation (cardiopulmonary bypass) occurred. The postoperative course of the patient was uncomplicated.

Conclusion: Myxomas although benign, they can pose significant life-threatening complications. Surgical removal remains the mainstay of treatment. In our case, we preferred right thoracotomy to avoid the presence of adhesions that could worsen intraoperative clinical outcome.

PA20 Targeting Pancreatic Cancer with PROTAC-BET Nanoformulations: From Drug Delivery to Humanized Preclinical Models

M.S. Andreou*[1,2], E. Christou*[1,2], P. Siafaka [1], C. Neophytou [8], M. Panagi [3], A. Charalambous [3], T. Andreou [3], G. Tsissios [1,] C. Papagregoriou [4], P. Demetriou [4], A. Tzatsos [5], Elisseou [6], M. Papoulas [7], C.M. Neophytou [1,2], F. Mpekris [8], P. Costeas [4], T. Stylianopoulos [3], P. Papageorgis**[1,2]

[1] European University Cyprus Research Centre, Nicosia, Cyprus; [2] Tumor Microenvironment, Metastasis & Experimental Therapeutics Group, Basic and Translational Cancer Research Centre, Life Sciences Department, European University Cyprus, Nicosia, Cyprus; [3] University of Cyprus, Nicosia, Cyprus; [4] Centre for Study of Haematological Malignancies, Nicosia, Cyprus; [5] George Washington University, Washington, USA; [6] Mother and Child Medical Centre, Nicosia, Cyprus; [7] El Greco Medical Centre. Nicosia, Cyprus, 8Cyprus Institute of Neurology and Genetics, Nicosia, Cyprus
*These authors contributed equally to this work
**Corresponding author

Despite significant advances in cancer therapeutics, Pancreatic Ductal Adenocarcinoma (PDAC) remains one of the deadliest cancers, with a five-year survival rate of approximately 13% and limited treatment options. The immunosuppressive tumor microenvironment (TME) of PDAC remains a major obstacle to successful immunotherapeutic approaches. The project aims to develop ultra-small nanoformulations encapsulating PROTAC-BET inhibitors to improve targeted drug delivery, remodel the TME, enhance antitumor immunity, while establishing clinically relevant humanized models to evaluate their potential to improve the efficacy of immunotherapy in human pancreatic cancer. Ultra-small (~30 nm) lipid-polymer hybrid nanoparticles (NPs) and microemulsions (MEs) loaded with dBET6 were successfully developed and optimized. Their size distribution, and colloidal stability were characterized using dynamic light scattering (DLS), while their morphology and ultrasmall dimensions were confirmed by transmission electron microscopy (TEM). Fourier-transform infrared spectroscopy (FT-IR) was used to evaluate their chemical composition and confirm the incorporation of dBET6. Drug-release profiles were assessed using the dialysis-bag membrane method, demonstrating sustained release from the NPs, whereas the MEs exhibited more rapid drug release and prolonged circulation. In vitro cellular uptake as well as in vivo and ex vivo biodistribution studies confirmed efficient intracellular and tumor localization with minimal toxicity, particularly for the NPs. The nanoparticle formulation demonstrated the best balance of tumor accumulation, controlled drug release, and systemic safety, making it the lead candidate approach for further therapeutic evaluation. Additionally, $CD34^+$ hematopoietic stem cells were successfully isolated and enriched from umbilical cord blood with residual $CD3^+$ T-cell contamination below 2% and were injected intrahepatically into neonatal NBSGW mice. This approach generated successfully immune-humanized mouse models exhibiting robust human immune-cell engraftment (>25% $hCD45^+$) and multilineage immune-cell development, establishing a reliable platform for future humanized pancreatic cancer studies. Primary pancreatic tumor samples have also been obtained and are currently being expanded for future orthotopic implantation into these humanized mice. The resulting huPDX models will provide a clinically relevant preclinical platform for evaluating nanoformulations loaded with PROTAC-BET inhibitors and the potential to improve the effectiveness of immunotherapy. Ongoing work aims to evaluate the efficacy of dBET6-loaded NPs to improve immunotherapy using immune checkpoint blockers (ICBs) in huPDX models of PDAC

Acknowledgments

Authors would like to thank the Research and Innovation Foundation (RIF)-Cyprus for financial support. The Project "BETNanolmmuno/0524/0359" is implemented through the «EXCELLENCE» Programme, under the programme of social cohesion "THALIA 2021-2027", co-funded by the European Union through Research and Innovation Foundation.

PA21 Discovery of novel trachea-specific regulators of intestinal inflammation and tumorigenesis in Drosophila

Anastasia Ignatiou [1] and Chrysoula Pitsouli [1]

[1]Anastasia Ignatiou- Postdoctoral Researcher; Chrysoula Pitsouli- Associate Professor, Department of Biology, University of Cyprus

Angiogenesis involves the formation of new blood vessels from pre-existing ones during development and wound healing. Dysregulated angiogenesis is a key feature of inflammatory disease and cancer. Here, we use the powerful genetic fruit fly model Drosophila melanogaster to study remodeling of oxygen-carrying tubes of the adult tracheal system (neotracheogenesis) during intestinal inflammation and cancer progression in vivo, leveraging its molecular and cellular similarities to human neoangiogenesis. To discover trachea-specific genes involved in inflammation-induced intestinal neotracheogenesis, we used Translating Ribosome Affinity Purification (TRAP)-seq to isolate ribosome-bound mRNAs from adult midgut tracheal cells of uninfected flies and flies infected orally with pathogenic Pseudomonas aeruginosa (P.a.). 226 genes were differentially expressed in the trachea upon intestinal P.a. infection, of which 191 had human orthologs. Then, we performed a reverse genetics screen using the Gal4-UAS system, whereby we silenced via UAS-RNAi each of the 191 genes in the fly trachea using the trachea-specific btl-Gal4 driver. Out of 191 crosses, 136 produced viable female offspring, which were tested for intestinal mitosis after pathogenic P.a. infection. The 55 UAS-RNAi strains that did not produce viable offspring due to early lethality were silenced only in adults through btl-Gal4 tub-Gal80ts and were tested after P.a. infection. We found 24 and 14 genes that after being silenced in the trachea with btl-Gal4 and btl-Gal4 tub-Gal80ts, respectively, significantly affected intestinal stem cell mitosis during P.a.-induced regeneration. Follow-up validation experiments narrowed the list to 3 genes (CG13321, CG17715 and CG6484) and 5 genes (Vha55, GstE3, Pomp, VhaPPA1-1 and CCT6) that when silenced in the trachea with btl-Gal4 and btl-Gal4 tub-Gal80ts, respectively, significantly reduced mitosis as well as neotracheogenesis upon infection-induced intestinal regeneration. Currently, we are using state-of-the-art fly genetics to assess the trachea-specific role of these genes in intestinal stem cell-initiated tumour growth. Future experiments will characterize in detail the mechanism of action of 2-3 candidate genes in vivo. This work will lead to the discovery of novel genes involved in neotracheogenesis during inflammation and tumorigenesis in flies and will provide insights for further studies in mammals, which might lead to the development of new cancer therapeutics.

PA22 Hypertension and Type 2 Diabetes Mellitus Evaluation of Awareness and Management Among Adults in Cyprus: A Cross-Sectional Study

Afroditi Argyridi [1], Nikitas Mouroutis [1], Ioanna Ferekidou [1], Anastasis Stephanou [1], Christina Therapontos [1],Demetris Lamnisos [1], Ioannis Patrikios [1], Christina Kousparou [1]

[1]European University Cyprus, 6 Diogenous Str., Egkomi, Diogenous-2404, Egkomi, Nicosia

Background and Objective: This community-based cross-sectional study assessed hypertension and Type 2 Diabetes Mellitus (T2DM) awareness and management, cardiometabolic risk, and related lifestyle factors among adults in Cyprus.

Methods: Blood pressure, capillary glucose and body mass index (BMI) were assessed in 916 adults alongside self-reported lifestyle behaviours, previous diagnosis, medication use and regular monitoring.

Results: Overall, 20.7% met the study definition of hypertension by measurement, 15.1% had obesity and 10.8% had elevated capillary glucose (≥126 mg/dL). Among participants with hypertension by measurement or elevated glucose, only 19.6% and 28.6%, respectively, reported a previous diagnosis. Among participants reporting an established diagnosis, medication use was comparatively high, whereas regular monitoring was less frequent. Increasing age was consistently associated with adverse cardiometabolic indicators and greater odds of hypertension, obesity and elevated glucose, and was also associated with greater disease awareness.

Conclusion: These findings identify a substantial detection and awareness gap within the cardiometabolic care cascade, supporting earlier community-based screening linked to confirmatory assessment and follow-up in Cyprus. Earlier community-based detection may represent an important public health priority in Cyprus, with positive screening findings linked to confirmatory assessment and structured follow-up to support progression from detection to diagnosis and long-term management.

PA23 Investigating the Effects of Phytochemical-induced Cell Death and Senescence for Cancer Treatment

Meryem Sıla Durmaz [1], Anastasis Stephanou [1], Panayiota Christodoulou [1], Charalambos Michaeloudes [1]

[1] Department of Medicine, School of Medicine, European University Cyprus

Introduction: Breast cancer is the most common malignancy in women and a leading cause of cancer-related mortality worldwide [1]. Cisplatin is a widely used chemotherapeutic agent that induces apoptosis in cancer cells but also causes significant toxicity in normal tissues [2,3]. Berberine is a naturally occurring phytochemical that has been reported to have both anticancer and cytoprotective effects [4,5]. Previous studies have shown that berberine can exert antitumor and cytoprotective effects depending on the cellular context [6,7]. However, the molecular mechanisms underlying these effects remain poorly understood.

Aim: This study aims to determine whether berberine can enhance cisplatin-induced cell death in breast cancer cells while protecting normal breast epithelial cells from cytotoxic effects.

Methods: MCF-7 breast cancer and MCF-12F normal breast epithelial cells were cultured in two-dimensional systems. Cell viability was measured using the MTT assay. Apoptosis and necrosis were assessed using Annexin V/propidium iodide staining and quantified by flow cytometry. Cellular senescence was evaluated using senescence-associated β-galactosidase staining. Cells were treated with cisplatin at IC50 concentrations determined for each cell line, with or without berberine (5–60 μM). Monotreatments with cisplatin or berberine were applied for 24 and 48 hours. Combination treatments involved pre-treating cells with berberine for 24 hours, followed by cisplatin treatment for an additional 24 hours.

Results: Cisplatin and berberine reduced cell viability in MCF-7 cells. When combined with cisplatin, berberine further reduced cancer cell viability compared with cisplatin alone. In contrast, in MCF-12F cells, combination treatments did not cause an additional reduction in viability compared with cisplatin alone. Flow cytometry analysis showed increased early and late apoptotic cell populations following combination treatment in MCF-7 cells, whereas no corresponding increase was observed in MCF-12F cells. Senescence associated β-galactosidase staining showed a trend toward increased senescence following treatment with berberine or cisplatin alone in both cell lines. Combination treatment further increased senescence, with a more pronounced effect observed in MCF-7 cells compared with MCF-12F cells.

Conclusion: These findings suggest that berberine may exert different effects in cancerous and normal breast cells when combined with cisplatin. Berberine enhanced cisplatininduced cell death and senescence in MCF-7 cells without increasing cytotoxicity or enhancing senescence in MCF-12F cells. Further studies are needed to understand the underlying molecular mechanisms and evaluate berberine's potential as an adjuvant in breast cancer treatment.

Keywords: Breast cancer, cisplatin, berberine, apoptosis, senescence

PA24 Safety and Efficacy of Direct Oral Anticoagulants Versus Dual Antiplatelet Therapy After Left Atrial Appendage Closure: A Systematic Review and Meta-Analysis of Randomized Controlled Trials

Ali Moradi MD1, Soheil Rahmati BSc2, Sina Khoshniyat BSc3, Naya Said BSc4, Varinder Paul MD4, Amir Nasrollahizadeh MD3, Ali Fatehi Hassanabad MD MSc PhD5

[1]Department of Medicine, HCA Florida Blake Hospital, University of South Florida (USF), Morsani College of Medicine, Bradenton, USA; [2] Tehran Heart Centre, Cardiovascular Diseases Research Institute, Tehran University of Medical Sciences, Tehran, Iran; [3] School of Medicine, European University Cyprus, Nicosia, Cyprus; [4] Faculty of Medicine, Semmelweis University, Budapest, Hungary; [5] Section of Cardiac Surgery, Department of Cardiac Sciences, Libin Cardiovascular Institute, University of Calgary, Calgary, Canada

Ethical Statement: The authors confirm that patient consent is not applicable to this article. This is a systematic review and meta-analysis that does not use or report identifiable data.

Corresponding Author:
Ali Fatehi Hassanabad, fatehihassanabad@gmail.com

Background: Percutaneous left atrial appendage closure (LAAC) has become an important alternative for stroke prevention in patients with non-valvular atrial fibrillation who cannot tolerate long-term oral anticoagulation. However, the optimal antithrombotic regimen during the early post-implantation period remains uncertain.

Methods: A comprehensive literature search of PubMed, Web of Science, and Scopus databases was conducted up to February 2026. Randomized controlled trials comparing DOAC-based regimens with DAPT after LAAC and reporting clinical outcomes were included. Risk ratios (RR) with 95% CI were calculated using random-effects meta-analysis, and heterogeneity was assessed via the I^2 statistic.

Results: Three randomized controlled trials comprising 704 patients met the inclusion criteria. The mean age ranged from 76.5 to 77.3 years, with mean CHA_2DS_2-VASc scores of 4.0–4.6 and HAS-BLED scores of 3.5–3.7. DOAC therapy was associated with a significantly lower risk of device-related thrombus compared with DAPT (RR 0.17, 95% CI 0.05–0.59). Major bleeding was also significantly reduced with DOACs (RR 0.60, 95% CI 0.38–0.96). The composite endpoint of death, myocardial infarction, stroke, DRT, and bleeding favored DOAC therapy (RR 0.56, 95% CI 0.38–0.83). No statistically significant differences were observed between groups for stroke, systemic embolism, or all-cause mortality. Heterogeneity was minimal across all analyses.

Conclusion: In patients undergoing LAAC for non-valvular atrial fibrillation, reduced-intensity DOAC regimens may offer a favorable risk-benefit profile during the early post-procedural period. However, given the limited number of randomized trials and relatively short follow-up, further prospective studies are warranted to explore these findings.

PA25 Integrating ovarian and breast cancer case-control evidence for variant classification in BRCA1, BRCA2, and PALB2

Theodora Nearchou[1], Christian Carrizosa[1], Yifan Xing[2], Damianos Michaelides[1], Maria Zanti[1], Michael T. Parsons3, Christiana Kartsonaki[2], Amanda B. Spurdle3, Kyriaki Michailidou[1]

[1]Department of Biostatistics, The Cyprus Institute of Neurology & Genetics, Nicosia, Cyprus; [2]Nuffield Department of Population Health, University of Oxford, United Kingdom; [3]Population Health Program, QIMR Berghofer, Brisbane, Queensland, Australia.

Keywords: Germline Variation, Clinical Variant Interpretation, Hereditary Breast and Ovarian Cancer, Likelihood Ratio

Background: A case-control likelihood ratio evaluates a genetic variant's distribution across cases and controls under two competing hypotheses: that the variant confers risk comparable to an average pathogenic variant or that is benign. This case-control evidence has been recently validated using breast cancer data for clinical variant interpretation in high-risk hereditary breast and ovarian cancer genes. However, its application to ovarian cancer specifically, and the cross-cancer comparisons, has not been evaluated.

Methods: We applied a case-control likelihood ratio (ccLR) framework to rare exonic variants in BRCA1, BRCA2, and PALB2 using 10,575 ovarian cancer cases and 679,673 controls from UK Biobank, All of Us Research Program, BioBank Japan, CZE-CANCA and FinnGen. ccLR evidence was calculated for 8,971 variants with MAF < 0.01: 2,766 in BRCA1, 4,641 in BRCA2, and 1,564 in PALB2. Concordance was evaluated for variants reviewed in ClinVar by experts or multiple submitters without conflicts; those classified as variants of uncertain significance (VUS) were further examined to identify where ovarian cancer case-control evidence could support their interpretation. Finally, we compared ovarian cancer ccLR evidence with published breast cancer ccLR evidence in the UK Biobank cohort.

Results: Ovarian cancer ccLR analysis identified 413 variants reaching at least pathogenic supporting evidence (ccLR > 2.08), including 156 in BRCA1, 220 in BRCA2, and 37 in PALB2. Among the 922 variants included in the ClinVar comparisons, concordance was high for BRCA1 (95.1% concordant, $\kappa = 0.87$), moderate-to-high for BRCA2 (86.9%, $\kappa = 0.68$), and lower for PALB2 (62.5%, $\kappa = 0.28$). Among variants currently absent or listed as VUS in ClinVar, 69 showed ovarian cancer ccLR evidence supporting pathogenicity. Comparison of UK Biobank breast and ovarian cancer results identified 774/832 variants with concordant binary ccLR evidence across both phenotypes. 62 variants showed pathogenic evidence in ovarian cancer but uninformative or benign in breast cancer (ccLR < 1) across all genes.

Conclusion: Our findings demonstrate that incorporating ovarian cancer ccLR evidence provides additional information beyond breast cancer data alone, supporting its value for clinical variant interpretation in hereditary cancer.

Funding

The project EXCELLENCE/0524/523 is implemented under the programme of social cohesion
"THALIA 2021-2027" co-funded by the European Union, through the Research and Innovation Foundation

PA26 Digital search patterns in nicotine use. A new era

Stamatoula Tsikrika[1], Aimilianos Grassos[2], Dimitrios Grassos[3]

[1]Sotiria Thoracic Diseases General Hospital of Athens; [2]School of Medicine, European University Cyprus; [3]Pulmonology Clinic Panarcadian Hospital Tripolis, Greece

Introduction: Internet search behavior serves as an increasingly recognized proxy for population-level interest in nicotine product use and cessation, offering a scalable, near real-time complement to traditional epidemiological surveillance systems. Characterizing engagement with smoking-, vaping-, and nicotine pouch–related search content may support the development of demographically targeted public health messaging and prevention strategies.

Methods: This descriptive, ecological analysis synthesized publicly available Google Trends data (relative search volume indices, normalized 0–100 by region and time period) with demographic estimates derived from published digital behavior research on nicotine-related queries. Search categories were defined a priori as smoking, vaping, and nicotine pouches, along with three cessation-related query clusters (tobacco cessation, smoking cessation, vaping cessation). Relative search volume, age- and race-stratified engagement patterns, and estimated click-through interest were extracted and compared descriptively across categories and demographic strata. Given the aggregate, index-based nature of Google Trends data, results are reported as relative and proportional differences rather than absolute counts, and no individual-level inferential testing was performed.

Results: Smoking-related search volume was highest among adults aged 35–54 years, with proportionally greater engagement among users identifying as White or Hispanic relative to other demographic groups. Vaping-related queries showed a distinct age distribution, peaking among individuals aged 15–24 years, with elevated relative interest among White and Asian adolescents and young adults. Nicotine pouch–related searches showed a marked upward trend among adults aged 25–34 years, concentrated among males in North America and Northern Europe. Across categories, vaping-related terms generate consistently higher search impression volumes than traditional smoking queries, consistent with a broader population-level shift in nicotine product engagement. Cessation-related search activity remained substantial: tobacco cessation queries constituted an estimated 30–40% of smoking-related click volume, while smoking cessation queries showed stable relative interest among adults aged ≥45 years across the observation period. Vaping cessation queries showed the steepest relative growth, with estimated year-over-year increases in click-through activity of 20–30%, concentrated among young adult users seeking guidance on withdrawal and quitting.

Conclusion: Aggregate search behavior data suggests a generational shift toward alternative nicotine products, alongside sustained and growing engagement with cessation-related information-seeking. While descriptive in nature and subject to the inherent limitations of search index data, these patterns support the value of digital surveillance as a complementary tool for identifying demographic subgroups warranting targeted cessation and prevention interventions.

Poster Abstracts

PA27 Targeting actin cytoskeleton regulators to inhibit cancer: a drug repurposing approach to halt pancreatic cancer metastasis

Andria Kotsoni [1]***, and Vasiliki Gkretsi*** [1]

[1] Department of Life Sciences, School of Life & Health Sciences, European University Cyprus

Pancreatic ductal adenocarcinoma (PDAC) is one of the most lethal malignancies, characterized by late diagnosis, extensive metastasis, and poor therapeutic response. Tumour cell migration and invasion are highly dependent on the dynamic remodelling of the actin cytoskeleton, a process regulated by numerous actin-binding proteins that have emerged as key drivers of cancer progression and metastatic dissemination. Given the central role of cytoskeletal dynamics, actin-regulatory proteins represent promising but underexplored targets for anti-metastatic therapies. Among actin cytoskeleton regulators, the actin-bundling protein, Fascin-1, plays a crucial role in tumour progression as it is significantly upregulated in metastatic PDAC, promotes filopodia formation, cell migration, and invasion. Using a cheminformatics approach, Fascin-1 3D crystal structure was screened against an FDA-approved drug library and the drug Benserazide was identified as a promising Fascin-1 inhibitor. Our work shows that PDAC cells treated with Benserazide show reduced cell viability, decreased migration and invasion, as well as changes in actin cytoskeleton organization suggesting reduced metastatic potential. Overall, our results support the potential repurposing of Benserazide as a novel therapeutic strategy for metastatic PDAC and highlight the actin cytoskeleton as a promising anti-metastatic target.

ΥΓΕΙΑ | ΟΜΟΡΦΙΑ | ΕΥΕΞΙΑ

ΠΑΠΑΕΛΛΗΝΑΣ
ΟΜΙΛΟΣ

Αποστολή μας, να κάνουμε
όλο και περισσότερους ανθρώπους
να ζουν και να νιώθουν
καλύτερα.



www.papaellinasgroup.com.cy

Names of Chairpersons and Speakers in Alphabetical Order

A

Adamidi Tonia
Agathaggelou Petros
Anastasakis Aris
Andreou Elena
Antoniades Loizos
Antrikopoulos George K.
Apostolopoulos Vasso
Arnaoutoglou Eleni
Aroditis Costakis
Astrup Arne
Avraamides Panagiotis

B

Barnes Peter
Bista Evangeli
Boustras Giorgos

C

Charalambous Haris
Charpentier Emmanuelle
Chountis Panos
Christidi Aikaterini
Christodoulides Theodoros
Christodoulou Panayiota
Christofides Foivos

D

Daniel Georgia
Demetriou Philippos
Dietis Nikolaos
Dimas Konstantinos
Dimopoulos Christos

E

Economides Evagoras
Economides Panayiotis
Eteokleous Nicos
Evripidou Polys

F

Filippatos Gerasimos
Floras John

G

Galanis Evanthia
Georgiou Georgios P.
Gerotziafas Grigoris
Giannakopoulos Triantafyllos
Grassos Charalambos
Grassos Dimitrios

H

Hadjistyllis Stelios
Hatziagelaki Erifili
Hadjipavlou Marios
Hinis Michalis
Hountis Panos

Names of Chairpersons and Speakers in Alphabetical Order

I

Ioannides Marios

K

Kallergis Elephterios
Kaplanis Prodromos
Karandreas Tassos
Kehl Timo
Kirmizis Antonis
Kountourakis Pantelis
Kourtellaris Pantelis
Kosteas Pavlos
Kotis Takis
Kriatseli Charalampos
Kristiansen Karsten
Kyparissopoulos Dimitrios
Kypreos Kyriakos
Kyriazis Ioannis

L

Lederer Carsten Werner
Linde Cecilia
Loizou Doros
Loizou Loizos

M

Makaritsis Konstantinos
Marouli Diamantina
Matsagkas Miltiadis (Miltos)
Michaelides Costas
Michaeloudes Charalambos
Michalis Lampros K.
Milionis Haralambos
Miltiadous Giorgos
Moustra Eracleous Era
Moustras Giorgos
Mouzarou Angeliki
Munter Lars
Myrianthopoulos Kimon

N

Naka Katerina
Neophytou Pavlos
Nicolaides Eleftherios
Nikolousi Elpida
Nikolousis Manolis

O

Odysseos Andreani
Othonos Nantia

Names of Chairpersons and Speakers in Alphabetical Order

P

Pallier Patrick
Pantzaris Marios
Papadopoulos Alexis
Papadopoulos Constantinos
Papadopoulos Dimitris
Papaioannou Spyridon
Papalois Apostolos
Papassavas Ilias
Partsota Margarita
Paschou Stavroula A.
Patrikios Ioannis
Pelliccia Antonio
Petrou Athanasios
Pittaras Andreas
Pnevmatikos Ioannis

R

Richter Dimitris
Rossing Peter

S

Savvopoulos Christos
Shaikh Irshad
Shavel Nina Fuller
Stanimirovic Andrija
Starling Randall C.
Stephanou Anastasis
Symeonides Phivos
Synetos Andreas

T

Telonis Savvas
Toursidis Achilleas
Toutouzas Konstantinos
Triantafillis Spyridon
Triposkiadis Filippos
Tsakalis Argyrios
Tsikrika Stamatoula
Tsitskari Maria
Tsougkos Elias
Tzanavaros Ioannis
Tzouvelekis Argyris
Tzvetanova Iva

V

Vasilas Konstantinos
Vasilikos Vasilis
Vassiliou George
Vomvas Dimitrios

X

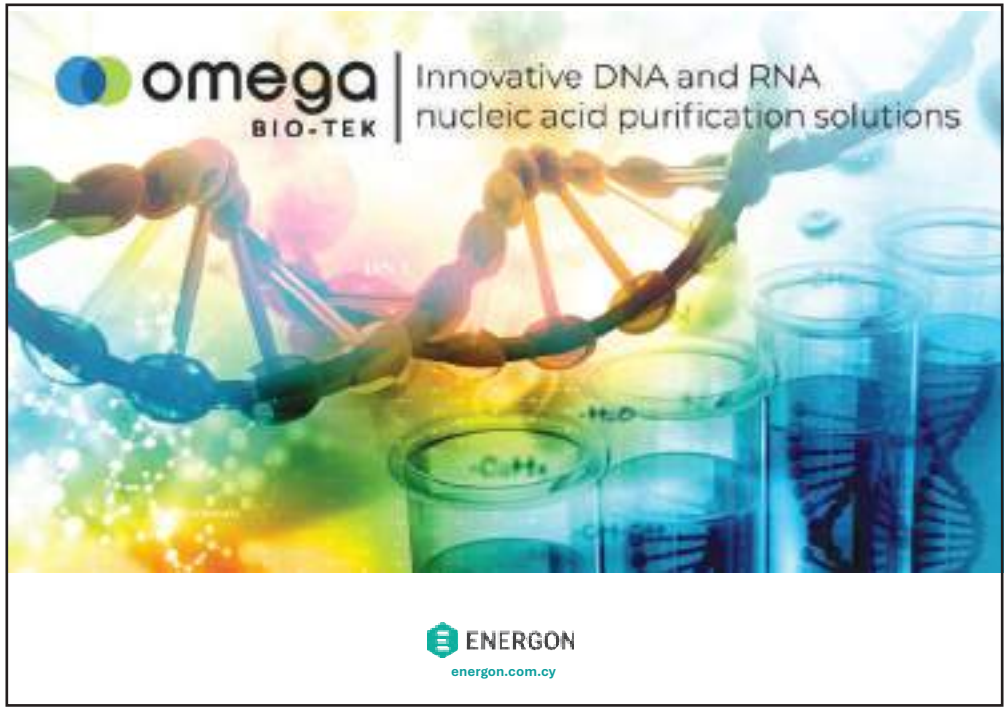
Xanthopoulos Andreas

Y

Yiallouris Andreas

Z

Zachariadis Andreas
Zafeiriou Efterpi
Zambas Neophytos
Zaravinos Apostolos
Zavrides Periklis
Zeniou Vicky



ENERGON

Medical Students Volunteers

GIANNIS SOKRATOUS Y5
MARIA ELIA Y5
ALEXANDROS KORDATZAKIS Y5
MALVINA NEOFYTOU Y5
STEFANIA MEGA Y4
MARIA KONDYLI Y4
SOMOU JAAFAR Y3
RAFAIL MICHAEL Y3
EFTYCHIA RODOKALAKI Y3
CHARALAMPOS PATSIAS Y3
RAFAELA LARKOU Y3
ALEXANDRA ACHER Y3
OIKONOMOPOULOU THEKLA Y3
STEPHANIA BAKALBASI Y3
OURANIA SATSIA Y3
LIBERTY GIORGALLI Y3
ANDRI MOUROUTI Y3
NIKITAS MOUROUTIS Y3
ANDREAS GEORGIOU Y3
JANA BRUNKE Y3
ANASTASIA KYRIACOU Y3
AGNI KYRIAKIDOU Y3
MAGNUS MO Y3
EVANGELIA STYLIANOU Y3
TALYAH ALLOUN Y3
CHRISTOS HANDRIOTIS Y3
SOTIRIS KARAPATAKIS Y3
MARILIA KALOGIROU Y3
SAVVINA SAVVA Y3

MARIA KAROLINA THEOFANOUS Y3
GIORGOS STYLIANOU Y2
KATHARINA CHRISTIANE SCHELLER Y2
ARISTEIDIS GKIOULEKAS Y2
YIOHANNA TSAPPA Y2
AMALIA VAVAROUTA Y2
DAPHNE SOILEMETZIDOU HANSEN Y2
MARIA ELENI ANAGNOSTAKI Y2
LILIAN HELENA LUBINUS Y2
AIMILIA PAPAZARKADA Y2
JESSICA SHEHATA Y2
ALEXANDROS MAVROMATIS Y2
IOANNA CINTAS Y2
LÉANE ANUJURU Y2
ANTZELA LERA Y2
RAZI KHAN Y2
ZAID VAN TONDER Y1
GEORGIA NTALIAPE Y1
KARIM RAFIA Y1



Sectra Education Portal and Table

SECTRA EDUCATION PORTAL
By connecting to Sectra Education Portal, a cloud-based sharing portal, teachers and students have access to an extensive library of cases, providing them with a wide variety of clinical content. Through Sectra's collaborative network, institutions can share cases and knowledge with other Sectra users from around the world.

THE SECTRA TABLE
Sectra Table is a multi-touch screen for interactive learning and teaching. It comes with an anatomy atlas and model cases (a number of pre-prepared clinical cases based on medical images), but you can easily add your own cases. Sectra's offering also includes a workspace for advanced preparation and organization of cases.

ENERGON

ENERGON

En-Ergon Scientific EES Ltd
T: +357 22 021 010
F: +357 22 780 770
E: info@energon.com.cy
W: www.energon.com.cy



thermo scientific
Authorised Distributor

Gaumard

omega BIO-TEK

VILBER
Smart Imaging

ISBN 978-9925-604-09-8