

## **Professor Dr Ingeborg Friehs**

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After graduating from Medical School in Austria she started residency in general surgery and continued by training with residency in cardiac surgery. Her training was accomplished both in Austria and the United States at Harvard Medical School affiliated hospitals. Since 2003, she has been on staff at Boston Children's Hospital in the Department of Cardiac Surgery and as faculty member of the Department of Surgery at Harvard Medical School. Dr Ingeborg lead her own research group and has teaching commitments not only at Harvard Medical School and Harvard School of Public Health but also at selected academic institutions in Europe, including European University Cyprus. Combining her medical background with scientific interests, has enabled her to establish novel therapeutic approaches addressing unmet needs in the treatment of congenital heart disease. Longstanding interest in heart failure, has led to the discovery of mitochondria as key players early in disease progression. Hypertrophy is one of the most common causes of heart failure in children and adults. In several of her publications she has established similarities, but also divergent pathways regulating left versus right ventricular hypertrophy. More detailed analysis of the divergent pathways was performed to identify clinically relevant chamber-specific therapeutic interventions which are currently not available. The specific and unique role of mitochondria in this process were early on apparent which led her to further concentrate on this topic. In collaboration with several colleagues at Boston Children's Hospital Dr Ingeborg established mitochondrial transplantation as novel therapeutic approach for treatment of cardiac diseases including heart failure. First clinical data indicated the success of her approach.