



HFA WINTER MEETING

FACULTY PROFILES 2019

Johannes **BACKS**



Johannes received the MD degree from Heidelberg University in 2002. He then conducted his postdoctoral studies on transcriptional control mechanisms in the heart in Dallas from 2003-2007 under the supervision of Eric N. Olson.

After leading an Emmy Noether junior research group in Heidelberg, he was in 2013 appointed as a W3 and DZHK professor (Department of Cardiology, Hugo A. Katus), and in 2015 he was promoted to the Director of the Department of Molecular Cardiology & Epigenetics (Center of Internal Medicine of the University Hospital Heidelberg). He recently received several outstanding investigator awards from the American Heart Association (AHA), European Society of Cardiology (ESC) and the International Society of Heart Research (ISHR) for his discoveries in the cardiovascular field. Johannes is board member of the German Society of Cardiology (DGK), the Heart Failure Association of the ESC and the ISHR.

Johannes served as consultant for Myogen Discovery Research and Gilead Colorado and collaborated with Gilead Sciences. His research focuses on the understanding of regulatory epigenetic mechanisms in the diseased heart and its translation to novel diagnostic and therapeutic approaches.

Jean-Luc **BALLIGAND**



MD 1984, UCLouvain. Assistant Professor of Medicine 95, Harvard Medical School. Agrégation de l'Enseignement Supérieur 97, UCLouvain. Full Professor of Medicine and Pharmacology 04, UCLouvain. J-L Balligand developed the core of his research projects in the biochemistry and cellular biology of nitric oxide synthases (NOS) in cardiovascular tissues. This is currently extended in the context of myocardial remodelling and regeneration, e.g. in response to catecholamines and beta-adrenoceptors. He is currently Head of the Pole of Pharmacology and Therapeutics and president of the Institut de Recherche Expérimentale et Clinique (IREC), Faculty of Medicine, UCLouvain and member of the Executive Committee, IREC. He also is practicing Physician at the Cliniques Universitaires Saint-Luc and teaches cardiovascular physiology and pharmacology at the Faculty of Medicine. He is member of the Royal Academy of Medicine of Belgium and board member of the health competitiveness cluster of the Wallonia Region, BioWin.

Johann **BAUERSACHS**



Johann Bauersachs studied Medicine at the University of Freiburg. After training as Clinical and Research Fellow at the Universities of Frankfurt and Heidelberg/Mannheim, in 1999 he moved to the University Hospital Wuerzburg where he became Consultant and Lecturer in Internal Medicine and Cardiology and was Associate Professor in the Department of Medicine from 2008 to 2010. Since 2010 he is Full Professor and Director of the Department of Cardiology and Angiology at Hannover Medical School.

Prof Bauersachs is an interventional cardiologist with special interests in acute coronary syndromes, left ventricular healing and remodelling, acute and chronic heart failure, as well as intensive care. He is particularly interested in the pathophysiology and treatment of peripartum cardiomyopathy, in aldosterone and mineralocorticoid receptor-mediated mechanisms, and the role of non-coding RNAs. He is Study Chair of the DIGIT-HF study investigating the effect of Digitoxin on morbidity/mortality in patients with advanced heart failure.

Prof Bauersachs is Fellow and Board Member of the Heart Failure Association, Chair of the HFA Clinical Section, and Chair of the HFA Study Group on Peripartum Cardiomyopathy. He is Chair of the Cardiovascular Section of the Fachkollegium Medizin, Deutsche Forschungsgemeinschaft (DFG), and Speaker of the Clinical Research Group (KFO) 311 "(Pre-)terminal heart and lung failure - mechanical unloading and repair" funded by the DFG.

Antoni**BAYES GENIS**

Dr Antoni Bayes-Genis is Head of the Heart Institute at Hospital Universitari Germans Trias i Pujol in Badalona (Barcelona, Spain), director of the ICREC (Heart Failure and Cardiac Regeneration) Research Program, and Full Professor at Autonomous University of Barcelona.

He is interested in precision medicine for heart failure management, and in stem cells and cardiac tissue engineering to salvage and restore "cure" injured myocardium.

Alessandro**BERTERO**

Dr. Alessandro Bertero is a Senior Fellow in the Dept. of Pathology at the University of Washington in Seattle, USA. During his undergraduate studies he trained with the late Prof. Guido Tarone at the University of Turin in Italy, where he investigated hypertrophic signalling pathways and obtained a BSci (2009) and an MSci (2011). Having being awarded a British Heart Foundation Graduate Fellowship, he joined the University of Cambridge in the UK where he obtained an MRes (2012) and a PhD (2016) by studying the mechanisms controlling early differentiation of human pluripotent stem cells (hPSCs) in the laboratory of Prof. Ludovic Vallier. In 2016, Dr. Bertero moved to the University of Washington for his postdoctoral training with Prof. Charles Murry. He was awarded an EMBO Long-Term Fellowship in 2017. His current focus is the study of three-dimensional chromatin organization and of its importance both during human cardiogenesis and in the context of familiar cardiomyopathies.

Luc**BERTRAND**

Luc Bertrand is Full Professor of Biochemistry at the University of Louvain, Brussels and Senior Research Associate of FNRS, Belgium. He is group leader in the Pole of Cardiovascular Research of the Experimental and Clinical Research Institute (IREC).

He acted and still acting as member of several Steering Committees including the Society for Heart and Vascular Metabolism, the basic branch of the French Society of Cardiology called GRRC and the Working Group on Myocardial Function of the ESC. He is particularly devoted in the organization of scientific conferences.

His scientific interest is focused on the link between metabolism and cellular signalling in cardiovascular diseases. He is exploring both insulin and AMP-activated protein kinase pathways, investigating novel post-translational modifications such as O-GlcNAcylation and acetylation.

Ildiko**BOCK-MARQUETTE**

Ildiko Bock-Marquette received her MD and PhD degrees at the University of Pecs. Following graduation, she became a member of the Department of Biochemistry at the Medical School of Pecs where she served as lecturer for three years. In 1994 she joined the Department of Pediatrics as a physician and lecturer, where she became familiar with the field of molecular genetics and genetic counseling. Eventually, she was granted an international fellowship award from the International Pediatric Research Foundation in 1996. She became a member of Dr. Jon Wolff's laboratory at the University of Wisconsin, Madison where her primary focus was to develop gene therapy approaches for neuromuscular and metabolic diseases. Consumed with aspirations of becoming a competent and effective physician-scientist, she continued her training in the Department of Pediatrics and Pediatric Cardiology with Dr. Deepak Srivastava in collaboration with the Department of Molecular Biology directed by Dr. Eric Olson at the University of Texas Southwestern Medical Center in Dallas, Texas. She established her own research team and became member of the Faculty of UTSW Medical Center in 2005. In 2012 she was invited and appointed to an associate professor position at the University of Pecs, where she currently leads her own research group. She received several investigator and research awards from the American Heart Association (AHA), National Institute of Health (NIH) (USA), Szentagothai advanced scientist award, OTKA-K Award, GINOP 2.3.2 Award of the National Research, Development and Innovation Office (Hungary). Her present research focuses on discovering and understanding the molecular mechanisms initiated by novel secreted molecules supporting post-hypoxic cardiac regeneration and repair.

Reiner**BOON**

Since 2016 Reiner Boon is an associate professor at the VU University Medical Center in Amsterdam and a W2 professor at the Goethe University in Frankfurt. Reiner received his PhD degree with honors in 2008 from the Academic Medical Center of the University of Amsterdam. He then moved to the Institute for Cardiovascular Regeneration in Frankfurt, Germany, where he started post-doctoral work in the laboratory of Prof. Dimmeler funded by the Netherlands organization for scientific research (NWO). From 2011 to 2016, Dr. Boon was a junior group leader in the Institute for Cardiovascular Regeneration in Frankfurt. He received multiple awards for his work on the effects of shear stress on endothelial cells and the role of microRNAs in aging of the cardiovascular system, including the prestigious Melvin L. Marcus Award from the American Heart Association in 2010 and the Franz-Maximilian Groedel Research Prize of the German Cardiac Society in 2014. Dr. Boon's research is funded by the state of Hessen, the German research foundation, the European Research Council (Starting grant) and the Dutch Scientific Organization NWO (Vidi). Current research is focused on non-coding RNA and aging of the cardiovascular system.

Dirk**BRUTSAERT**

MD, PhD, EFESC, EFACC; Professor-Emeritus of Physiology and Medicine, Faculty of Medicine and Pharmacy, University of Antwerp, Belgium (1966-2002); Co-chairman, Department of Cardiology, University Hospital Antwerp (UZA) (1981-2002); Honorary Consultant, Department of Cardiology, Middelheim Hospital, University of Antwerp, Antwerp (2002-2007).

Founding President of the Heart Failure Association (2004-2006); President of the Royal Academy of Medicine of Belgium (2004-2006). Past-Chairman, European Heart Health Institute, European Heart Agency of ESC, Belgium.

Major research interest: Myocardial and ventricular function (contraction, relaxation and filling, non-uniformity) in health and disease, in particular in heart failure, including the role of cardiac endothelium in endothelial-cardiomyocyte cell communication and therapeutic implications.

Michele**CICCARELLI**

Dr. Michele Ciccarelli, MD, Ph.D., graduated in medicine in 2001 at the Federico II, University of Naples. He worked as postDoc and then as a faculty member at Thomas Jefferson University, Philadelphia (Center for Translational Medicine, Prof WJ Koch) studying the role of the GRKs in cardiac metabolism and insulin resistance during HF. Here, he was awarded by AHA with the postdoctoral fellowship in 2009. He returned to Italy in 2012 at the University of Salerno where he is currently Associate Professor at the Faculty of Medicine, working as both clinician and molecular cardiologist. His studies focus on the multiple roles played by GRKs in the physiopathology of cardiovascular diseases, and in particular on the part of the adrenergic system in regulating cardiac metabolism and mitochondrial function through the GRKs subcellular localization and activity.

Gianluigi**CONDORELLI**

Dr. Gianluigi Condorelli received his MD at the University Federico II, Naples. He has been faculty at Thomas Jefferson University, Philadelphia and at the University of California San Diego, La Jolla, director of the Department of Medicine the National Research Council of Italy and is currently professor of cardiology at Humanitas University and Head of the Department of Cardiovascular Medicine and of the cardiovascular research area at the Humanitas Research Hospital. He is member of the Council on Basic Cardiovascular Sciences of the AHA and member of the Council on Basic Cardiovascular Science of the ESC.

His work focuses on the molecular mechanisms of cardiovascular diseases, in particular heart failure and, within this context, on the role of non-coding RNAs and epigenetics. He supervises investigators working on cardiomyopathies (through genetics and iPSC), on biomarkers of cardiovascular diseases (microRNAs, lncRNAs and microvesicles) and on the role of innate and acquired immunity in cardiovascular diseases.

Dana DAWSON

Prof. Dawson qualified in medicine in University of Medicine “Grigore T. Popa” in Iasi, Romania. After completing her MRCP with the Royal College of Physicians in London she read for a D. Phil in Cardiovascular Medicine at Merton College, University of Oxford. She trained in Cardiovascular Medicine in Edinburgh, Oxford and London in the UK and at the University of Virginia in the USA. She is a Reader in Cardiovascular Medicine and Honorary Consultant Cardiologist at the University of Aberdeen.

Her research interests include the patho-physiology and treatment of acute stress induced (Tako-tsubo) cardiomyopathy, myocyte lipid structure and turnover as a determinant of cardiovascular risk modulation, innovative Cardiac Magnetic Resonance and Cardiac Positron Emission Tomography assessments to gain new insights into heart disease and how can this be best treated.

Rudolf DE BOER

Rudolf de Boer is a Clinical Cardiologist and a Full Professor of (Translational) Cardiology at the University Medical Center Groningen, the Netherlands. He studied medicine at the University of Groningen and, previous to his current appointment, completed a research fellowship at the University of Utah, Salt Lake City, USA, a PhD program at the University of Groningen, and a post-doctoral fellowship at Harvard Medical School, Boston, USA.

His research group focuses on novel genes involved in cardiac remodeling, fibrosis, metabolic changes, and diabetes, always trying to connect clinical observations to preclinical and mechanistic studies.

He was appointed a Fellow of the European Society of Cardiology in 2010. He furthermore is the president of the Heart Failure Working Group of the Dutch Society of Cardiology, and since 2014 Board Member of the Heart Failure Association of the ESC, for which he since 2016 serves as a chair the basic section. He is coordinator of the HFA committee on Heart Failure with Preserved Ejection Fraction (HFpEF) and co-coordinator of the study group on Biomarkers.

Leon DE WINDT

Leon de Windt is professor of Molecular Cardiovascular Biology at Maastricht University and the recipient of several Awards, including the Louis N. and Arnold M. Katz Basic Science Research Award for Young Investigators from the American Heart Association; the VENI, VIDI and VICI career development awards from the Netherlands Organization of Scientific Research (NWO); The Fondation Leducq Transatlantic Network of Excellence; the 2012 Outstanding Achievement Award of the ESC Council for Basic Cardiovascular Science and the 2012 Galenus Research Prize.

In 2013, he received an ERC Consolidator Grant from the European Research Council and became coordinator of the Dutch CVON-ARENA consortium to support his work. In 2015, he received an NW0-VICI grant to expand his research activities. Many alumni from his group have successfully started their own research laboratories, fulfill executive industrial functions or became clinician-researchers as the future generation of leaders in medicine.

MIRELA DELIBEGOVIC

Prof Mirela Delibegovic is currently the Director (Diabetes) of the Aberdeen Cardiovascular and Diabetes Centre. She obtained her undergraduate BSc Honours Pharmacology degree from the University of Edinburgh in 1999. She then performed her PhD studies on the effects of insulin on glycogen targeting subunits of protein phosphatase 1 (PP1) in the MRC Protein Phosphorylation Unit at the University of Dundee, in the laboratory of Prof Patricia Cohen. In 2003, she moved to Harvard Medical School in Boston, where she did her postdoctoral work in the laboratory of Prof Benjamin Neel, studying the tissue specific role of protein tyrosine phosphatase 1B (PTP1B) in obesity and diabetes. She obtained the American Heart Association Fellowship to allow her to do this work. In 2007, she obtained the RCUK 5-year tenure track fellowship at the University of Aberdeen, developing mouse models of ageing and obesity. She was subsequently promoted to Senior Fellow (2012), Reader (2014) and Professor (2015). Mirela is sits on the Diabetes UK main grants committee and her research focuses on the role of tyrosine phosphatases in regulation of insulin sensitivity, endothelial dysfunction and atherosclerosis.

YVAN DEVAUX

Yvan Devaux, PhD, has a background training in Biological Sciences, focusing on Biology and Health during his PhD in France and a post-doc in the US. He joined the Luxembourg Institute of Health (LIH) in 2005 and became Head of the Cardiovascular Research Unit in 2017. His main interest is the discovery and validation of novel RNA biomarkers and therapeutic targets of heart failure. Since his research is translational and he believes that collaboration can forward this area of research, he founded the Cardioline™ network in 2014 to bring together complementary expertise from clinicians, basic researchers, statisticians, bioinformaticians, systems biologists, and industrialists, towards the satisfaction of unmet medical needs. He is currently Chair of the Cardioline™ network and Chair of the COST Action CardioRNA.

Thomas ESCHENHAGEN

Thomas Eschenhagen, MD, is currently Professor of Pharmacology and director of the Department of Experimental Pharmacology and Toxicology at the University Medical Center Hamburg Eppendorf, Germany. He is best known for his pioneering work on 3-dimensional engineered heart tissue (EHT) from primary cardiac cells. Originally designed as an improved in vitro model for drug testing and target validation, the EHT technology has recently been expanded to an automated 24-well screening platform. In combination with recently established protocols to generate cardiac myocytes from human embryonic and induced pluripotent stem cells, this technique opens new perspectives in biomedicine, e.g. medium throughput drug screening, LQT and cardiotoxicity testing, disease modeling and others. In parallel, he and his group have developed the technology towards cardiac repair applications and have shown that rat EHTs survived on infarcted rat hearts and improved their function. Recent data with human iPSC-derived EHTs on infarcted hearts of immune suppressed guinea pigs (Science Translat Med 2016) are very encouraging and favor the next steps towards clinical application.

Inês FALCÃO-PIRES

Inês Falcão-Pires received her PhD in Human Biology from the University of Porto (Portugal) in 2009. During this time she developed collaborative work with the Department of Physiology of VUMC (Amsterdam) focusing on the mechanisms underlying diastolic heart failure, particularly on the impact of diabetes mellitus. Since 2013 she is Assistant Professor of Physiology in the Faculty of Medicine of University of Porto. Currently, she is the principal investigator of the research group on Myocardial Reverse Remodelling at the Cardiovascular Research Centre (UnIC) where she focus on the distinct mechanisms between complete and incomplete reverse remodelling in several cardiovascular diseases. She has participated in over 50 scientific publications in the cardiovascular field and in more than 20 National and European research projects.

Stefan FRANTZ

Stefan Frantz, MD, studied Medicine in Würzburg and Regensburg (Germany), did his postdoc in Boston, and his fellowship for Internal Medicine and Cardiology again in Würzburg. In 2010 he became one of the founding members and scientific director of the Comprehensive Heart Failure Center (CHFC) in Würzburg. 2014 he moved to Halle/ Salle (Germany) and held there the chair for Internal Medicine/ Cardiology. In 2017 he became chair for Internal Medicine in Würzburg. He is director of the Medizinische Klinik and Poliklinik I in Würzburg and deputy speaker of the CHFC.

His research focuses on the role of the innate and adaptive immune system after myocardial infarction, ischemia/ reperfusion, and in heart failure. He is also interested in the interaction of the heart with other organs, e.g. the brain, in heart failure.

Alessandra GHIGO

Alessandra GHIGO received her PhD in Biomedical Sciences and Oncology from University of Torino (Italy) in 2012. During the PhD, she was a Visiting Fellow at Université Paris-Sud 11 (France) in the Laboratory of Signaling and Cardiac Pathophysiology, where she focused her research on the role of PI3K γ in cAMP compartmentalization in heart failure, particularly in ventricular arrhythmias. Since 2014, she is Assistant Professor of Experimental Biology at the Department of Molecular Biotechnology and Health Sciences at the University of Torino (Italy). Her current research interest focuses on the comprehension of the molecular mechanisms underlying the cardiotoxicity of anti-cancer therapies, with a major focus on the contribution of PI3K γ .

Mauro**GIACCA**

Mauro Giacca, MD PhD, is the Director-General of the International Centre for Genetic Engineering and Biotechnology (ICGEB), an international research organization in the United Nations common system, and Full Professor of Molecular Biology at the University of Trieste. His current research interest focuses on the development of novel biotherapeutics for cardiovascular disorders, with particular emphasis on the identification of growth factors and microRNAs fostering cardiac regeneration. He also maintains a strong interest in the molecular biology of HIV-1 infection.

Arantxa**GONZÁLEZ MIQUERO**

Arantxa González received her PhD in Biochemistry from the University of Navarra (Spain) in 2003. After being granted the Norman R. Alpert Award (from the ESC and the AHA), she completed her postdoctoral training at the New York Medical College and at the Brigham and Women's Hospital (USA). When she returned to Spain she obtained a Ramón y Cajal Fellowship from the Spanish Government (2010-2015). Currently, she is the principal investigator of the research group on Heart Failure and Myocardial Remodeling (Program of Cardiovascular Diseases) at the Center for Applied Medical Research, (University of Navarra, Spain). Her research is focused on studying the alterations of the cardiac extracellular matrix and their contribution to the development of heart failure. She is also involved in the development and validation of non-invasive biomarkers of myocardial remodelling in heart failure patients. She has participated in over 90 scientific publications in the cardiovascular field and in more than 20 National and European research projects.

Nazha**HAMDANI**

Current position: Assistant Professor in the department of cardiovascular physiology at the Institute of Physiology at Ruhr University in Bochum, Germany.

Education: Ph.D. in Physiology in 2009 from Institute for Cardiovascular Research (ICaR-VU), VU University Medical Center, Amsterdam, The Netherlands.

Lutz**HEIN**

Lutz Hein, MD, is professor and chair of pharmacology at the University of Freiburg, Germany. He studied medicine at the Universities of Kiel (Germany) and San Diego (USA). He received his postdoctoral training at Stanford University (USA) and at the University of Würzburg (Germany). He is member of the Leopoldina - National German Academy of Sciences and President of the German Pharmacological Society. His main current research interest is to identify the epigenetic mechanisms of heart development and disease.

Stephane**HEYMANS**

Cardiologist and Research Scientist since 2003 focusing on the molecular mechanisms of heart failure, looking at the interplay between inflammatory cells, fibroblasts and cardiomyocytes. Unraveled the key role of structural and non-structural matrix proteins and RNAs, including microRNAs, matrix metalloproteinases, collagens and matri-cellular proteins, in mediating cardiac inflammation, fibrosis and dysfunction.

After his MD PhD at the university of Leuven, Belgium, and short stays in Berlin, Paris, London and Trieste, Stephane Heymans became a staff member of Cardiology since 2003 at the Maastricht University Medical Centre (MUMC), in 2009 appointed professor of (non-ischemic) cardiomyopathies within the Netherlands Heart Institute, the Maastricht University Medical Centre, and the University of Leuven. His heart failure research focuses on heart with preserved ejection fraction (HFPEF) and dilated cardiomyopathies (DCM) (www.hfresearch.eu).

SH is acknowledged for developing a clinical care program and related cohorts of non-ischemic CMP, myocarditis and HFPEF patients at the MUMC (> 1400 patients cohort and biobank of HFPEF and DCM

patients with > 12 yrs FU). His program brings together immunologists, microbiologists, geneticists and molecular cardiologists to study the role of genetics, viruses, inflammation and other environmental factors in cardiomyopathies. This clinical works allows a continuous translation between the bench and the bedside. SH is board member at the European Heart Failure Association, Chair of the Committee on Translational Research of the European Heart Failure Association, Chair of the Working Group of Myocardial Function of the European Society of Cardiology.

Emilio

HIRSCH



Emilio Hirsch is Professor of Experimental Biology in the School of Medicine, University of Torino, Italy. He received his PhD in 1994 in the University of Torino and was a postdoctoral fellow in the Max Planck Institute in Munich, Germany. He provided seminal contributions in the characterization of phosphoinositide 3-kinases (PI3K) as drug targets in cancer, inflammation, and heart failure. He collaborated with Merck-Serono in the characterization of the first isoform selective PI3Kgamma inhibitor and launched an academic spin off (Kither Biotech srl) exploiting his patented PI3K inhibitors for inhaled treatment. He was the first to demonstrate that PI3K are not only enzymes but also scaffold proteins, showing that PI3Kgamma associates with PKA to integrate PI3K and cAMP signaling in the heart. He recently shifted to mechanisms of cardiotoxicity induced by anti-cancer treatment and discovered that PI3Kgamma inhibition protects from doxorubicin-induced heart failure.

Jean-Sébastien

HULOT



Dr Jean-Sébastien Hulot is Professor of Medicine, Pharmacology at Paris University, Paris, France. He is a medical cardiologist and received his MD degree at Paris University Hospitals and his PhD degree in clinical and experimental pharmacology at the René Descartes Paris 5 University. From 2010 to 2014, he served as an Associate Professor of Medicine, Cardiology at the Cardiovascular Research Center at Mount Sinai School of Medicine in New York, USA.

Since 2014, he is leading an INSERM-labelled research team investigating on novel molecular mechanisms that drive heart failure. The studies include animal models but also translational models based on human induced pluripotent stem cells & genome editing approaches. A main research focus is elucidation of mechanisms that drive defective intracellular calcium handling and activation of pathological calcium-mediated signaling pathways. The team has identified a complex (STIM1/Orai3) as an upstream regulator of calcium-signaling pathway supporting cardiac myocyte growth in response to stress and protecting the heart from dysfunction. The team has also been involved in the development of gene therapy approaches to restore deficient calcium cycling in the failing hearts, including in humans. More recently, the team has identified a new population of cardiac cells expressing an adult stem cell marker (i.e., PW1/Peg3) but who contribute to adverse fibrotic remodeling of the damaged hearts rather than regenerating the contractile or vascular components.

Guido

IACCARINO



Guido received the MD degree from Federico II University in 1991. He then specialised in Cardiology in 1995, and then obtain a PhD In 2000. Since 2002 he is faculty of the Italian Ministry of University, serving as a researcher at Federico II, Associate Professor of Internal Medicine at University of Salerno (2011), and Full professor of Applied Medical Science and Technology at the Federico II University of Naples (2018).

He dedicated his career to the research of the molecular mechanisms of adrenergic control of cardiovascular system. He trained with Giuseppe Lembo in Naples, and Robert J. Lefkowitz and Walter J. Koch in Durham, NC, specializing in the beta adrenergic signaling and endothelial function. Recently, he investigated the role of adrenergic signaling and GRKs in the control of cells metabolism and mitochondria biology.

The Clinical Activity of the Salerno University Hospital of Guido is centered around the Hypertension Clinic he directs, which includes a Program for ICT based Remote Monitoring of Cardiovascular Patients.

Malcom IRVING

Malcolm Irving is Professor of Biophysics at King's College London and Associate Director of Research at the Francis Crick Institute, London, where he is responsible for the Crick's partnership with Imperial College London, King's College London, and University College London (UCL). Following an undergraduate degree in Physics (Cambridge UK), Malcolm undertook postgraduate research training in physiology at UCL, followed by post-doctoral work at UCLA and Yale. His main research interest is in molecular mechanisms in the contraction and regulation of skeletal and cardiac muscle. Recent research has focused on the regulation of contraction, initially on the canonical calcium signaling pathway acting through the thin filaments, but most recently on novel mechanisms involving structural changes in the thick filaments. Malcolm was elected a Fellow of the Royal Society in 2003 and a Fellow of the Academy of Medical Sciences in 2006.

Elisabeth JONES

Dr. Jones studies the process of vascular remodelling, with a significant focus on the role of hemodynamics. Remodelling encompasses many elements including angiogenesis, vessel regression, vessel enlargement and arteriovenous differentiation. Her research uses a combination of physical and genetic manipulation, in vivo microscopic techniques, as well as computational modelling. In her heart failure research, she is focused on elucidating the mechanism of vascular rarefaction and its role in disease progression.

Martina KRUGER

Martina Krüger studied Biology at the University of Freiburg. She received her PhD from the University of Cologne in 2003, where she continued her work on myofibrillar force kinetics as a postdoc. In 2005 she joined Wolfgang Linkes group and became Research Assistant Professor at the University of Münster and in 2009 at the University of Bochum. In 2011 she was appointed full professor for Cardiovascular Research at the University of Düsseldorf. Her research interests include cardiomyocyte function after myocardial injury and the mechanisms of sarcomere dysfunction in diabetes-induced heart failure.

Leslie LEINWAND

Leslie Leinwand, PhD is a Molecular, Cellular, and Developmental Biology (MCDB) Distinguished Professor and the Chief Scientific Officer of the BioFrontiers Institute at the University of Colorado Boulder. She was recruited to be Chair of MCDB in 1995. She received her Bachelor's degree from Cornell University, her PhD from Yale University and did post-doctoral training at Rockefeller University. She joined the faculty at Albert Einstein College of Medicine in New York in 1981 and remained there until moving to Colorado in 1995. She co-founded Myogen, Inc. which was sold to Gilead Pharmaceuticals. More recently, she was a co-founder of Hiberna, Inc, and of MyoKardia, Inc. a company founded to develop therapeutics for inherited cardiomyopathies. She is a Fellow of the AAAS, former MERIT Awardee of the NIH, Established Investigator of the American Heart Association and was recently elected to the American Academy of Arts and Sciences and the National Academy for Inventors. She has been honored by the American Heart Association with its Distinguished Scientist Award. The interests of Dr. Leinwand's laboratory are the genetics and molecular physiology of inherited diseases of the heart and how gender and diet modify the heart. The study of these diseases has required multidisciplinary approaches, involving molecular biology, mouse genetics, mouse cardiac physiology, and the analysis of human tissues.

Wolfgang LINKE

Graduated with a PhD from the University of Halle-Wittenberg (Germany) and received postdoctoral training at the University of Washington in Seattle (USA) for 3 years. In 1994 he became Research Assistant Professor at the Institute of Physiology, University of Heidelberg (Germany), where he stayed until 2003, interrupted by sabbaticals at the Mayo Clinic Rochester (USA) and Columbia University New York (USA). He was appointed Full Professor and Head of the Physiology & Biophysics Group at the University of Muenster (Germany) from 2003 until 2009. Between 2009 and 2017 he was Department Chair and Professor for Cardiovascular

Physiology at Ruhr University Bochum (Germany). Since 2017, he is Professor of Physiology and Director of the Institute of Physiology II at the University of Muenster (Germany). He also holds a Professorship in Cardiac Mechanotransduction at the Heart Center, University Medicine, in Goettingen (Germany). His main research interests include basic and translational aspects of heart failure development, cardiac myocyte mechanical function, mechanosensitivity, and protein quality control. Among others, he is a Fellow of the International Society for Heart Research (ISHR) and elected member (Academician) of the Academy of Sciences, Goettingen (Germany).

Kristina

LORENZ



Kristina Lorenz is the Director of Biomedical Research at the Leibniz Institute for Analytical Sciences – ISAS – e.V. in Dortmund and professor for Mechanisms of Cardiovascular Diseases at the University of Duisburg-Essen since 2016. She studied Pharmacy and received her PhD at the Institute of Pharmacology and Toxicology in Wuerzburg. She worked as post-doctoral research fellow and group leader in Wuerzburg and Dresden and was appointed as professor for Molecular Pharmacology in Würzburg 2013. Her group investigates signaling pathways involved in heart failure and cardiac hypertrophy with major focus on mitogen-activated protein kinase (MAPK) and G protein coupled receptor (GPCR) signaling.

Peter

LOSKILL



Jun.-Prof. Dr. Peter Loskill is Assistant Professor for Experimental Regenerative Medicine at the Eberhard Karls University Tübingen and head of the Fraunhofer Attract group Organ-on-a-Chip at the Fraunhofer Institute for Interfacial Engineering and Biotechnology (IGB) in Stuttgart, Germany. Dr. Loskill graduated in 2012 from Saarland University with a PhD in Physics focusing on Biointerface science. He then spent three years in the laboratory of Prof. K. E. Healy at the University of California at Berkeley. There, he worked as a postdoctoral fellow and project leader, funded by the NIH NCATS TissueChip program and the German Science Foundation, and developed organ-on-a-chip (OoC) systems based on human iPSC-cell technology. In 2015, he was named as one of Technology Review's "Innovators under 35 Germany" and was awarded a Fraunhofer ATTRACT Grant, the highest funded German starting grant program, which enabled him to start an independent research group at Fraunhofer IGB. His μ Organo lab now focuses on i) the development of human microphysiological OoC systems, ii) on the application of OoC for pharmaceutical research, toxicological screening, and mechanistic studies, specifically towards woman's health, as well as iii) on the development of enabling technologies for OoC that support parallelization, automation and ease of use. To advance OoC research in Europe, he currently coordinates the European training network (MSCA-ITN) EUROoC, works on an OoC roadmap within H2020-FET-Open ORCHID, and serves as the vice-chair and founding member of the European OoC Society (EUROoCS).

Alexander

LYON



Dr. Alexander Lyon is a British Heart Foundation Senior Lecturer in Cardiology at Imperial College London and a Consultant Cardiologist at the Royal Brompton Hospital.

After studying medicine at Oxford University for a first class degree, he studied for his PhD thesis in myocardial gene therapy at Imperial College London. He continued his gene therapy research during a postdoctoral research year in the laboratory of Roger Hajjar at Mount Sinai Hospital in New York. His clinical interests are in the field of heart failure, chemotherapy cardiomyopathy and the cardiovascular complications of modern cancer therapies, Takotsubo syndrome, and the development of novel therapeutics including gene therapy for chronic heart failure.

Alex was appointed to the board of the Heart Failure Association of the ESC in 2016, and is chair of the study groups for Cardio-Oncology and Takotsubo Syndrome.

Alex is president of the British Cardio-Oncology Society and he is the cardiology advisor to Macmillan Cancer. He is a member of the International Cardio-Oncology Society and is co-chair of the 2017 ICOS-BCOS hosted Global Cardio-Oncology Summit in London.

He leads both a laboratory research programme understanding the influence of stress and high catecholamine levels upon myocardial function, and he is coordinating both a national and European strategy to advance knowledge and improve care for individuals with Takotsubo syndrome.

Christoph MAACK



Christoph Maack received his MD at the University of Cologne (Germany) in 2000. From 2000 to 2017, he mainly worked at the Department of Cardiology at the University of the Saarland in Homburg, Germany. From 2002 to 2005, he performed a post-doctoral research fellowship in the Department of Cardiology at Johns Hopkins University in Baltimore, MD, US. From 2006 on, he established his own working group in Homburg with the support of the Emmy Noether Programme (2006-2011) and a Heisenberg Professorship on Cardiovascular Physiology and Bioenergetics (2012-2017) of the German Research Foundation (DFG). In 2017, he became the Chair of the Comprehensive Heart Failure Center (CHFC) at the University Clinic in Würzburg, Germany, where he also leads the Department of Translational Science. His work focuses on cellular defects in chronic heart failure, with a special emphasis on the mechanisms of contractile, mitochondrial and metabolic dysfunction in heart failure. Other research areas are epigenetic regulation and adrenergic signaling in heart failure.

He was a Board member of the Heart Failure Association (HFA) of the European Society of Cardiology (ESC) from 2010-2016, where he served as the Coordinator of the Translational Research Committee (2011-2014), as the Chair of the Basic Science section on the Executive Committee (2014-2016) and as the organizer of the HFA Winter Meeting (2012-2016). Since 2015 he is a Fellow of the HFA of the ESC and serves on the Program Committee of the German Cardiac Society.

Manuel MAYR



Manuel Mayr qualified in Medicine from the University of Innsbruck (Austria) in 1999, where he graduated "sub auspiciis praesidentis", the highest distinction awarded for academic education. He soon decided that his interests lay in research and therefore took up full-time research training in 2001, when he moved to St George's Hospital Medical School to undertake a PhD with Professor Qingbo Xu. His PhD was awarded by the University of London in 2005, on the topic of "Cardiovascular Proteomics: Linking Proteomic and Metabolomic Changes". He obtained a BHF Intermediate Research Fellowship in 2005 and in 2006 moved to King's College London as Lecturer in the Cardiovascular Division. In 2008, he was successful in obtaining a BHF Senior Research Fellowship and this was recently renewed for a second term. In parallel, he achieved promotion to Senior Lecturer in 2008, to Reader in 2010, and to Professor in 2011. His academic achievements have been recognised by the inaugural Michael Davies Early Career Award of the British Cardiovascular Society (2007), the inaugural Bernard and Joan Marshall Research Excellence Prize of the British Society for Cardiovascular Research (2010), and the Outstanding Achievement Award by the European Society of Cardiology Council for Basic Cardiovascular Science (2013).

Alexandre MEBAZAA



Alexandre Mebazaa, MD, PhD, FESC, is Professor of Anaesthesiology and Critical Care Medicine at the Hôpital Lariboisière, University Paris 7, France. His research interests include mechanisms of contractile impairment during acute heart failure and global studies on biomarkers in acute heart failure. He acted as member or Chair of several Steering Committees including SURVIVE, COMPOSE, TRUE-HF. He is also involved in several European and global registries on circulatory failure. He has authored or co-authored more than 200 papers and is Lead-Editor of the Acute Heart Failure textbook. Dr. Mebazaa also serves as the Chair of Department of Anesthesiology and Critical Care in Paris.

Vojtech MELENOVSKY



Vojtech Melenovsky, MD, PhD is medical director of heart failure/transplant program and research co-director of Cardiology Department in Institute for Clinical and Experimental Medicine – IKEM, and associate professor of medicine at Charles University in Prague, Czech Republic.

After clinical training at Charles University in Prague he worked (2002-2005) as postdoctoral research fellow at Johns Hopkins Hospital (prof. David Kass) and NIH-NIA (prof. E. Lakatta) and later (2012-2013) as Fulbright fellow at Mayo Clinic (Dr. Barry Borlaug).

His main research interests are clinical and experimental pathophysiology of heart failure, metabolic aspects of cardiac dysfunction and pulmonary hemodynamics/right ventricular function in HFpEF and HFrEF.

Tohru**MINAMINO**

Dr. Tohru Minamino is Professor and Chairman of the Department of Cardiovascular Biology and Medicine, Niigata University Graduate School of Medical and Dental Sciences. He received his MD from the Chiba University Graduate School of Medicine in 1989 and his PhD from Faculty of Medicine, the University of Tokyo in 1997. He is a medical cardiologist and research scientist focusing on molecular mechanisms of aging. He has started his major research focusing on cardiovascular aging at Harvard Medical School (1997–2000), and his research interests have currently been growing in the biology of aging including metabolic pathways of longevity and senolysis. He published more than 100 papers including *Nature*, *Nature Medicine*, *Cell*, *Cell Metabolism*, and *Lancet*. Dr. Minamino has won several awards including Award of International Symposium on SHR, Jokichi Takamine's Award in Japanese Society of Cardiovascular Endocrinology and Metabolism, Satoh Memorial Award in Japanese Circulation Society, and Erwin von Bälz Award (1st prize). He is Vice President of Japanese Society of Anti-aging Medicine and serves as Director of various scientific societies including International Society of Heart Research, Japanese College of Cardiology, Japanese Society of Cardiovascular Endocrinology and Metabolism, Japanese Vascular Biology and Medicine Organization. He also serves as Associate Editor of scientific journals including *Journal of Molecular and Cellular Cardiology*, *PLOS ONE*, and *Nature Partner Journal Aging and Mechanisms of Disease*.

LUCILE**MIQUEROL**

Lucile Miquerol, PhD is a research scientist at the Institute of Developmental Biology of Marseille (IBDM) in France. She received her PhD in Human Genetics from Paris 7 University in 1996. After 4 years at the Samuel Lunenfeld Research Institute in Toronto Canada as postdoc, she returned to France at IBDM in Marseille and obtained a CNRS researcher position. During her career, she developed several transgenic mouse models to study diverse biological processes from embryonic development to pathologies such as cancer or cardiac diseases. She received the CNRS Bronze medal in 2005.

Since 2000, her project focuses on the development of the ventricular conduction system in mice. The generation of sophisticated genetic tools such as Cx40-GFP or Cx40-CreERT2 mouse lines has allowed her to study the morphology and electrophysiology of cardiac Purkinje fibers and decipher their embryonic origin. These mice are also useful to study the development of coronary arteries in embryos or after myocardial infarction.

Her work is supported by the Ligue contre la Cardiomyopathie and the AFM-Téléthon.

JAVID**MOSLEHI**

Dr. Moslehi is an Assistant Professor of Medicine at Vanderbilt School of Medicine. He directs the Cardio-Oncology program, a clinical and research program focused on cardiovascular health of cancer patients. Dr. Moslehi also directs a research laboratory, with general interests that include mechanisms of cardiovascular toxicities that occur as a result of targeted cancer therapies, adverse effects of tumors on the cardiovascular and metabolic systems, cancers that arise from the heart, and the growing appreciation that common risk factors (including genetic mutations) predispose to both cancer and cardiovascular disease. The Moslehi laboratory uses an integrated approach from molecules, cell-based and animal models, and systems biology towards these goals. As well, the laboratory is well integrated to the Vanderbilt cardio-oncology clinical program, with the hope that discoveries in the laboratory will translate into clinical practice.

ALEJANDRO OCAMPO

Alejandro Ocampo obtained his PhD in 2012 from the University of Miami for his work under the supervision of Antoni Barrientos on the role of mitochondria in neurodegenerative proteinopathies and aging. Between 2013 and 2017, he performed a post-doctoral training with Juan Carlos Izpisua-Belmonte at the Salk Institute for Biological Studies in La Jolla, California. During his post-doctoral training at the Salk, he developed a novel technology to prevent the transmission of mitochondrial diseases and demonstrated the amelioration of age-associated hallmarks by partial cellular reprogramming. In August 2018, he joined the Department of Pharmacology and Toxicology at the University of Lausanne as Assistant Professor and will continue his work on aging, cellular reprogramming and mitochondrial diseases.

Thierry**PEDRAZZINI**

Prof. Thierry Pedrazzini obtained his PhD from the University of Lausanne, Switzerland. After a period of training at the Scripps Clinic and Research Foundation in San Diego, CA, he returned to Switzerland to take a position at the University of Lausanne Medical School. He is Associate Professor and faculty member since 2003, and has been appointed Director of the Experimental Cardiology Unit at the Department of Medicine. His research is focused on the molecular and cellular mechanisms controlling the adaptation of the heart to myocardial infarction. His laboratory is particularly interested in mechanisms that could lead to regeneration of the damaged myocardium. More recently, his group has developed a strong interest in long noncoding RNAs that are transcribed in the stressed heart. In particular, cardiac enhancer-associated long noncoding RNAs appear to play important roles in the response to developmental and environmental cues. This new class of molecules represents therefore novel therapeutic targets for the treatment of heart failure.

Yigal**PINTO**

Yigal Pinto is professor of Cardiology at the University of Amsterdam. His research focuses on genetic and RNA based mechanisms in the failing heart. As an active clinician he strives to use basic biology to deepen clinical understanding and ultimately treatment. For instance, the work of his group has changed the treatment of patients with a cardiomyopathy due to Lamin A/C mutations. In addition his group was the first to identify a novel class of heart specific circular RNAs.

**Paul
Richard****RILEY**

Paul Riley is a Fellow of the Academy of Medical Sciences (elected 2014) and is the British Heart Foundation (BHF) Professor of Regenerative Medicine. He currently occupies the Chair of Development and Cell Biology in the Department of Physiology, Anatomy and Genetics at the University of Oxford. He is Director of the BHF Oxbridge Centre for Regenerative Medicine (from 2013; <https://www.cardioscience.ox.ac.uk/bhf-centre-of-regenerative-medicine>); co-founder of the Oxford spin-out OxStem Cardio (from 2016; <https://www.oxstem.com/product-pipeline/cardio>) and co-academic lead on the Oxford Medical Sciences Division's Institute of Developmental and Regenerative Medicine (project completion 2021; <https://www.bhf.org.uk/research-projects/funding-towards-a-new-oxford-institute-of-developmental-and-regenerative-medicine-idrm>). He was formerly Professor of Molecular Cardiology at the UCL-Institute of Child Health, London, where he was a principal investigator within the Molecular Medicine Unit at UCL-ICH (1999-2011). Prior to this, he obtained his PhD at UCL (1992-1995) and completed post-doctoral fellowships at the Samuel Lunenfeld Research Institute, Toronto, Canada and the Weatherall Institute of Molecular Medicine, Oxford (1996-1999). In 2008, Professor Riley was awarded the Outstanding Achievement Award of the European Society of Cardiology (ESC) Council on Basic Sciences. Currently Professor Riley's team is focusing on exploiting the full potential of activated resident epicardium-derived cells and coronary lymphatic endothelium towards regenerating the adult heart and understanding the mechanisms of activation of these distinct lineages to extrapolate to human patients suffering from cardiovascular disease.

Anna**SABLINA**

Anna Sablina is a group leader at the VIB Center for Cancer Biology and an associate professor at the University of Leuven. She studied biochemistry at the Moscow State University, Russia, completed a PhD program at the Cancer Research Center in Moscow, and post-doctoral fellowships at the Cleveland Clinic Foundation, Cleveland, and the Dana Farber Cancer Institute, Boston, USA. In 2009, she started as a group leader at VIB and a professor position at the University of Leuven. Since the start of her career as an independent researcher, she received several prizes, including the Swiss Bridge Award, Switzerland, and the EMBO Young Investigator Award, Germany. In 2018, she received an ERC Consolidator Grant from the European Research Council.

The focus of Anna Sablina's laboratory is to elucidate the role of ubiquitin system in human disease. To achieve this, she has been taking a multi-faceted approach; combining mouse modelling techniques with comprehensive biochemical and genetics studies.

Petar**SEFEROVIC**

Petar M. Seferović, MD, PhD, FESC, FACC is the President of the Heart Failure Association of the European Society of Cardiology and Head of Heart failure Department, University Medical Center in Belgrade. He has also the position of Chair of Internal medicine at Belgrade University School of Medicine. In 2012, he was elected the Corresponding member of Serbian Academy of Sciences and Arts. He is a founder and President of Heart Failure Society of Serbia and member of the Board of the Heart failure Association of the ESC. His scientific and clinical interests include heart failure, myocardial and pericardial disease and diabetes/cardiovascular disease interactions. He was the member of the several Task forces for writing ESC Guidelines and position papers. He has authored more than 500 scientific papers, 160 of them as a first author, several books and book chapters. He was instrumental in organizing various scientific meetings, including Annual Heart Failure Congress in Belgrade in 2012.

Christine**SEIDMAN**

Christine Seidman, MD is the Thomas W. Smith Professor of Medicine and Genetics at Harvard Medical School and Brigham and Women's Hospital. She is an Investigator of the Howard Hughes Medical Institute. She was an undergraduate at Harvard College and received her M.D. from George Washington University School of Medicine. After clinical training in Internal Medicine at John Hopkins Hospital, Seidman received subspecialty training in cardiology at the Massachusetts General Hospital. She practices at the Brigham and Women's Hospital and is the founding Director of the BWH Cardiovascular Genetics Center. Composed of a multidisciplinary team of physicians and scientists, the BWH Cardiovascular Genetics Center provides unparalleled clinical care to cardiomyopathy patients and their families by capitalizing on basic science discoveries that inform treatment strategies.

Seidman co-directs a basic research laboratory within the Department of Genetics at Harvard Medical School. Her research aims to discover genes, mutations, and mechanisms for human heart muscle disorders. Seidman has identified genetic causes for hypertrophic cardiomyopathy and dilated cardiomyopathy, defined the consequences of mutations on biophysical properties of sarcomeres, and described cell and molecular responses to these abnormalities. From studies of genetic causes for congenital heart malformations, she has uncovered transcriptional pathways that are critical for normal heart development. Seidman's accomplishments have garnered many honors, including the Fondation Lefoulon-Delalande Le Grande Prix for Cardiovascular Research awarded by the Academie de Science, - Institut de France, Distinguished Scientist Award of the American Heart Association, Fellow of the American Academy of Arts and Sciences, and membership in the National Academy of Medicine and the National Academy of Sciences.

Ajay**SHAH**

Ajay Shah is British Heart Foundation Chair of Cardiology and James Black Professor of Medicine at King's College London, UK. He is also the Director of the King's British Heart Foundation Centre of Research Excellence. He is a graduate of the University of Wales College of Medicine in Cardiff and also trained in Cardiology there. He undertook doctoral training with Andrew Henderson (Wales) and Dirk Brutsaert (Belgium), and postdoctoral training with Edward Lakatta (NIH, Baltimore). He was appointed Chair of Cardiology at King's in 1998. Professor Shah's main research interests are in pathophysiology of heart failure with particular focus on the role of redox signalling, NADPH oxidases and neuronal nitric oxide synthase. He is a practising cardiologist with interests in heart failure and interventional cardiology. He is a Fellow of the UK Academy of Medical Sciences, the European Society of cardiology, the American Heart Association and the International Society for Heart Research.

Thomas**THUM**

Prof. Thum studied Medicine at the Medical School in Hannover and finished his MD in 2001. He worked at the Department of Clinical Pharmacology as well as at the Fraunhofer Institute ITEM (Hannover) from 2001-2004. From 2004 he worked as a Physician at the Julius-Maximilians University in Würzburg, Germany and became Specialist in Internal Medicine 2009 as well as in Cardiology in 2010. In parallel in 2008 he finished a PhD degree in Molecular Cardiology at the National Heart and Lung Institute of the Imperial College in London, UK. In Oct. 2009 he became Full Professor and Director of the Institute of Molecular and Translational Therapeutic Strategies at the Hannover Medical School. From June 2013 he is additional Visiting Professor of Cardiology at the National Heart and Lung Institute at Imperial College London.

**Carlo
Gabriele**



TOCCHETTI

Prof. Carlo Gabriele Tocchetti got his MD in 1997, his Board in Cardiology in 2001 and his PhD in 2007 at Federico II University, Naples, Italy, and is currently Associate Professor of Medicine in the Department of Translational Medical Sciences, Federico II University, Naples, Italy since 2014, where he coordinates the Heart Failure outpatient unit and has established himself as a HF basic and clinical investigator. Prof. Tocchetti is Fellow of the HFA, member of the Study Group on Cardio-Oncology of the HFA and of the WG on Myocardial Function of the ESC, and previous member of the Translational Research Committee of the HFA.

His previous studies and ongoing collaborations with Drs Kass and Paolocci in Baltimore have helped dissecting the cardiac contractile effects of HNO and the development of a novel HNO donor for treating human heart failure currently used in clinical trials. Hence, the main goal of his lab is to explore pathophysiologic mechanisms and therapeutic targets in cardiac dysfunction, with a particular interest on post-ischemic HF, genetic and inflammatory cardiomyopathies, Pulmonary Hypertension and RV dysfunction, and HF due to antineoplastic therapies, including novel anticancer immunotherapies and biologic drugs employed in inflammatory diseases.

Jolanda



VAN DER VELDEN

Jolanda van der Velden, PhD, is chair of the Department for Physiology at the VU University Medical Center in Amsterdam, and director of the Amsterdam Cardiovascular Sciences Institute together with Mat Daemen (Academic Medical Center in Amsterdam). Since 2012 van der Velden is professor of the Netherlands Heart Institute. The main research interest of the van der Velden group is to study the role of sarcomeric proteins in cardiac performance for which specific protein analyses and functional assays have been designed. As mutations in sarcomeric proteins are a frequent cause of heart disease at young age, research on this topic was initiated with funding from European and prestigious national grants. The national CVON-consortium (DOSIS) funded by the Netherlands Heart Foundation aims to study genetic and environmental effects in cardiomyopathy development. The translational research projects help to build sufficient proof to initiate clinical trials to prevent disease at an early stage of cardiomyopathy. In 2017 van der Velden received the Outstanding Investigator Award of the International Society for Heart Research.

Linda



VAN LAAKE

Assistant Professor Cardiology, University Medical Center and Hubrecht Institute, Utrecht, NL. Member of the HFA Committee on Translational Research, Nucleus Member of the ESC Working Group Cellular Biology of the Heart, Member of the WG Myocardial Function. Founding Member of the Young Health Council (2011-2013), Recipient of the Heineken Young Scientist Award of the Royal Netherlands Academy of Arts and Sciences (KNAW) (2012). Education: MD (2004) Maastricht University, PhD (2008) Utrecht University, postdoctoral fellowship Gladstone Institutes, University of California San Francisco, USA (2008-2009), Post-graduate Course Heart Failure, University of Zurich and HFA/European Heart Academy (2015). Research: Cardiac regeneration and repair. A focus on the understanding of fundamental cardiac developmental – and repair processes will promote the recapitulation of cardiac differentiation in vitro. Currently, the team is investigating the influence of circadian or “day-night” rhythms on cardiac development and regeneration. Combining a variety of novel approaches together with a greater understanding of how heart development and repair work, Dr. Van Laake and her team strive to create better personalized heart failure therapies.

Ewa



VAN ROOIJ

Eva van Rooij is group leader at the Hubrecht Institute and professor of Molecular Cardiology at the University Medical Center Utrecht. Her group aims to unveil the molecular signaling pathways that are relevant for cardiac disease. The Van Rooij group combines mouse genetics and models of heart disease with novel sequencing technologies such as single-cell sequencing and tomo-seq to identify key factors important for specific remodeling and repair processes of the heart. The ultimate goal is to identify pathways that can eventually lead to effective treatment options to minimize the loss of cardiomyocytes and/or reverse the adverse remodeling processes in the diseased heart.

Serena**ZACCHIGNA**

Serena Zacchigna received her MD at the University of Trieste (Italy) in 2000. After her PhD at the International School for Advanced Studies (ISAS), Italy, she moved to Peter Carmeliet Laboratory at VIB in Leuven (Belgium) as a Marie-Curie post-doctoral research fellow from 2006-2008 to work on the neurovascular link. In 2009 she returned to Trieste, where she first joined the Molecular Medicine Laboratory at the International Centre for Genetic Engineering and Biotechnology (ICGEB) and then established her own research group in 2015. At ICGEB she currently leads the Cardiovascular Biology Laboratory and acts as the Scientific Head of the Bioexperimentation Facility. She also represents the ICGEB at the UN Agency Committee for Bioethics, which serves as a key inter-agency mechanism for sharing information between intergovernmental organizations dealing with bioethical issues, with particular interest in the regulatory and ethical aspects governing the use of gene therapy, genome editing and cell therapy in the various countries. Since 2016 she joined the Medical Department of the University of Trieste. Her work focuses on the cross-talk between the various cell types residing in the heart during development and disease. In particular, she is dissecting the molecular mechanisms mediating the communication between endothelial cells and cardiomyocytes, with the ultimate goal of promoting effective neo-vascularization following heart ischemia.