# 2nd OLYMPIAD IN CARDIOVASCULAR MEDICINE

## INTERNATIONAL SYMPOSIUM ON EXPERIMENTAL & CLINICAL CARDIOLOGY

**April 27-30, 2022**

Heraklion, Crete, Greece

# FINAL PROGRAM

## ORGANIZED BY:

**Masonic Medical Research Institute, Utica, NY, USA**

**April 27-30, 2022**

Galaxy Hotel Heraklion, 75 Dimokratias Avenue, 71306, Heraklion, Crete, Greece

## CHAIRS *(alphabetically)*

**Konstantinos Drosatos**, *PhD*, **Maria Kontaridis**, *PhD*

## HONORARY CHAIR

**Litsa Kranias**, *PhD*

## ORGANIZING COMMITTEE *(alphabetically)*

**Dimitrios V. Avgerinos**, *MD, PhD, Onassis Heart Center, Greece*

**Dimitris Beis**, *PhD, Biomedical Research Foundation, Academy of Athens, Greece*

**Yassemi Capetanaki**, *PhD, Biomedical Research Foundation, Academy of Athens, Greece*

**Konstantinos Charitakis**, *University of Texas Houston, USA*

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**Gemma Figtree**, *MBBS, DPhil (Oxon), FRACP, FCSANZ, FAHA, University of Sydney, Australia*

**Nikolaos G. Frangogiannis**, *MD, Albert Einstein University, USA*

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**Walter J. Koch**, *PhD, Temple University, USA*

**Katia Kontrogianni**, *PhD, University of Maryland, USA*

**Antigone Lazou**, *PhD, Aristotle University of Thessaloniki, Greece*

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**Sakthivel Sadayappan**, *PhD, MBA, University of Cincinnati, USA*

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**Stavros Stavrakis**, *MD, PhD, University of Oklahoma, USA*

**Konstantinos Stellos**, *MD, Heidelberg University, Germany*

**Alex Spyropoulos**, *MD, FACP, FCCP, FRCPC, Hofstra, Northwell School of Medicine, USA*

**Mark Sussman**, *PhD, San Diego State University, USA*

**Alexandros D. Tselepis**, *MD, PhD, University of Ioannina, Greece*

## WELCOME MESSAGE

Dear Colleagues,

Welcome to the 2nd Olympiad in Cardiovascular Medicine in Heraklion, Crete, Greece!

We are so grateful to each of you for having travelled to Greece from all over the world to join us here in continuing this cardiovascular conference series. The 1st Olympiad in Cardiovascular Medicine in 2018 was a tremendous success! Now, the 2nd Olympiad in 2022 promises to be even greater, setting the stage for long-overdue face-to-face scientific interaction. We have built a program that will highlight the most recent advances in clinical and basic cardiovascular science, as well as provide ample time for networking and collaboration. We would like to convey our thanks and appreciation to the members of the organizing committee for putting together these exciting sessions. And importantly, we would like to take this opportunity to thank our sponsors for their tremendous support and generosity, without whom these meetings would not be possible.

The 2nd Olympiad is an international meeting, with presenters and attendees gathered from 4 continents and hosting both senior and junior scientists. Talks will focus on discussions of novel mechanisms, technological advancements, and therapeutic modalities to better treat cardiac disease and heart failure. We hope that these discussions will lead to cutting edge discoveries and identify new challenges and ways to use these technologies to cure heart disease.

Bringing top-notch experts from around the globe, to the same beautiful and serene venue, reflects one the core principles of the nearly 3000-year-old Olympiad games- to come together and succeed. Welcome again, to the birthplace of Philosophy, Science and Humanism! You, the "Cardiovascular Olympians" of this modern era, are here to present your latest discoveries, joining together in a core mission to find ways to save and improve the lives of those around the world. We wish you a pleasant stay and a productive conference!

Sincerely,

**Maria Kontaridis**, PhD
Executive Director
Masonic Medical Research Institute
Utica, NY, USA

**Konstantinos Drosatos**, PhD
University of Cincinnati
College of Medicine,
Cincinnati, OH, USA

# SCIENTIFIC PROGRAM

## DAY 1: WEDNESDAY, APRIL 27, 2022

**ARRIVALS: Monday and Tuesday (April 25 - 26, 2022)**

## DAY 1: WEDNESDAY, APRIL 27, 2022

### POSTER AREA: PARK MEETING ROOM

14:00-14:45 MODERATED POSTER SESSION

*Chairs*

***Dimitris Beis**, BRF Academy of Athens, Greece*

***Dimitris Kardassis**, University of Crete, Greece*

**P01 Aortic valve neocuspidization using the Ozaki technique: A meta-analysis of patient-level data**

Konstantinos S. Mylonas[1], Panagiotis Tasoudis[2], Dionysios Pavlopoulos[1], Meletios Kanakis[1], George Stavridis[1], **Dimitrios Avgerinos**[1]

*[1]Onassis Cardiac Surgery Center, [2]Faculty of Medicine, School of Health Sciences, University of Thessaly*

**P02 EPAS1 directs a network of genes implicated in mitochondrial dysfunction in arrhythmogenic cardiomyopathy**

**Sebastiaan van Kampen**[1], Eirini Kyriakopoulou[1], Su Ji Han[1], Kees Jan Boogerd[1], Petra van der Kraak[2], Aryan Vink[2], Eva van Rooij[1]

*[1]Hubrecht Institute, Royal Netherlands Academy of Arts and Sciences (KNAW) and University Medical Centre Utrecht, [2]University Medical Centre Utrecht*

**P03 Restoring levels of PKP2 as a novel therapeutic approach for Arrhythmogenic cardiomyopathy**

**Eirini Kyriakopoulou**[1], Danielle Versteeg[1], Sebastiaan J van Kampen[1], Mauro Giacca[2,3], Eva van Rooij[1,4]

*[1]Hubrecht Institute, Royal Netherlands Academy of Arts and Sciences (KNAW), [2]King's College London, British Heart Foundation Centre of Research Excellence, School of Cardiovascular Medicine & Sciences, [3]Department of Medical, Surgical and Health Sciences, University of Trieste, [4]Department of Cardiology, University Medical Centre Utrecht*

**P04 Circadian regulation of mitophagy and mitochondrial function in the heart**

Mariame Kane, Gloria Benavides, Edie Osuma, Helen Collins, Yecheng He, Silvio Litovsky, Kasturi Mitra, John Chatham, Victor Darley-Usmar, Martin Young, **Jianhua Zhang**

*Uab*

## SCIENTIFIC PROGRAM

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**P05 M6A RNA methylation as a mediator of heart response to mechanical overload**

**Fabiana Martino**, Maryam Anwar, Laura Nicastro, Prakash Punjabi, Cesare Terracciano, Costanza Emanueli

*National Heart and Lung Institute, Imperial College London*

**P06 FIMICS: a panel of long noncoding RNA biomarkers for cardiovascular conditions**

**Shounak Baksi**[1], Huseyin Firat[2], Lu Zhang[1], Przemyslaw Leszek[3], Eric Schordan[2], Samir Ounzain[4], Thierry Pedrazzini[5], Yvan Devaux[1]

*[1]Cardiovascular Research Unit, Luxembourg Institute of Health, [2]Firalis SA, [3]The Heart Failure and Transplantology Department, Institute of Cardiology, [4]HAYA Therapeutics, [5]Experimental Cardiology Unit, Department of Cardiovascular Medicine, University of Lausanne Medical School*

**P07 A procedure for the in vitro evaluation of the immunosuppressive effect of mesenchymal stem cells**

**Catalina Iolanda Marinescu**, Mihai Bogdan Preda, Alexandrina Burlacu

*Institute Of Cellular Biology and Pathology N. Simionescu*

**P08 Single-cell transcriptomics provides insights into hypertrophic cardiomyopathy**

**Martijn Wehrens**[1], Anne E De Leeuw[1], Maya Wright Clark[1], Joep Eding[1], Cornelis Boogerd[1], Bas Molenaar[1], Petra Van der Kraak[2], Diederik Kuster[3], Jolanda Van der Velden[3], Michelle Michels[4], Aryan Vink[2], Eva Van Rooij[1]

*[1]Hubrecht Institute, Royal Netherlands Academy of Arts and Sciences (KNAW) and University Medical Center, [2]Department of Pathology, University Medical Center Utrecht, [3]Department of Physiology, Amsterdam UMC, Vrije Universiteit van Amsterdam, [4]Department of Cardiology, Erasmus MC*

**P10 Local microenvironment activates in vivo apoptosis of mesenchymal stromal cells after transplantation**

**Bogdan Mihai Preda**, Carmen Alexandra Neculachi, Ioana Madalina Fenyo, Ana-Maria Vacaru, Mihai Alin Publik, Maya Simionescu, Alexandrina Burlacu

*Institute Of Cellular Biology and Pathology N. Simionescu*

**P11 Mechanical load affects the regulation of contractility of myocardial slices via extracellular vesicles**

**Laura Nicastro**

*Imperial College London*

## SCIENTIFIC PROGRAM

DAY 1: WEDNESDAY, APRIL 27, 2022

**P12 Drug Screening in Human iPSC-Cardiomyocytes Identifies Serine Biosynthesis Pathway as a novel Therapeutic Target for Dilated Cardiomyopathy**

Isaac Perea-Gil[1,2], Timon Seeger[3,4], Arne A.N. Bruyneel[1,5], Vittavat Termglinchan[1,2], Emma Monte[6], Esther W. Lim[7], Nirmal Vadgama[2], Takaaki Furihata[6], Alexandra A. Gavidia[2], Jennifer Arthur Ataam[1,2], Nike Bharucha[1,2], Noel Martinez-Amador[2], Mohamed Ameen[1,2], Pooja Nair[2], Ricardo Serrano[1,5], Balpreet Kaur[2], Dries A.M. Feyen[1,5], Sebastian Diecke[8], Michael P. Snyder[6], Christian M. Metallo[7,9], Mark Mercola[1,5], Ioannis Karakikes[1,2]

*[1]Cardiovascular Institute, Stanford School of Medicine, [2]Department of Cardiothoracic Surgery, Stanford School of Medicine, [3]Department of Medicine III, University Hospital Heidelberg, [4]German Center for Cardiovascular Research (DZHK), Partner Site Heidelberg/Mannheim, [5]Department of Medicine, Division of Cardiovascular Medicine, Stanford School of Medicine, [6]Department of Genetics, [7]Department of Bioengineering, [8]Max-Delbrueck-Center for Molecular Medicine, [9]Molecular and Cell Biology Laboratory, Salk Institute for Biological Studies*

**P13 MiRNAs generated from Meg3-Mirg locus are downregulated during aging**

Evelyn Gabriela Nastase-Rusu[1], Ana-Mihaela Lupan[2], Mihai Bogdan Preda[1], Catalina Iolanda Marinescu[1], Alexandrina Burlacu[1]

*[1]Institute for Cellular Biology and Pathology "Nicolae Simionescu", [2]Cell Biology, Harvard Medical School*

**P14 Deletion of MyD88 in T-cells Worsens Non-Ischemic Heart Failure Through Enhanced T-cell Survival and Induction of Cardiac Fibrosis**

Abraham Bayer[1], Sasha Smolgovsky[1], Mark Aronovitz[2], Njabulo Ngwenyama[1], Kuljeet Kaur[1], Pilar Alcaide[1]

*[1]Department of Immunology, Tufts Graduate School of Biomedical Sciences, [2]Molecular Cardiology Research Institute, Tufts Medical Center*

**P15 VAPB Physically Interacts with Phospholamban in Mouse Ventricular Cardiomyocytes**

Dana El Chami[1,2,3], Tatiana Pochechueva[1,2,3], Daniel Kownatzki-Danger[1,2,3], Stephan E. Lehnart[1,2,3,4,5]

*[1]Cellular Biophysics and Translational Cardiology Section, Heart Research Center Göttingen, [2]Department of Cardiology & Pneumology, University Medical Center Göttingen, [3]Collaborative Research Center SFB1190 "Compartmental Gates and Contact Sites in Cells", University of Göttingen, [4]Cluster of Excellence "Multiscale Bioimaging: from Molecular Machines to Networks of Excitable Cells" (MBExC2067), University of Göttingen, [5]DZHK (German Centre for Cardiovascular Research), partner site Göttingen*

## SCIENTIFIC PROGRAM

DAY 1: WEDNESDAY, APRIL 27, 2022

**P16 Mitochondrial dysfunction as an underlying cause for arrhythmogenic cardiomyopathy**

**Su Ji Han**[1], Jenny Tsui[1], Sebastiaan van Kampen[1], Jantine Monshouwer-Kloots[1], Miranda van Triest[2], Boudewijn Burgering[2], Eva van Rooij[1,3]

*[1]Hubrecht Institute, Royal Netherlands Academy of Arts and Sciences (KNAW), [2]Molecular Cancer Research, Center Molecular Medicine, University Medical Center Utrecht, [3]Department of Cardiology, University Medical Centre Utrecht*

**P17 PPARβ/δ attenuates cardiac tissue damage by regulating mitochondrial quality control and inhibiting inflammation in a genetic animal model of heart failure**

**Dimitra Palioura**[1], Kyriakos Mellidis[1], Eleftheria Galatou[1], Eleni-Taxiarchia Mouchtouri[2], Emmanuel Panteris[3], Manolis Mavroidis[2], Yassemi Capetanaki[2], Antigone Lazou[1]

*[1]Laboratory of Animal Physiology, School of Biology, Aristotle University of Thessaloniki,[2]Center of Basic Research, Biomedical Research Foundation, Academy of Athens, [3]Department of Botany, School of Biology, Aristotle University of Thessaloniki*

**PLAZA MEETING ROOM**

15:00-16:40 EARLY CAREER PANEL DISCUSSION

**After a Pandemic: Navigating the Sea of Uncertainty as an Early Career Investigator**

*Chairs*

***Konstantinos Hatzistergos**, Aristotle University of Thessaloniki, Greece*

***Jessica Pfleger**, Virginia Tech, USA*

*Panelists*

**Daan Westenbrink**, *University of Groningen, Netherlands*

**Anastasios Lymperopoulos**, *Nova Southeastern University, USA*

**Chen Gao**, *University of Cincinnati, USA*

**Jaime Rubin**, *Columbia University, USA*

**Cat A. Makarewich**, *Cincinnati Children's Hospital Medical Center, USA*

## SCIENTIFIC PROGRAM

DAY 1: WEDNESDAY, APRIL 27, 2022

**PLAZA MEETING ROOM**

16:40-18:30 MID-CAREER PANEL DISCUSSION

**Opportunities for Trans-Atlantic and Trans-Pacific Scientific Collaboration**

*Chairs*

***Sarah Franklin**, University of Utah, USA*

*Panelists*

**Gemma Figtree**, *University of Sydney, Australia*
**Sakthivel Sadayappan**, *University of Cincinnati, USA*
**Nicole Purcell**, *Huntington Medical Research Institutes, USA*

18:30-19:00 **COFFEE BREAK**

**PLAZA MEETING ROOM**

19:00-20:00 WELCOMING REMARKS

*Co-chairs of the Organizing Committee*

***Konstantinos Drosatos, Maria Kontaridis***

*Keynote Session*

*Chairs*

***Maria Kontaridis**, Masonic Medical Research Institute, USA*
***Konstantinos Stellos**, Heidelberg University, Germany*

*Keynote Lecture*

**Impaired cellular cross-talk contributes to cardiac disease and aging**
***Steffanie Dimmeler**, Goethe-Universität Frankfurt am Main, Germany*
**Introduction by Konstantinos Stellos**, *Heidelberg University, Germany*

20:00-23:00 OPENING DINNER

**Arolithos Traditional Cretan Village** *(Bus departure: Galaxy Hotel)*

## SCIENTIFIC PROGRAM

### DAY 2: THURSDAY, APRIL 28, 2022

| | PLAZA MEETING ROOM | BALLROOM MEETING ROOM |
|---|---|---|
| 08:30-09:30 | BASIC CARDIOVASCULAR SESSION<br>**Molecular and Genetic Aspects of Sarcomeric Dysfunction in Heart Disease**<br>*Chairs*<br>***Lucie Carrier**, University Medical Center Hamburg-Eppendorf, Germany*<br>***Danuta Szczesna-Cordary**, University of Miami, USA*<br>*Invited Speakers*<br>08:30 **Cardiomyocyte Hypertrophy Regulation: Beyond Transcription**<br>**Yibin Wang**, *Duke-NUS Medical School, Singapore*<br>08:45 **Role of mitochondrial Ca in cardiac physiology and ischemia-reperfusion**<br>**Elizabeth Murphy**, *National Institutes of Health, USA*<br>09:00 **Cytoskeletal regulators in health and disease**<br>**Katia Kontrogianni**, *University of Maryland, USA*<br>09:15 **Unraveling the role of Desmin in cardiac transdifferentiation, maturation and chromatin architecture**<br>**Mary Tsikitis**, *BRF Academy of Athens, Greece* | TRANSLATIONAL CARDIOVASCULAR SESSION<br>**State-of-the-Art Treatments in Structural Cardiovascular Disease**<br>*Chairs*<br>***Dimitrios Avgerinos**, Onassis Heart Center, Greece*<br>***Elias Iliadis**, Cooper Medical School of Rowan University, USA*<br>*Invited Speakers*<br>08:30 **T cells in Heart Failure and Tumor-immunotherapy cardiotoxicity**<br>**Marinos Kallikourdis**, *Humanitas Research Hospital, Italy*<br>08:45 **Dimitrios Dougenis**, *University of Athens, Greece*<br>09:00 **Basic mechanisms of osteoblastic transformation in a rabbit aortic valve stenosis model**<br>**Anousakis-Vlachochristou Nikolaos**<br>*MD, PhDc., First Department of Cardiology, Athens Medical school, NKUA & Cardiovascular Translational Research unit, BRFAA, Athens, Greece*<br>09:15 **Desmosomal degradation as an underlying cause for arrhythmogenic cardiomyopathy**<br>**Hoyee (Jenny) Tsui**, *Hubrecht Institute, Netherlands* |
| 09:30-10:00 | **COFFEE BREAK** | |

## SCIENTIFIC PROGRAM

DAY 2: THURSDAY, APRIL 28, 2022

### PLAZA MEETING ROOM

10:00-11:30 BASIC CARDIOVASCULAR SESSION

**Cytoskeleton and Mechanotransduction Defects in Heart Disease**

*Chairs*

***Henk Granzier**, University of Arizona, USA*

***Jianhua Zhang**, University of Birmingham at Alabama, USA*

Invited Speakers

10:00 **Desmin-LaminA/C Interplay in a Pathogenesis cross-talk between Laminopathy and Desminopathy**
**Yassemi Capetanaki**, *BRFAA, Greece*

10:15 **HDAC inhibition helps post-MI healing by modulating macrophage polarization**
**Donald Menick**, *Medical University of South Carolina, USA*

10:30 **Scn1b Gene and Diastolic Function**
**Marcello Rota**, *New York Medical College, USA*

10:45 **Impaired mechanoresponse in the aging heart**
**Selma Osmanagic-Myers**, *Medical University of Vienna, Austria*

11:00 **Aging, Vascular Stiffness, and Cardiovascular Disease**
**Iris Jaffe**, Tufts Medical Center, USA

11:15 **Cardiomyocyte proliferation is suppressed by ARID1A-mediated YAP inhibition during cardiac maturation**
**Cornelis Boogerd**, *Hubrecht Institute, The Netherlands (selected for short talk)*

### BALLROOM MEETING ROOM

TRANSLATIONAL CARDIOVASCULAR SESSION

**Challenges in Clinical Cardiology**

*Chairs*

***Polydoros Kampaktsis**, New York University Langone Medical Center, USA*

***Demetri Yannopoulos**, University of Minnesota, USA*

Invited Speakers

10:00 **Using high pressures for matter state transformations to facilitate the delivery of large volumes of oxygen intravenously for emergency cardiovascular care**
**Demetri Yannopoulos**, *University of Minnesota, USA*

10:20 **Misfolded proteins in the heart and vessels. New evidence in an evolving era of cardiovascular disease**
**Kimon Stamatelopoulos**, *University of Athens, Greece*

10:40 **Reduced CaMKII signaling in sinoatrial node from heart failure mice**
**Ana M. Gomez**, *Inserm, France (selected from abstract)*

11:00 **Molecular and functional characterization of a novel mutation in the cardiac ryanodine receptor (RyR2) associated with Long QT Syndrome**
**Carmen Valdivia**, *University of Wisconsin, USA (selected for short talk)*

11:30-11:45 **COFFEE BREAK**

## SCIENTIFIC PROGRAM

DAY 2: THURSDAY, APRIL 28, 2022

| | PLAZA MEETING ROOM | BALLROOM MEETING ROOM |
|---|---|---|
| 11:45-13:00 | BASIC CARDIOVASCULAR SESSION TOPIC<br>**Biological Mechanisms of Cardiac Fibrosis**<br><br>*Chairs*<br>***Anastasios Lymperopoulos**, Nova Southeastern University, USA*<br>***Maria Mirotsou**, Merck Research Laboratories, USA*<br><br>*Invited Speakers*<br>11:45 **The role of pericytes in cardiac fibrosis after myocardial infarction**<br>**Reza Ardehali**, *UCLA, USA*<br>12:00 **Spurious Intragenic Transcription in Heart Failure Pathogenesis**<br>**Jiang Chang**, *Texas A&M University, USA*<br>12:15 **Requirement of cardiac fibroblasts in homeostatic and pathologic conditions**<br>**Michelle Tallquist**, *University of Hawaii, USA*<br>12:30 **Targeting Eicosanoid Degradation in Fibroblasts to Treat Cardiac Fibrosis**<br>**Tim McKinsey**, *University of Colorado, USA*<br>12:45 **Epigenetic Control of Fibroblast and Inflammatory Cell Plasticity in the Failing Heart**<br>**Saptarsi Haldar**, *University of California, San Francisco, USA* | TRANSLATIONAL CARDIOVASCULAR SESSION<br>**New Frontiers in Arrhythmia Treatment: From Mechanisms to Therapy**<br><br>*Chairs*<br>***Samuel Dudley**, Lillehei Heart Institute, USA*<br><br>*Invited Speakers*<br>11:45 **Manipulating the Autonomic Nervous System to Treat Arrhythmias: From Bench to Bedside**<br>**Stavros Stavrakis**, *University of Oklahoma, USA*<br>12:05 **AAV-mediated gene therapy for the treatment of cardiac arrhythmias**<br>**Xander Wehrens**, *Baylor College of Medicine, USA*<br>12:25 **Atrial cardiomyopathies: Many roads lead to AF**<br>**Niels Voigt**, *University Medical Center Gottingen, Germany* |
| 13:00-13:30 | **LUNCH BREAK** | |

## SCIENTIFIC PROGRAM

DAY 2: THURSDAY, APRIL 28, 2022

### POSTER AREA: PARK MEETING ROOM

13:30-14:15 MODERATED POSTER SESSION

*Chair* ***George Kararigas****, University of Iceland, Iceland*

**P18 Evaluation of DOX-Induced Cardiotoxicity by miR-484 Expression in Breast Cancer Patients**

**Dilara Buse Durdabak**[1], Soner Doğan[2], Mehmet Eser[3], Kayhan Başak[4], Bilge Güvenç Tuna[1]

*[1]Department of Biophysics, Faculty of Medicine, Yeditepe University, [2]Department of Medical Biology, Faculty of Medicine, Yeditepe University, [3]Department of Surgery, Faculty of Medicine, Istinye University, [4]Department of Pathology, University of Health Sciences, Kartal Dr.Lütfi Kırdar City Hospital*

**P19 Dissecting phospholamban (PLN) p.Arg14del cardiomyopathies on the proteome level**

**Christof Lenz**[1,2], Hugo Amedei[1], Brian Foo[1], Stephan Lehnart[1,3]

*[1]University Medical Center Göttingen, [2]Max Planck Institute for Multidisciplinary Sciences, [3]DZHK (German Centre for Cardiovascular Research)*

**P20 The RNA-binding protein QKI governs a muscle-specific alternative splicing program that shapes the contractile function of cardiomyocytes**

**Pablo Montañés-Agudo**, Aufiero Simona, Ingeborg van der Made, Eva N. Schepers, Pinto Yigal M., Esther E. Creemers

*Amsterdam UMC - Academic Medical Center*

**P21 Loss of a ttn-derived circRNA leads to sex-specific cardiac remodeling in mice**

**Lucía Cócera Ortega**[1], Ingeborg van der Made[1], Dylan k. de Vries[1], Mischa Klerk[2], Selina C. Kamps[1], Gerard J.J. Boink[2], Yigal M. Pinto[1], Anke J. Tijsen[1]

*[1]Experimental Cardiology, Amsterdam UMC, [2]Medical Biology, Amsterdam UMC*

**P22 Aberrant PLN-R14del associations underlying impaired Ca2+ handling and arrhythmogenesis**

**Elizabeth Vafiadaki**[1], Kobra Haghighi[2], Evangelia G. Kranias[2], Despina Sanoudou[1,3]

*[1]Molecular Biology Division, Biomedical Research Foundation, Academy of Athens, [2]Department of Pharmacology and Systems Physiology, University of Cincinnati College of Medicine, [3]Clinical Genomics and Pharmacogenomics Unit, 4th Department of Internal Medicine, Medical School, National and Kapodistrian University of Athens*

## SCIENTIFIC PROGRAM

DAY 2: THURSDAY, APRIL 28, 2022

**P23 A CRISPR/Cas9-induced mutant zebrafish line reveals the essential role of cfdp1 in cardiac development and function**

Panagiota Giardoglou[1,2], Vasiliki Tsata[1], Panos Deloukas[3], George Dedoussis[2], Dimitris Beis[1]

*[1]Biomedical Research Foundation Academy of Athens, [2]Harokopio University of Athens, [3]Clinical Pharmacology, William Harvey Research Institute, Barts and The London Medical School, Queen Mary University of London*

**P24 A SEC-MS workflow to identify changes in the cardiac protein complexome caused by the pathogenic R14del phospholamban mutation**

Hugo Amedei[1], & Brian Foo[2], Daniel Kownatzki-Danger[2], Fabio Trebini[1], Lisa Neuenroth[1], Stephan Lehnart[2], Christof Lenz[1,3]

*[1]University Medical Center Göttingen, Department of Clinical Chemistry, [2]University Medical Center Göttingen, Clinic for Cardiology and Pneumology, [3]Max Planck Institute for Multidisciplinary Sciences*

**P25 Fine-tuning the inflammatory response following cardiac injury to promote cardiac regeneration**

Dimitrios Grivas, Stelios Psarras, Dimitris Beis

*[1]Biomedical Research Foundation, Academy of Athens (BRFAA)*

**P26 Prime editing to correct the LMNA Q493X mutation in human induced pluripotent stem cells.**

Dylan K. de Vries, Ingeborg van der Made, Anouk van den Bout, Selina C. Kamps, Lucía Cócera Ortega, Yigal M. Pinto, Anke J. Tijsen

*Experimental Cardiology, Amsterdam Cardiovascular Sciences, Amsterdam UMC, University of Amsterdam*

**P27 Human engineered cardiac tissues recapitulate the functional phenotype of a phospholamban mutation-related cardiomyopathy.**

Irene Turnbull[1], Serena Chang[1], Francesca Stillitano[1,2], Kevin D. Costa[1]

*[1]Icahn School of Medicine at Mount Sinai, [2]University Medical Center Utrecht*

**P28 The Effects of Different Types of Calorie Restriction on Transglutaminase 2 (TG2) in Aorta of Aging Mice**

Elif Oztemiz[1], Phd Student Aysenur Dogan[2], Atakan Ayden[2], Soner Dogan[2], Aysegul Kuskucu[3], Omer Faruk Bayrak[3], Bilge Guvenc Tuna[1]

*[1]Department of Biophysics, Faculty of Medicine, Yeditepe University, Istanbul, Turkey, [2]Department of Medical Biology, Faculty of Medicine, Yeditepe University, Istanbul, Turkey, [3]Department of Medical Genetics, Faculty of Medicine, Yeditepe University, Istanbul, Turkey*

**P29 Integrative single-cell analysis identifies developmental trajectories of cardiogenesis and noncoding mutations in congenital heart disease**

**Mr. Mohamed Ameen**[1], Dr. Laksshman Sundaram[1], Dr. Mengcheng Shen[1], Dr. Kevin Wang[1], Dr. Ioannis Karakikes[1]

*Stanford University, Stanford, United States*

**P30 Circadian and infradian rhythms of cardiac L-type Ca2+ channel transcription**

Ms Estelle Personnic, Ms Pascale Gerbaud, Dr Ana M Gómez, Dr Romain Perrier, **Phd Jean-pierre Benitah**

*Inserm, UMR-S 1180, Signalisation et Physiopathologie Cardiovasculaire, Université Paris-Saclay, Châtenay-Malabry, France*

**P31 Activation of nuclear receptor PPARβ/δ improves mitochondrial respiratory function during myocardial I/R**

**Ms Ioanna Papatheodorou**[1], Dr Marina Makrecka-Kuka[2], Dr Janis Kuka[2], Dr Edgars Liepinsh[2], Dr Maija Dambrova[2,3], Dr Antigone Lazou[1]

*[1]Laboratory of Animal Physiology, Department of Zoology, School of Biology, Aristotle University of Thessaloniki, 54124 Thessaloniki, , Greece, [2]Latvian Institute of Organic Synthesis, Aizkraukles Str 21, LV1006, Riga, , Latvia, [3]Riga Stradins University, Faculty of Pharmacy, LV1007, Riga*

**P33 The desmin-deficient mouse: A model to reveal reverse cardio-oncology interplays?**

Dr. Nikolaos Paschalidis[1], Mr Konstantinos Ntatsoulis[2], **Dr. Stelios Psarras**[2]

*[1]Center of Clinical Experimental Surgery and Translational Research, Biomedical Research Foundation of the Academy of Athens (BRFAA), Athens, Greece, [2]Center of Basic Research, Biomedical Research Foundation of the Academy of Athens (BRFAA), Athens, Greece*

**P34 Revealing cellular interactions reflecting and modulating adverse cardiac remodeling with a genetic heart failure model**

Mr Konstantinos Ntatsoulis[1], Ms Anastasia Zacharia[1], Ms Angeliki Sitara[1], Mr Manolis Pathiakis[1], Dr Dimitris Beis[2], Dr Yassemi Capetanaki[1], **Dr. Stelios Psarras**[1]

*[1]Center of Basic Research, Biomedical Research Foundation of the Academy of Athens (BRFAA), Athens, Greece, [2]Center of Clinical Experimental Surgery and Translational Research, Biomedical Research Foundation of the Academy of Athens (BRFAA), Athens, Greece*

## SCIENTIFIC PROGRAM

DAY 2: THURSDAY, APRIL 28, 2022

**PLAZA MEETING ROOM**

14:30-15:45 JOINT BASIC & TRANSLATIONAL SESSION TOPIC

**It's Time to Translate: Innovative Studies in Heart Failure**

*Chair* ***Konstantinos Stellos***, *Heidelberg University, Germany*

*Invited Speakers*

14:30 **RNA modifications in Ischemic Heart Disease**
**Konstantinos Stellos**, *Heidelberg University, Germany*

14:45 **Glucose Metabolism and Heart Failure**
**E. Dale Abel**, *University of Iowa, USA*

15:00 **Novel Small Molecule Inhibition of GRK2 in Multiple Models of Heart Failure**
**Walter J. Koch**, *Temple University, USA*

15:15 **Cardiac repair with hiPSC heart muscle patches**
**Thomas Eschenhagen**, *University Medical Center Hamburg-Eppendorf, Germany*

15:30 **mRNA modification: at the heart of stress adaptation**
**Federica Accornero**, *Ohio State University, USA*

15:45-16:00 **COFFEE BREAK**

16:00-17:15 JOINT BASIC & TRANSLATIONAL SESSION TOPIC

**Recent Advances in Inherited Cardiomyopathies: Pathways to Treatments**

*Chairs* **Erini Marouli**, *William Harvey Research Institute, Queen Mary University of London, UK*
**Junco Warren**, *Virginia Tech, USA*

*Invited Speakers*

16:00 **Dysregulation of Ca2+ Homeostasis in Hypertrophic Cardiomyopathy: If and What to Target?**
**Jil Tardiff**, University of Arizona, USA

16:15 **Cardiac Sarcomere Protein Quality Control and BAG3: Repairing the Engine Without Stopping the Car**
**Jonathan Kirk**, *Loyola University, USA*

16:30 **Molecular mechanism of hypertrophic cardiomyopathy in South Asians**
**Sakthivel Sadayappan**, *University of Cincinnati, USA*

16:45 **Myosin modulation as a treatment for inherited cardiomyopathies**
**Leslie Leinwand**, *University of Colorado, USA*

17:00 **A point mutation in the M-domain of cMyBP-C is lethal in the homozygous state**
**Samantha Harris**, *University of Arizona, USA*

## SCIENTIFIC PROGRAM

DAY 2: THURSDAY, APRIL 28, 2022

17:15-17:30 **COFFEE BREAK**

**PLAZA MEETING ROOM**

17:30-18:45 JOINT BASIC & TRANSLATIONAL SESSION TOPIC

**Novel Signaling Pathways as Therapeutic Targets for Heart Failure and Hypertrophy**

*Chairs* **Emmanuel Tampakakis**, *Johns Hopkins Medical Institute, USA*

*Invited Speakers*

17:30 **Conspiracy of Comorbidities: Meta-inflammation and HFpEF**
**Joseph Hill**, *UT Southwestern, USA*

17:45 **Proliferative growth mechanisms in the developing heart**
**Konstantinos Hatzistergos**, *Aristotle University of Thessaloniki, Greece*

18:00 **Novel therapeutic targets for HFpER**
**Joshua Hare**, *University of Miami, USA*

18:15 **Cardiac Remodeling and Dysfunction in Hypertrophic Cardiomyopathy**
**Sumanth Prabhu**, *Washington University School of Medicine in St. Louis, USA*

18:30 **Proinflammatory T Cells with Downregulated Unfolded Protein Response Genes Contribute to Experimental Heart Failure with Preserved Ejection Fraction (HFpEF)**
**Sasha Smolgovsky**, *Tufts University, USA (selected for short talk)*

## SCIENTIFIC PROGRAM

### DAY 3: FRIDAY, APRIL 29, 2022

| | PLAZA MEETING ROOM | BALLROOM MEETING ROOM |
|---|---|---|
| 08:15-09:45 | BASIC CARDIOVASCULAR SESSION<br>**Inflammation in Myocardial Diseases** | TRANSLATIONAL CARDIOVASCULAR SESSION<br>**Lipids, Inflammation and Vasculature** |
| | *Chairs*<br>***Sadia Mohsin**, Temple University, USA*<br>***Stelios Psarras**, BRF Academy of Athens, Greece* | *Chairs*<br>***Evangelos Liberopoulos**, University of Ioannina, Greece*<br>***Prabhakara Nagareddy**, Ohio State University, USA* |
| | *Invited Speakers* | *Invited Speakers* |
| | 08:15 **T cell immune responses in cardiac remodeling**<br>**Pilar Alcaide**, *Tufts University, USA* | 08:15 **Optimization of measurement of mitochondrial electron transport activity in frozen heart samples**<br>***Victor Darley-Usmar**, University of Alabama at Birmingham, USA* |
| | 08:35 **Receptor-mediated regulation of myeloid cells in cardiac health and disease**<br>**Douglas Tilley**, *Temple University, USA* | 08:30 **Zebrafish regenerate their heart, medaka fish do not; is the immune response key?**<br>***Didier Stainier**, Max Planck Institute for Heart and Lung Research, Germany* |
| | 08:55 **Macrophage Mechanisms of Cardiac Repair**<br>**Edward Thorp**, *Northwestern University, USA* | 08:45 **Resolving Inflammation in Atherosclerosis Independent of Lipid Lowering: insights from mice models and clinical relevance**<br>**Edward Fisher**, *New York University, USA* |
| | 09:15 **New mechanisms for BAT and Cardiovascular Disease**<br>**Kristin Stanford**, *Ohio State University, USA* | 09:00 **Apo F, a link between non-alcoholic fatty liver disease and atherogenic dyslipidemia**<br>**Bart Staels**, *University of Lille, France* |
| | 09:30 **Sex-biased inflammatory responses in cardiac remodelling**<br>**George Kararigas**, *University of Iceland, Iceland* | 09:15 **Coronary artery disease - beyond the "SMuRFs"**<br>**Gemma Figtree**, *University of Sydney, Australia* |

## SCIENTIFIC PROGRAM

DAY 3: FRIDAY, APRIL 29, 2022

| | PLAZA MEETING ROOM | BALLROOM MEETING ROOM |
|---|---|---|
| | | 09:30 **Mitochondrial dysfunction in M2 macrophages differentiated from human non-classical monocytes is linked to foam cell formation**<br>**Andrew Murphy**, *Baker Heart & Diabetes Institute, Australia (selected from abstract)* |
| 09:45-10:00 | **COFFEE BREAK** | |
| 10:00-11:30 | BASIC CARDIOVASCULAR SESSION<br>**"Epi" Changes and "Omics" Analyses in Cardiac Health and Disease**<br>*Chairs*<br>***Theodoros Papaioannou***, *University of Athens, Greece*<br>***Sarah Schumacher-Bass***, *Cleveland Clinic, USA*<br>*Invited Speakers*<br>10:00 **Chromatin fluidity in cardiac myocytes and fibroblasts**<br>**Thomas Vondriska**, *UCLA, USA*<br>10:15 **Deciphering the extracellular transcriptomics: new insights into mechanisms and pathways**<br>**Saumya Das**, *Massachusetts General Hospital, USA*<br>10:35 **Heart and systemic metabolism crosstalk: cardiac bARKnt as a sex-dependent tool**<br>**Sarah Schumacher-Bass**, *Cleveland Clinic, USA*<br>10:55 **Targeting T-Lymphocytes during Heart Failure: Transcriptomics to Drug Development**<br>**Shyam Bansal**, *The Ohio State University, USA* | TRANSLATIONAL CARDIOVASCULAR SESSION<br>**Cardiac and Peripheral Imaging**<br>*Chairs*<br>***Savvas Loizos***, *Hygeia Hospital, Greece*<br>***Michel Noutsias***, *University Hospital Halle, Germany*<br>*Invited Speakers*<br>10:00 **Molecular Imaging of Venous thromboembolism: Inflammation, Thrombus Age and Therapy**<br>**Chase Kessinger**, *Masonic Medical Research Institute, USA*<br>10:20 **Imaging the vulnerable plaque: are we focusing on the right target?**<br>**Constantinos Anagnostopoulos**, *BRF Academy of Athens, Greece*<br>10:40 **Detecting residual inflammatory risk by non-invasive imaging**<br>**Alexios Antonopoulos**, *University of Athens, Greece*<br>11:00 **The right ventricle for the wrong left one**<br>**Michael Bonios**, *Onassis Cardiac Center, Greece* |

## SCIENTIFIC PROGRAM

DAY 3: FRIDAY, APRIL 29, 2022

| | PLAZA MEETING ROOM | BALLROOM MEETING ROOM |
|---|---|---|
| | 11:15 **BACE1-AS lncRNA role in shared disease mechanisms between heart failure and Alzheimer's disease**<br>**Fabio Martelli**, *IRCCS Policlinico San Donato, Italy (Selected for short talk)* | 11:15 **Live-cell imaging of mitochondrial redox stress in a transgenic mouse model of spontaneous atrial fibrillation**<br>**Mufassra Mushtaq**, *University Medical Center Gottingen, Germany (selected for short talk)* |
| 11:30-11:45 | **COFFEE BREAK** | |
| 11:45-13:00 | BASIC CARDIOVASCULAR SESSION TOPIC<br>**Chasing RNA to Understand Cardiac Disease** | TRANSLATIONAL CARDIOVASCULAR SESSION<br>**Clinical Implications of COVID-19 Coagulopathy and Immunothrombosis** |
| | *Chairs*<br>***Dimitris Kardassis***, *University of Crete, Greece*<br>***Dimitris Beis***, *BRF Academy of Athens, Greece* | *Chairs*<br>***Zhiqiang Lin***, *Masonic Medical Research Institute, USA*<br>***Chen Gao***, *University of Cincinnati, USA* |
| | *Invited Speakers* | *Invited Speakers* |
| | 11:45 **Defining new pathogenic pathways for genetic cardiomyopathy**<br>**Eva van Rooij**, *Hubrecht Institute, Netherlands* | 11:45 **Cardiac Injury in Critical COVID-19: Clinico-histopathologic and Single Cell Insights**<br>**Emily Tsai**, *Columbia University, USA* |
| | 12:00 **From variants to mechanisms using single cell sequencing**<br>**Nate Tucker**, *Masonic Medical Research Institute, USA* | 12:00 **Selectively expressing SARS-Cov-2 spike protein in the cardiomyocytes induces cardiac hypertrophy in mice**<br>**Zhiqiang Lin**, *Masonic Medical Research Institute, USA* |
| | 12:15 **Non-coding RNAs and cardiovascular disease in the COVID-19 era**<br>**Yvan Devaux**, *Luxembourg Institute of Health* | 12:15 **Personalized Medicine in Management of Patients with Cancer-Associated Thrombosis. Facts and Hopes**<br>**Grigoris Gerotziafas**, *Université Pierre et Marie Curie (Paris VI), France* |

## SCIENTIFIC PROGRAM

DAY 3: FRIDAY, APRIL 29, 2022

**PLAZA MEETING ROOM**

12:30 **METTL3 as a therapeutic target in ischaemic disease**
**Costanza Emanoueli**, *Imperial College, London*

12:45 **FTO in mRNA trafficking and translation in cardiac contraction**
**Susmita Sahoo**, *Mount Sinai School of Medicine, USA*

**BALLROOM MEETING ROOM**

12:30 **Clinical status and benefits of anticoagulant treatment in COVID-19**
**James Douketis**, *McMaster University, Canada*

12:45 **COVID-19-associated coagulopathy and thrombosis. Underlying mechanisms**
**Alexandros Tselepis**, University of Ioannina, Greece

13:00-13:30 **LUNCH BREAK**

**PLAZA MEETING ROOM**

13:30-14:15 ROUNDTABLE DISCUSSION

**Inflammation: Driving Cardiac Dysfunction with or without Ischemia**

*Chair* ***Konstantinos Drosatos***, *University of Cincinnati College of Medicine, USA*

*Discussants*

**Novel mechanisms of Cardiac T cell activation in adverse cardiac remodeling**
**Pilar Alcaide**, *Tufts University, USA*

**Driving Cardiac Dysfunction with or without Ischemia**
**Sophie Mavrogeni**, *Onassis Cardiac Surgery Center, Greece*

**Introducing Nature Cardiovascular Research**
**Vesna Todorović**, *Nature Cardiovascular Research, USA*

## SCIENTIFIC PROGRAM

DAY 3: FRIDAY, APRIL 29, 2022

**PLAZA MEETING ROOM**

14:15-15:45 JOINT BASIC & TRANSLATIONAL SESSION TOPIC

**From the Right and Left Ventricle to the Periphery and Back: Bench to Bedside**

*Chairs* ***Christoph Rau***, *University of North Carolina at Chapel Hill, USA*

***Eleni Tseliou***, *University of Utah, USA*

*Invited Speakers*

14:30 **Lipid uptake and heart and vascular biology**
**Ira J. Goldberg**, *New York University, USA*

14:50 **Metabolic remodelling of the failing heart**
**P. Christian Schulze**, *Clinical University of Jena, Germany*

15:10 **Myocardial Recovery: Bedside to Bench and Back**
**Stavros G. Drakos**, *University of Utah Health & School of Medicine, USA*

15:30 **Exosomes-Mediated Adipocyte-Cardiomyocyte Crosstalk in Ischemic Heart Injury**
**Xin-Liang Ma**, *Thomas Jefferson University, USA*

15:45-16:00 **COFFEE BREAK**

16:00-17:15 JOINT BASIC & TRANSLATIONAL SESSION

**Re-engineering Failed Hearts**

*Chairs* ***Jop Van Berlo***, *University of Minnesota, USA*

***Zhiqiang Lin***, *Masonic Medical Research Institute, Utica, NY, USA*

*Invited Speakers*

16:00 **Transcriptional Regulation of Cardiomyocyte Renewal: From Mechanism to Therapeutics**
**Hesham Sadek**, *UT Southwestern, USA*

16:15 **Single nucleus transcriptomics: Apical resection in newborn pigs extends the time-window of cardiomyocyte proliferation and myocardial regeneration**
**Yuji Nakada**, *University of Alabama at Birmingham, USA*

16:30 **Cardio-protective effects of serine biosynthesis pathway**
**Ioannis Karakikes**, *Stanford University, USA*

16:45 **Gender-specific cardio-protective functional dimorphism of bone marrow endothelial progenitor cells**
**Raj Kishore**, *Temple University, USA*

17:00 **Circadian Regulation of Cardiac Growth**
**Martin Young**, *University of Alabama at Birmingham, USA*

## SCIENTIFIC PROGRAM

DAY 3: FRIDAY, APRIL 29, 2022

17:15-17:30 **COFFEE BREAK**

**PLAZA MEETING ROOM**

17:30-18:30 JOINT BASIC & TRANSLATIONAL SESSION

**Novel Treatments for Heart Failure**

*Chairs* ***Mohsin Khan****, Temple University, USA*

***Warren Anderson****, Bristol Myers Squibb, USA*

*Invited Speakers*

17:30 **The Secretome in Cardiomyopathies**
**Carmen (Kika) Sucharov**, *University of Colorado, School of Medicine, USA*

17:45 **Sex-Based responses to Pressure Overload**
**Steven Houser**, *Temple University, USA*

18:00 **Role of metabolic cycles in cardiac repair and remodeling**
**Bradford Hill,** *University of Louisville, USA*

18:15 **Specific Targeting of HDAC4 to treat HFrEF and HFpEF**
**Johannes Backs**, *University Hospital Heidelberg, Germany*

19:00-23:00 CLOSING DINNER

**Agrambeli Estate** *(Bus departure: Galaxy Hotel)*

## SCIENTIFIC PROGRAM

### DAY 4: SATURDAY, APRIL 30, 2022

| | PLAZA MEETING ROOM | BALLROOM MEETING ROOM |
|---|---|---|
| 08:15-09:30 | BASIC CARDIOVASCULAR SESSION<br>**Metabolic Pathways Crosstalk in Cardiovascular Biology**<br>*Chairs*<br>***Michael Kelberman***, *Masonic Medical Research Institute, USA*<br>***Ioanna Andreadou***, *University of Athens, Greece*<br>*Invited Speakers*<br>08:15 **The impact of BCAA on epigenetics and energetics in the heart**<br>**Maha Abdellatif**, *Rutgers University, Newark, USA*<br>08:30 **Cardiac Metabolism**<br>**Zoltan Arany**, *University of Pennsylvania, USA*<br>08:45 **Iron regulation in cardiovascular disease**<br>**Hossein Ardehali**, *Northwestern University, USA*<br>09:00 **Metabolic Coordination of Ventricular Remodeling**<br>**Steven P. Jones**, *University of Louisville, USA*<br>09:15 **Exosomal miRNAs in the Progress of Cardiac Fibrosis**<br>**Suresh Verma**, *University of Alabama at Birmingham, Alabama USA (selected for short talk)* | TRANSLATIONAL CARDIOVASCULAR SESSION<br>**Current Trends in Cardiology Clinical Practice and Research**<br>*Chair*<br>***Stavros G. Drakos***, *University of Utah Health & School of Medicine, USA*<br>*Invited Speakers*<br>08:15 **Cardiac energy metabolism in HFpEF**<br>**Gary Lopaschuk**, *University of Alberta, Canada*<br>08:30 **Endocrine crosstalk between skeletal muscle and the heart**<br>**Jörg Heineke**, *Heidelberg University, Germany*<br>08:45 **The intriguing role of microRNAs in the evolution from hypertension to heart failure**<br>**Maria Marketou**, *University of Crete, Greece*<br>09:00 **Preserved cardiac performance and adrenergic response in a rabbit model with decreased ryanodine receptor 2 expression**<br>**Francisco Alvarado**, *University of Wisconsin, USA (selected for short talk)*<br>09:15 **Transcription factor HIF-1α limits cardiomyoblast proliferation in a pluripotent stem cell model of human cardiomyogenesis**<br>**Angeliki Daiou,** *Aristotle University of Thessaloniki, Greece (selected for short talk)* |
| 09:30-10:00 | **COFFEE BREAK** | |

## SCIENTIFIC PROGRAM

DAY 4: SATURDAY, APRIL 30, 2022

### PLAZA MEETING ROOM

10:00-11:15 BASIC CARDIOVASCULAR SESSION

**Mitochondria and Myocardial Metabolism**

*Chairs*

***Antigone Lazou**, Aristotle University of Thessaloniki, Greece*

***Priscila Sato**, Drexel University, USA*

*Invited Speakers*

10:00 **Remodeling the gatekeepers of fat oxidation in pathologically stressed hearts**
**E. Douglas Lewandowski**, *Ohio State University, USA*

10:15 **Ceramides: The New Cholesterol**
**Scott Summers**, *The University of Utah, USA*

10:30 **Release of Mitochondria in Extracellular Vesicles as an Alternative Quality Control Mechanism**
**Asa Gustafsson**, *University of California at San Diego, USA*

10:45 **Metabolic control of myofibroblast formation and fibrosis**
**John Elrod**, *Temple University, USA*

11:00 **Ceramides Alter Glucose Metabolism and Drive Diastolic Dysfunction by Decreasing Isocitrate Dehydrogenase 2 Expression**
**Sean Tatum**, *University of Utah, USA (selected for short talk)*

### BALLROOM MEETING ROOM

TRANSLATIONAL CARDIOVASCULAR SESSION

**Heart Failure & Transplant**

*Chairs*

***Antigoni Koliopoulou**, Onassis Heart Center, Greece*

***Gus Vlahakes**, Massachusetts General Hospital, USA*

*Invited Speakers*

10:00 **Allele-specific genetic and hypoxic control of a lncRNA axis orchestrates endothelial reprogramming in pulmonary hypertension**
**Stephen Chan**, *Vascular Medicine Institute, University of Pittsburgh, USA*

10:20 **Mg to treat diastolic heart failure and atrial fibrillation**
**Samuel Dudley**, *Lillehei Heart Institute, USA*

10:40 **LVAD-mediated myocardial recovery: fact or fantasy**
**Craig Selzman**, *University of Utah, USA*

10:50 **Heart failure ABD transplant**,
**Ioannis Boletis**, *University of Athens, Greece*

11:15-11:45 **BREAK**

## SCIENTIFIC PROGRAM

DAY 4: SATURDAY, APRIL 30, 2022

**PLAZA MEETING ROOM**

11:45-12:45

BASIC CARDIOVASCULAR SESSION

**Mitochondrial Biology and Cardiomyocyte Dysfunction**

*Chair*

***Chase Kessinger**, Masonic Medical Research Institute, USA*

*Invited Speakers*

11:45 **Molecular diversity in Alzheimer's Cardiomyopathy**
**Federica del Monte**, *Medical University of South Carolina, USA*

12:00 **Endothelial colony-forming cell-derived extracellular vesicles and cardiac repair after myocardial infarction**
**Vaibhav Patel**, *University of Calgary, Canada (selected for short talk)*

12:15 **The landscape of Somatic Mutation in Aging Human Heart**
**Sangita Choudhury**, *Boston Children's Hospital, Harvard Medical School, USA*

12:30 **The Microprotein Mitolamban Regulates Mitochondrial Respiratory Complex Assembly and Function**
**Cat A. Makarewich**, *Cincinnati Children's Hospital Medical Center, USA*

BASIC CARDIOVASCULAR SESSION

**Pathological Signaling in Heart Failure**

*Chairs*

***Nicole Purcell**, Huntington Medical Research Institutes, USA*

***Yajing Wang**, Thomas Jefferson University, USA*

*Invited Speakers*

11:45 **Nitric Oxide Signaling in HFpEF**
**David Lefer**, *Louisiana State University Health Sciences Center, USA*

12:00 **PP2A-mAKAPbeta Signalosomes and Cardiomyopathy**
**Michael S. Kapiloff**, *Stanford University, USA*

12:15 **Arrhythmogenic Transient Receptor Potential Melastatin 4 (TRPM4) Mutations**
**Gary Aistrup**, *Masonic Medical Research Institute, USA*

12:30 **Targeting Junctophilin-2 for Heart Failure Gene Therapy**
**Long-Sheng Song**, *University of Iowa, USA*

## SCIENTIFIC PROGRAM

DAY 4: SATURDAY, APRIL 30, 2022

**PLAZA MEETING ROOM**

12:45-13:45 CLOSING KEYNOTE SESSION

**The Past and the Future of Basic and Clinical Cardiovascular Research**

*Chairs*

***Konstantinos Drosatos**, University of Cincinnati College of Medicine, USA*

***Litsa Kranias**, University of Cincinnati College of Medicine, USA*

*Distinguished Lectures*

**Human variant in Flightless-I (FLII) gene associated with cardiomyopathy reveals a function in sarcomere length**
**Jeffery Molkentin**, *Cincinnati Children's Hospital Medical Center, USA*

**Pathways Linking Aging and Heart Failure: Not Just for the Old**
**Anthony Rosenzweig**, *MGH-Harvard Medical School, USA*

CLOSING REMARKS

13:45 **MEETING ADJOURNS**

## FACULTY LIST

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|---|---|
| **Abdellatif Maha** | *Rutgers University, Newark, USA* |
| **Abel E. Dale** | *University of Iowa, USA* |
| **Accornero Federica** | *Ohio State University, USA* |
| **Aistrup Gary** | *Masonic Medical Research Institute, USA* |
| **Alcaide Pilar** | *Tufts University, USA* |
| **Alvarado Francisco** | *University of Wisconsin, USA* |
| **Anagnostopoulos Constantinos** | *BRF Academy of Athens, Greece* |
| **Anderson Warren** | *Bristol Myers Squibb, USA* |
| **Andreadou Ioanna** | *University of Athens, Greece* |
| **Anousakis-Vlachochristou Nikolaos** | *MD, PhDc., First Department of Cardiology, Athens Medical school, NKUA & Cardiovascular Translational Research unit, BRFAA, Athens, Greece* |
| **Antonopoulos Alexios** | *University of Athens, Greece* |
| **Arany Zoltan** | *University of Pennsylvania, USA* |
| **Ardehali Hossein** | *Northwestern University, USA* |
| **Ardehali Reza** | *UCLA, USA* |
| **Avgerinos Dimitrios** | *Onassis Heart Center, Greece* |
| **Backs Johannes** | *University Hospital Heidelberg, Germany* |
| **Bansal Shyam** | *The Ohio State University, USA* |
| **Beis Dimitris** | *BRF Academy of Athens, Greece* |
| **Boletis Ioannis** | *University of Athens, Greece* |
| **Bonios Michael** | *Onassis Cardiac Center, Greece* |
| **Boogerd Cornelis** | *Hubrecht Institute, The Netherlands* |
| **Capetanaki Yassemi** | *BRFAA, Greece* |
| **Carrier Lucie** | *University Medical Center, Hamburg-Eppendorf, Germany* |
| **Chan Stephen** | *Vascular Medicine Institute, University of Pittsburgh, USA* |
| **Chang Jiang** | *Texas A&M University, USA* |
| **Choudhury Sangita** | *Boston Children's Hospital, Harvard Medical School, USA* |
| **Daiou Angeliki** | *Aristotle University of Thessaloniki, Greece* |
| **Darley-Usmar Victor** | *University of Alabama at Birmingham, USA* |
| **Das Saumya** | *Massachusetts General Hospital, USA* |
| **del Monte Federica** | *Medical University of South Carolina, USA* |
| **Devaux Yvan** | *Luxembourg Institute of Health* |
| **Dimmeler Steffanie** | *Goethe-Universität Frankfurt am Main, Germany* |
| **Dougenis Dimitrios** | *University of Athens, Greece* |

## FACULTY LIST

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|---|---|
| **Douketis James** | *McMaster University, Canada* |
| **Drakos Stavros** | *University of Utah Health & School of Medicine, USA* |
| **Drosatos Konstantinos** | *University of Cincinnati College of Medicine, USA* |
| **Dudley Samuel** | *Lillehei Heart Institute, USA* |
| **Elrod John** | *Temple University, USA* |
| **Emanoueli Costanza** | *Imperial College, London* |
| **Eschenhagen Thomas** | *University Medical Center Hamburg-Eppendorf, Germany* |
| **Figtree Gemma** | *University of Sydney, Australia* |
| **Fisher Edward** | *New York University, USA* |
| **Franklin Sarah** | *University of Utah, USA* |
| **Gao Chen** | *University of Cincinnati, USA* |
| **Gerotziafas Grigoris** | *Université Pierre et Marie Curie (Paris VI), France* |
| **Goldberg Ira** | *New York University, USA* |
| **Gomez Ana M.** | *Inserm, France* |
| **Granzier Henk** | *University of Arizona, USA* |
| **Gustafsson Asa** | *University of California at San Diego, USA* |
| **Haldar Saptarsi** | *University of California, San Francisco, USA* |
| **Hare Joshua** | *University of Miami, USA* |
| **Harris Samantha** | *University of Arizona, USA* |
| **Hatzistergos Konstantinos** | *Aristotle University of Thessaloniki, Greece* |
| **Heineke Jörg** | *Heidelberg University, Germany* |
| **Hill Bradford** | *University of Louisville, USA* |
| **Hill Joseph** | *UT Southwestern, USA* |
| **Houser Steven** | *Temple University, USA* |
| **Iliadis Elias** | *Cooper Medical School of Rowan University, USA* |
| **Jaffe Iris** | *Tufts Medical Center, USA* |
| **Jones Steven P.** | *University of Louisville, USA* |
| **Kallikourdis Marinos** | *Humanitas Research Hospital, Italy* |
| **Kampaktsis Polydoros** | *New York University Langone Medical Center, USA* |
| **Kapiloff Michael S.** | *Stanford University, USA* |
| **Karakikes Ioannis** | *Stanford University, USA* |
| **Kararigas George** | *University of Iceland, Iceland* |
| **Kardassis Dimitris** | *University of Crete, Greece* |
| **Kelberman Michael** | *Masonic Medical Research Institute, USA* |

## FACULTY LIST

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|---|---|
| **Kessinger Chase** | *Masonic Medical Research Institute, USA* |
| **Khan Mohsin** | *Temple University, USA* |
| **Kirk Jonathan** | *Loyola University, USA* |
| **Kishore Raj** | *Temple University, USA* |
| **Koch Walter** | *Temple University, USA* |
| **Koliopoulou Antigoni** | *Onassis Heart Center, Greece* |
| **Kontaridis Maria** | *Masonic Medical Research Institute, USA* |
| **Kontrogianni Katia** | *University of Maryland, USA* |
| **Kranias Litsa** | *University of Cincinnati College of Medicine, USA* |
| **Lazou Antigone** | *Aristotelian University of Thessaloniki, Greece* |
| **Lefer David** | *Louisiana State University Health Sciences Center, USA* |
| **Leinwand Leslie** | *University of Colorado, USA* |
| **Lewandowski E. Douglas** | *Ohio State University, USA* |
| **Liberopoulos Evangelos** | *University of Ioannina, Greece* |
| **Lin Zhiqiang** | *Masonic Medical Research Institute, Utica, NY, USA* |
| **Lin Zhiqiang** | *Masonic Medical Research Institute, USA* |
| **Loizos Savvas** | *Hygeia Hospital, Greece* |
| **Lopaschuk Gary** | *University of Alberta, Canada* |
| **Lymperopoulos Anastasios** | *Nova Southeastern University, USA* |
| **Ma Xin-Liang** | *Ma, Thomas Jefferson University, USA* |
| **Makarewich Cat A.** | *Cincinnati Children's Hospital Medical Center, USA* |
| **Marketou Maria** | *University of Crete, Greece* |
| **Marouli Erini** | *William Harvey Research Institute, Queen Mary University of London, UK* |
| **Martelli Fabio** | *IRCCS Policlinico San Donato, Italy* |
| **Mavrogeni Sophie** | *Onassis Cardiac Surgery Center, Greece* |
| **McKinsey Tim** | *University of Colorado, USA* |
| **Menick Donald** | *Medical University of South Carolina, USA* |
| **Mirotsou Maria** | *Merck Research Laboratories, USA* |
| **Mohsin Sadia** | *Temple University, USA* |
| **Molkentin Jeffery** | *Cincinnati Children's Hospital Medical Center, US* |
| **Murphy Andrew** | *Baker Heart & Diabetes Institute, Australia* |
| **Murphy Elizabeth** | *National Institutes of Health, USA* |
| **Mushtaq Mufassra** | *University Medical Center Gottingen, Germany* |
| **Nagareddy Prabhakara** | *Ohio State University, USA* |

## FACULTY LIST

| | |
|---|---|
| **Nakada Yuji** | *University of Alabama at Birmingham, USA* |
| **Noutsias Michel** | *University Hospital Halle, Germany* |
| **Osmanagic-Myers Selma** | *Medical University of Vienna, Austria* |
| **Papaioannou Theodoros** | *University of Athens, Greece* |
| **Patel Vaibhav** | *University of Calgary, Canada* |
| **Pfleger Jessica** | *Virginia Tech, USA* |
| **Prabhu Sumanth** | *Washington University School of Medicine in St. Louis, USA* |
| **Psarras Stelios** | *BRF Academy of Athens, Greece* |
| **Purcell Nicole** | *Huntington Medical Research Institutes, USA* |
| **Rau Christoph** | *University of North Carolina at Chapel Hill, USA* |
| **Rosenzweig Anthony** | *MGH-Harvard Medical School, USA* |
| **Rota Marcello** | *New York Medical College, USA* |
| **Rubin Jaime** | *Columbia University, USA* |
| **Sadayappan Sakthivel** | *University of Cincinnati, USA* |
| **Sadek Hesham** | *UT Southwestern, USA* |
| **Sahoo Susmita** | *Mount Sinai School of Medicine, USA* |
| **Sato Priscila** | *Drexel University, USA* |
| **Schulze Christian** | *Clinical University of Jena, Germany* |
| **Schumacher-Bass Sarah** | *Cleveland Clinic, USA* |
| **Selzman Craig** | *University of Utah, USA* |
| **Smolgovsky Sasha** | *Tufts University, USA* |
| **Song Long-Sheng** | *University of Iowa, USA* |
| **Staels Bart** | *University of Lille, France* |
| **Stainier Didier** | *Max Planck Institute for Heart and Lung Research, Germany* |
| **Stamatelopoulos Kimon** | *University of Athens, Greece* |
| **Stanford Kristin** | *Ohio State University, USA* |
| **Stavrakis Stavros** | *University of Oklahoma, USA* |
| **Stellos Konstantinos** | *Heidelberg University, Germany* |
| **Sucharov Carmen (Kika)** | *University of Colorado, School of Medicine, USA* |
| **Summers Scott** | *The University of Utah, USA* |
| **Szczesna-Cordary Danuta** | *University of Miami, USA* |
| **Tallquist Michelle** | *University of Hawaii, USA* |
| **Tampakakis Emmanuel** | *Johns Hopkins Medical Institute, USA* |
| **Tardiff Jil** | *University of Arizona, USA* |

## FACULTY LIST

| | |
|---|---|
| **Tatum Sean** | *University of Utah, USA* |
| **Thorp Edward** | *Northwestern University, USA* |
| **Tilley Douglas** | *Temple University, USA* |
| **Todoroviđ Vesna** | *Nature Cardiovascular Research, USA* |
| **Tsai Emily** | *Columbia University, USA* |
| **Tselepis Alexandros** | *University of Ioannina, Greece* |
| **Tseliou Eleni** | *University of Utah, USA* |
| **Tsikitis Mary** | *BRF Academy of Athens, Greece* |
| **Tsui Hoyee (Jenny)** | *Hubrecht Institute, Netherlands* |
| **Tucker Nate** | *Masonic Medical Research Institute, USA* |
| **Valdivia Carmen** | *University of Wisconsin, USA* |
| **Van Berlo Jop** | *University of Minnesota, USA* |
| **Van Rooij Eva** | *Hubrecht Institute, Netherlands* |
| **Verma Suresh** | *University of Alabama at Birmingham, Alabama USA* |
| **Vlahakes Gus** | *Massachusetts General Hospital, USA* |
| **Voigt Niels** | *University Medical Center Gottingen, Germany* |
| **Vondriska Thomas** | *UCLA, USA* |
| **Wang Yajing** | *Thomas Jefferson University, USA* |
| **Wang Yibin** | *Duke-NUS Medical School, Singapore* |
| **Warren Junco** | *Virginia Tech, USA* |
| **Wehrens Xander** | *Baylor College of Medicine, USA* |
| **Westenbrink Daan** | *University of Groningen, Netherlands* |
| **Yannopoulos Demetri** | *University of Minnesota, USA* |
| **Young Martin** | *University of Alabama at Birmingham, USA* |
| **Zhang Jianhua** | *University of Birmingham at Alabama, USA* |

# GENERAL INFORMATION

## SYMPOSIUM DATES

**27-30 April 2022**

The Symposium will be held with physical presence. Online participation is not possible.

## THE VENUE

**Galaxy Hotel**

75 Dimokratias Av., 71306, Heraklion, Crete, Greece
T. +30 2810 238812
https://www.galaxy-hotel.com/en

## SCIENTIFIC PROGRAM SESSIONS

For the needs of the smooth flow of the scientific program, Speakers are kindly requested to limit their presentation (PPT 16:9) within the predetermined duration. Moderators adhere to the time frame of the session they are chairing, ensuring the necessary time for discussion, and encouraging questions from the audience

## BOOK OF ABSTRACTS

Scan the QR Code to download the Book of Abstracts

## CERTIFICATES OF ATTENDANCE

Certificates of attendance will be sent out electronically to all registered participants after the end of the Symposium.

# GENERAL INFORMATION

## SYMPOSIUM OFFICIAL LANGUAGE

The official language of the Symposium is English. Translation in Greek or any other language is not provided.

## SPEAKERS PREVIEW DESK

All speakers are kindly requested to have their presentations available in electronic format (USB sticks). The use of personal computers and tablets cannot be supported. All presentations should be delivered at least one (1) hour before the start of the session to the authorized personnel that staffs the speakers preview desk, which will be located at the venue for the whole duration of the Symposium.

## SECRETARIAT & PREVIEW DESK OPERATING HOURS

| | |
|---|---|
| Wednesday, April 27: | 12.30-20.00 |
| Thursday, April 28: | 07.30-18.45 |
| Friday, April 29: | 07.45-18.45 |
| Saturday, April 30: | 08.00-14.00 |

*Registration Desk is sponsored by* ELPEN

## COFFEE BREAKS & LIGHT LUNCHES

Coffee breaks and light lunches included in your accommodation package, will be served at the venue according to the final program. Coffee breaks are included in the registration fee for all the registered participants.

***SPECIAL NOTE:*** In case you haven't booked your accommodation via the official Symposium webpage/Secretariat, please address AFEA personnel at the Registration Desk to buy your light lunch coupons for the whole duration of the meeting (cost is not available per day).

**Light lunches package*: 35€ per person**

**For the days of the Symposium and according to the final program, incl. (1) light lunch on April 28 & (1) light lunch on April 29*

# GENERAL INFORMATION

## SOCIAL EVENTS

| | |
|---|---|
| April 27: Half-day Knossos Tour (08.00-14.00) | Cost per ticket: 100€ |
| April 27: Opening Dinner at Arolithos Traditional Cretan Village (19.00-23.00) | Cost per ticket: 50€ |
| April 29: Closing Dinner at Agrampeli Estate (20.00-23.00) | Cost per ticket: 50€ |

As limited seats are available and onsite requests will be considered on a first-come-first-serve basis, please contact the Secretariat located at the venue, to buy your ticket(s) on time. Bus transfer will be provided from/to the venue (Galaxy Hotel). Exact timeline is available at the Registration Desk.

## COVID-19 NOTIFICATION

The Symposium is taking place in full compliance with the current health protocols for the organization of conferences set by all component authorities. In this respect, all necessary guidelines regarding safety distances and maximum space capacity will be respected.

## COVID PROTOCOLS DURING THE SYMPOSIUM

According to the relevant health protocols, access to the meeting rooms is allowed to:

- Participants who have certification of vaccination with the final dose administered at least 14 days prior
- Participants who have documentation proving that they have recovered from the virus dated within six months of the event

## DISCLAIMER

The Organizers and the PCO, AFEA Travel & Congress Services accept no liability for any personal injury, loss or damage of property or additional expenses incurred to congress participants either during the congress or as a result of delays, strikes or any other circumstances. In addition, they accept no liability for illness (including death) from infectious diseases, including - but not limited to - COVID-19 during or after the congress dates. Participants are requested to make their own arrangements with respect to health and travel insurance.

# GENERAL INFORMATION

## SYMPOSIUM SECRETARIAT

AFEA Travel and Congress Services

Professional Congress Organizer (PCO)
Likavittou 39-41, 10672 Athens-Greece
Tel:+30 2103668854, 895 / Fax: +30 2103643511
Email: congressdpt@afea.gr

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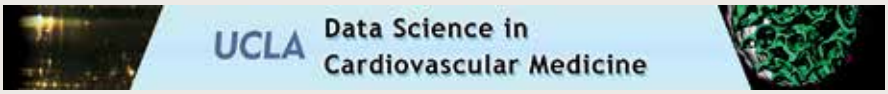

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**Βοηθήστε να γίνουν τα φάρμακα πιο ασφαλή και Αναφέρετε ΟΛΕΣ τις ανεπιθύμητες ενέργειες για ΟΛΑ τα φάρμακα Συμπληρώνοντας την «ΚΙΤΡΙΝΗ ΚΑΡΤΑ»**

GR-RA-10-02-2022

Menarini Hellas

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