

Ahmed, Nizam

Cardiac stromal cells activate a blastema-like transcriptional signature 42 post cryoinjury

Alameldeen, Ahmed

Presenters: Alameldeen, Ahmed; Naghizadeh, Mohsen

Gain of function of nonsense mediated mRNA decay in the 43 pathogenesis of HCM with MYBPC3 PTC mutation

Alegret, Núria

Talking to the heart with electroactive materials: from cell maturation 44 to implantable patches

Amato, Nunzia

Human cardioids as a model for cardiomyocyte cell competition 45

Annamalai, Karthika

Metabolic stress drives N6-methyladenosine alterations and 46 autophagy impairment in human iPSC-derived cardiomyocytes

Souza, Beatriz

Tenascin C, an unexpected regulator: how an extracellular protein 47 fine-tunes vascular tone

Balmas, Elisa

Single cell transcriptional perturbome in pluripotent stem cell models 48

Bassat, Elad

AXL governs axolotl cardiac regeneration and directs mammalian 49 cardiomyocyte dedifferentiation

Bazgir, Farhad

Reversal of Nnt function drives early mitochondrial ROS accumulation 50 and energetic collapse in HFP EF

Beckerova, Deborah

Cardiac progenitors in Duchenne muscular dystrophy show elevated 51 DNA damage and accelerated maturation

EMBL Conference: The new cardiobiology: engineering, vascular, and molecular insights

Bektimirova, Alina

**Establishment of a 3D culture system to investigate mechanisms and 52
discover novel molecules that promote cardiomyocyte invasion of
fibrotic scar tissue**

Benjamin, Joshua

**Expansion microscopy to reveal the cardiac ultrastructure of 53
engineered heart tissue**

Bhatt, Amit

**Toward a molecular “blueprint” of cardiac regeneration through 54
spatiotemporal multiomics: a systematic review**

Bhunia, Sayari

**Base editing for anti-arrhythmic therapy: Tpc1/Tpc2 inactivation in a 55
OCaR2-deficient mouse model**

Bodemer, Colin

**Substrate stiffness induces senescence via the secretion of YBX1 by 56
endothelial cells**

Bongiovanni, Chiara

Presenter: D'Uva, Gabriele Matteo

**A dynamic shift in bone morphogenetic protein signaling facilitates 57
postnatal cardiomyocyte cell cycle exit**

Borriati, Stefano

**Antagonizing glucocorticoids to unleash the potential of cardiac 58
regenerative factors**

Bortolotti, Francesca

Presenter: Gobbetti, Thomas

**Chrdl1 as a novel therapeutic target counteracting maladaptive 59
remodeling in heart failure**

Boujeddaine, Najla

Dissecting the role of MYH6 in heart rate and rhythm

60

Brauer, Jannek

**Cardiomyocyte Guanylate Binding Protein 5 (GBP5) is a central 61
regulator of cardiac inflammatory response**

Ahmed, Nizam

Cardiac stromal cells activate a blastema-like transcriptional signature 42 post cryoinjury

Alameldeen, Ahmed

Presenters: Alameldeen, Ahmed; Naghizadeh, Mohsen

Gain of function of nonsense mediated mRNA decay in the 43 pathogenesis of HCM with MYBPC3 PTC mutation

Alegret, Núria

Talking to the heart with electroactive materials: from cell maturation 44 to implantable patches

Amato, Nunzia

Human cardioids as a model for cardiomyocyte cell competition 45

Annamalai, Karthika

Metabolic stress drives N6-methyladenosine alterations and 46 autophagy impairment in human iPSC-derived cardiomyocytes

Souza, Beatriz

Tenascin C, an unexpected regulator: how an extracellular protein 47 fine-tunes vascular tone

Balmas, Elisa

Single cell transcriptional perturbome in pluripotent stem cell models 48

Bassat, Elad

AXL governs axolotl cardiac regeneration and directs mammalian 49 cardiomyocyte dedifferentiation

Bazgir, Farhad

Reversal of Nnt function drives early mitochondrial ROS accumulation 50 and energetic collapse in HFP EF

Beckerova, Deborah

Cardiac progenitors in Duchenne muscular dystrophy show elevated 51 DNA damage and accelerated maturation

EMBL Conference: The new cardiobiology: engineering, vascular, and molecular insights

Bektimirova, Alina

**Establishment of a 3D culture system to investigate mechanisms and 52
discover novel molecules that promote cardiomyocyte invasion of
fibrotic scar tissue**

Benjamin, Joshua

**Expansion microscopy to reveal the cardiac ultrastructure of 53
engineered heart tissue**

Bhatt, Amit

**Toward a molecular “blueprint” of cardiac regeneration through 54
spatiotemporal multiomics: a systematic review**

Bhunia, Sayari

**Base editing for anti-arrhythmic therapy: Tpc1/Tpc2 inactivation in a 55
OCaR2-deficient mouse model**

Bodemer, Colin

**Substrate stiffness induces senescence via the secretion of YBX1 by 56
endothelial cells**

Bongiovanni, Chiara

Presenter: D'Uva, Gabriele Matteo

**A dynamic shift in bone morphogenetic protein signaling facilitates 57
postnatal cardiomyocyte cell cycle exit**

Borriati, Stefano

**Antagonizing glucocorticoids to unleash the potential of cardiac 58
regenerative factors**

Bortolotti, Francesca

Presenter: Gobbetti, Thomas

**Chrdl1 as a novel therapeutic target counteracting maladaptive 59
remodeling in heart failure**

Boujeddaine, Najla

Dissecting the role of MYH6 in heart rate and rhythm

60

Brauer, Jannek

**Cardiomyocyte Guanylate Binding Protein 5 (GBP5) is a central 61
regulator of cardiac inflammatory response**

Buß, Jakob

Understanding the complex role of Galectin-3 in IRF3-mediated cardiac fibrosis 62

Cadena, Melissa

A tunable and high-throughput vascular-on-chip platform to study cardiovascular disease 63

Camacho Londoño, Juan E.

Presenter: Malz, Michelle

OCaR2 determines calcium-release from NAADP-sensitive calcium-stores in cardiomyocytes critical for fatal ventricular arrhythmias 64

Cano Jorge, Mariel

In vitro modelling of atrioventricular source-sink balance relationships 65

Cavion, Federica

Development of a human multicellular engineered heart tissue 66

Chan, Andy Shing-Fung

High resolution spatio-temporal mapping reveals rare cardiomyocyte de-differentiation niches in mammalian cardiac repair 67

Chaudhary, Ayushi Devendrasingh

MSI2 knockdown as a therapeutic strategy against pathological cardiac hypertrophy 68

Ciceri, Roberta

Development of an effective pipeline based on patient-derived endothelial colony-forming cells to dissect endothelial dysfunction in thrombotic diseases 69

Cirnu, Alexandra

Viral infection accelerates disease progression in Pkp2-deficient mice revealing inflammation-driven pathology in arrhythmogenic cardiomyopathy 70

Constanty, Florian

Collagen VI in cardiac repair: cross-species insights into regenerative mechanisms 71

Buß, Jakob

Understanding the complex role of Galectin-3 in IRF3-mediated cardiac fibrosis 62

Cadena, Melissa

A tunable and high-throughput vascular-on-chip platform to study cardiovascular disease 63

Camacho Londoño, Juan E.

Presenter: Malz, Michelle

OCaR2 determines calcium-release from NAADP-sensitive calcium-stores in cardiomyocytes critical for fatal ventricular arrhythmias 64

Cano Jorge, Mariel

In vitro modelling of atrioventricular source-sink balance relationships 65

Cavion, Federica

Development of a human multicellular engineered heart tissue 66

Chan, Andy Shing-Fung

High resolution spatio-temporal mapping reveals rare cardiomyocyte de-differentiation niches in mammalian cardiac repair 67

Chaudhary, Ayushi Devendrasingh

MSI2 knockdown as a therapeutic strategy against pathological cardiac hypertrophy 68

Ciceri, Roberta

Development of an effective pipeline based on patient-derived endothelial colony-forming cells to dissect endothelial dysfunction in thrombotic diseases 69

Cirnu, Alexandra

Viral infection accelerates disease progression in Pkp2-deficient mice revealing inflammation-driven pathology in arrhythmogenic cardiomyopathy 70

Constanty, Florian

Collagen VI in cardiac repair: cross-species insights into regenerative mechanisms 71

EMBL Conference: The new cardiobiology: engineering, vascular, and molecular insights

Dahir, Rowda

Regeneration of the mouse heart 7-days post-myocardial infarction 72 through the activation of Myc and Cyclin T1

Dannenberg, Maureen

Whole genome crispr knockout screen to identify targets for cardiac 73 differentiation and disease

Dapergola, Eleni

Cytomegalovirus latency exacerbates cardiac inflammation and tissue 74 remodeling after myocardial infarction

Davis, Richard

Advancing cardiovascular drug discovery with hiPSC-derived 3D 75 cardiac models in high-throughput screening

Demenego, Giulia

Single-cell and single-nucleus multiomics reveal cardiac endothelial 76 cell heterogeneity and novel pathological processes in pressure overload-induced hypertrophy

Deshpande, Anushka

Letm1 elevation induces mitochondrial dysfunction and apoptosis in 77 cultured cardiomyocytes

Destounis, Dimitrios

Non canonical RNA-binding proteins in heart 78

Dilshat, Ramile

Modeling human heart gene regulation with organoids 79

Döttling, Pauline

Development of a screening model for proteolytic cleavage of HDAC4 80 in cardiomyocytes

Dresch Ferreira, Nikolas

Presenter: Neri, Elida

Rewiring development: transient notch inhibition shapes functional 81 cardiac microtissues

Elkahal, Jacob

A neonatal Cd24 transcript variant enhances cardiac repair after myocardial infarction 82

Erkal, Emre

Cardiac specific deletion of Camk2d and Camk2g protects from cardiac and systemic complications of cardiometabolic HFP EF 83

Fan, Junyu

Altered fibrin deposition and platelets are involved in diastolic dysfunction 84

Fan, Ryan

Identifying novel drivers of cardiac lineage specification and cardiomyocyte maturation using paired short/long-read scRNA-seq 85

Fenzl, Kai

High-throughput multimodal phenotyping maps the landscape of RBM20 variant effects in dilated cardiomyopathy 86

Finke, Daniel

A cardiac superenhancer regulates metabolic flexibility via retinoid acid signaling 87

Ghouse, Zakiya

Molecular mechanisms of RBM20 cardiomyopathy 88

Gladys, David

Role of ATGL for ABHD5-dependent proteolysis of histone deacetylase 4 in the heart 89

Guo, Qing

NIMA related kinase 9 regulates essential light chain phosphorylation and cardiac contractility in dilated cardiomyopathy 90

Guru, Anwesha

Understanding the nanoscale changes in cardiac extracellular matrix in aging 91

EMBL Conference: The new cardiobiology: engineering, vascular, and molecular insights

Habbes, Jennifer	
A cross-model comparison of heart failure in mice	92
Hauff, Natalie	
Role of the enzymatic activity of class Ila histone deacetylases for diastolic dysfunction in a mouse model for heart failure with preserved ejection fraction	93
Haydar, Shaza	
Modeling QT interval prolongation via CRISPRi perturbation of KCNJ2 enhancers	94
Herbert, Louisa	
Role of OCaR2 in calcium signaling in human heart organoids	95
Herrmann, Sabrina	
Diverse three-dimensional modelling of the human heart using human induced pluripotent stem cell-derived cardiac cell types	96
Inocêncio, Lara	
Billion-scale production of hiPSC-derived cardiac cells for next generation bioengineered tissues for heart regeneration	97
Kaltenbach, Anna	
Adrenergic signaling regulates post-infarct immune cell response in the pericardial adipose tissue	98
Kayman, Gülsüm	
Differential modulation of epicardial activation via the Fibulin-2–Nupr1b axis dictates cardiac regeneration after injury	99
Khoshdel Rad, Niloofar	
Human multicellular cardiovascular microtissues for modeling fibrosis and evaluating antifibrotic therapies	100
Kirschbaum, Theresa	
PRMT5 and PRMT7 determine cardioprotection in response to hypoxia	101

Koebbe, Laura	
Rare functional variants in FBN2 are strong genetic determinants for bicuspid aortic valve disease	102
Korosteleva, Anastasiia	
Space Base: spatial dissection of base-edited Rbm20-mutant dilated cardiomyopathy mice hearts	103
Kuhn, Michaela	
Heart-to-lung miscommunication: role of phosphodiesterase 2A in pulmonary endothelial inflammation after myocardial infarction	104
Kumar, Amit	
Success rate and variability of diabetes induction by high-fat diet in male C57BL/6J Mice	105
Kumari, Anita	
Cardiocrine signaling as a regulator of cardiac homeostasis and fibrosis	106
Lakkaraju, Sricharan	
Proteolysis of histone deacetylase 4 protects from cardiometabolic disease	107
Laurette, Patrick	
Distinct transcriptional regulatory networks drive disease cell states in murine heart disease models	108
Li, Juan	
Comparative evaluation of class IIa HDAC inhibition with standard-of-care therapies in HFpEF	109
Luxan, Guillermo	
Increased expression of Tbx20 in aged cardiac pericytes induces fibrosis and reduces diastolic function	110
Matzer, Ingrid	
CaMKII-anchoring in hypertensive cardiomyopathy	111

Miklovic, Matúš

Myocardial infarction with precapillary pulmonary hypertension: a new rat heart failure model with progressive right and left ventricular remodelling 112

Monge-Mora, Felipe

Incorporation of hiPSC-derived macrophages into epicardiods models yolk sac macrophage colonization of the developing heart 113

Morkos, Merna

Targeting innate immune response in cardiac hypertrophy 114

Müller, Linda

Dysregulated ribonucleoprotein granules impair mitochondrial function in RBM20-dilated cardiomyopathy 115

Muñoz Verdú, Ana

Regulatory architecture of dilated cardiomyopathy revealed by chromatin interaction and multi-omics integration 116

Nazari Jeirani, Mahdis

Automated high-throughput screening of engineered human cardiac tissues using myrPlate technology 117

Negroni, Alessia

Single-nucleus transcriptomic profiling of pediatric dilated cardiomyopathy to characterize developmental and disease-specific perturbations 118

Neuberger, Laura

The pro- and anti-inflammatory role of interferon gamma stimulated GBP5 in cardiomyocytes 119

Olivares, Abiram

Species-specific maturation of in vitro derived pacemaker cardiomyocytes 120

Ottenheijm, Roger

A new Calcium biology in the heart: lysosomal channels in arrhythmogenic cardiomyopathies 121

Palmer, Jack
Leveraging the human heart atlas to drive cardiomyocyte maturation in vitro 122

Paluvai, Harikrishnareddy
Redox-dependent activation of HDAC4 drives HFpEF pathogenesis and metabolic dysfunction 123

Pan, Bangfen
Generation of multicellular engineered heart tissues derived from human induced pluripotent stem cells for disease modeling 124

Pancera Laurindo, Caroline
Genomic insights into fat distribution: regulatory variants linking adipose function and cardiometabolic risk in an admixed Brazilian population 125

Pant, Priyanka
Dissecting the pathogenic mechanisms in RBM20 cardiomyopathy; missplicing vs. granule formation 126

Pashapour, Sadaf
Scientific core facility for microfabrication and microfluidics 127

Pesl, Martin
Mechanobiological distinction of focal and conductive arrhythmias by atomic force microscopy 128

Pointner, Felix
Proteomics-guided selection of human tissue derived bioinks for cardiac tissue engineering 129

Poláčková, Anežka
Diabetic cardiomyopathy modelling using human pluripotent stem cell derived cardiac organoids 130

Pozzer, Camilla
DSP-AS1 lncRNA as a possible target for the treatment of desmoplakin cardiomyopathy 131

EMBL Conference: The new cardiobiology: engineering, vascular, and molecular insights

Rego Gregorio, Karen Cristina	
From genome to heartbeat: Kptn links mTORC1 control to stress-induced bradycardia	132
Reznick, Jane	Presenters: Reznick, Jane; Jacome, Maria Sol
Incomplete cardiomyocyte maturation preserves regenerative capacity in the adult naked mole-rat heart	133
Rivero Garcia, Ines	
Bulk and single-nucleus RNA-seq reveal partial transcriptome recovery during reverse remodelling and predict ligands driving cardiac recovery	134
Rizakou, Anna	
Tracking antigen-specific T cell responses in patients with myocardial infarction	135
Rodriguez Carreras, Yago	
A simple and scalable 3D suspension protocol for hiPSC-derived cardiomyocyte production	137
Rodriguez, Lara	
CNT-based conductive hydrogel patches and growth substrates for cardiac regeneration	136
Roes, Maxime	
Mechanism of sepsis-induced cardiomyopathy: a comparison between early- and late-stage sepsis	138
Saadatmand, Alireza	Presenter: Fernandez, Teresa
The role of akr1b1 and glo1 in heart failure	139
Saadatmand, Alireza	
Essential role of Nr4a1 in diabetic cardiomyopathy	140
Sacchi, Francesca	
Fine-tuning the activity of corticosteroid receptors unlocks cardiomyocyte proliferative and regenerative potential	141

Sahoglu Goktas, Sevilay	Presenter: Meissner, Anja	
Blood pressure lowering attenuates brain complications developing after myocardial infarction in a comorbid mouse model	142	
Sahoglu Goktas, Sevilay		
Sphingosine-1-phosphate signaling and cardiac nerve remodeling after myocardial infarction	143	
Sande-Melon, Marcos		
Convergent phosphoproteomics networks as therapeutic targets across genetically diverse dilated cardiomyopathy	144	
Schell, Richard		
Prostaglandin E2-MEF2D signaling drives inflammation-induced acute heart failure	145	
Schmitt, Anna-Maria		
Combined in vitro and in vivo profiling of adipokine and immune dynamics in perivascular adipose tissue during TPU graft integration	146	
Schogger, Eric		
IL6-driven activation of class IIa HDACs impairs mitochondrial network integrity and metabolic function in human iPSC-derived cardiomyocytes	147	
Siegrist, Hans		
Atherosclerotic mice develop hypertension and diastolic dysfunction which are improved by inactivating the enzymatic function of HDAC4	148	
Sigrist, Paul		
Muscle LIM protein is a non-canonical RNA-binding protein with RNA-dependent cytoskeletal interactions	149	
Silva, Caio Mateus		
Engineering the fibrotic niche: a 3D microtissue model to validate the lncRNA MIR100HG as a therapeutic target	150	
Spitzer, Jasper		
The AAtlas - atlas of the aorta in health and disease	151	

Teunissen van Manen, Iris	
High-throughput cardiac organoid production using micro-encapsulated hiPSC to study the human heart in health and disease	152
Throm, Vivien	
Organellar Ca ²⁺ Regulator 2 (OCaR2) critically controls primary hemostasis by regulating Ca ²⁺ release from NAADP-mediated Ca ²⁺ stores	153
Thukha, Thadoe	
Mechanistic investigations of environmental cardiotoxicity and lysosomal calcium signaling as drivers of cardiac remodeling in human epicardiods	154
Toiviala, Maaret	
The role of liquid-liquid phase separation of HDAC4 upon oxidative stress in HFpEF	155
Toiviala, Maaret	
The role of liquid-liquid phase separation of HDAC4 upon oxidative stress in HFpEF	156
Tomar, Ashutosh	
Disruption of CaMKII–HDAC4 Axis protects from cardiometabolic HFpEF	157
Trogisch, Felix A	
Paracrine signaling of vascular cells drives organ dysfunction in the diseased heart	158
van den Hurk, Eva	
Cardiac conversations: notch signaling as a tgf- β independent modulator of cardiac fibroblast phenotype and matrix remodeling	159
Veras, Ioanni	
Temporally resolved spatial transcriptomics reveals heterogeneous, regionally distinct myocardial remodeling in pressure overload	160

Walder, Ramona

Towards treatment of dilated cardiomyopathy: serine biosynthesis as a potential target 161

Wang, Jingyu

Multi-omic profiling reveals cardiac microenvironments and cellular diversity in iPSC-derived cardiac bioengineered heart muscle organoids 162

Wegener, Justus

Presenter: Lehnart, Stephan

Dysferlin recruitment to and reorganization of local sarcolemmal membrane nanodomains in the post-myocardial infarction border zone 163

Wu, Bailin

Investigating the role of Actin regulators in promoting CM invasion during zebrafish heart regeneration 164

Yadav, Babita

KIF1C overexpression enhances cardiac regeneration and function in hypertrophic mouse hearts 165

Yan, Xinyi

Potential of asparagine synthetase (Asns) to promote heart regeneration under reversible reprogramming of cardiomyocytes 166

Yokokawa, Ryuji

Vascular microphysiological systems (MPS) for kidney organoid culture 167