

SAB 2023

List of Posters



MAX PLANCK INSTITUTE
FOR HEART AND LUNG RESEARCH
W. G. KERCKHOFF INSTITUTE

Author(s)	Poster Title	Location
Department I: Cardiac Development & Remodeling (Braun)		MPI Ludwigstr., E3
Silke Kreher	MATR3-based Alternative Splicing is Indispensable for Lymphangiogenesis	1
Lei Wang	Enhanced genetic cell lineage tracing and manipulation in the vasculature system	2
Fan Wu	Spurious transcription causing innate immune responses is prevented by 5-hydroxymethylcytosine	3
Salma Hachim	INO80 governs vascular smooth muscle cell contractility and metabolism	4
Maria Weiss	Mito-Inc controls cardiac BCAA metabolism and heart hypertrophy by allosteric activation of BCKDH	5
Theresa Gerhardt	Molecular function of an antisense long non-coding RNA in alternative splicing and Calcium handling	6
Yvonne Eibach	Deciphering the functional role of RBPMS ^{POS} RNP granules in cardiomyocytes	7
Maximilian Staps	Mettl3 Is Indispensable for Heart Development	8
Lu Han	Use of a dual Recombinase system enhances the precision of cardiomyocyte lineage tracing and manipulation	9
Andreea Bostean	Crosstalk of metabolism and epigenetics in heart development and disease	10
Xiang Li	Inhibition of fatty acid oxidation stimulates KDM5-mediated H3K4me3 demethylation and enables heart regeneration in adult mice	11
Shan Lin	Mitotic spindle formation and formation of the contractility apparatus in embryonic cardiomyocytes depend on splicing fidelity mediated by RBPMS and RBPMS2	12
Hang Liu	Role of SUV4-20H1 in Preventing Congenital Heart Defects	13

Dong Ding	Dynamic Modulation of PAX7 Binding in Muscle Stem Cells from Quiescence to Proliferation	14
Xinyue Guo	Interplay of energy metabolism and epigenetics in regulation of MuSCs homeostasis: the function of Cpt1a	15
Justin Law	Characterisation of dynamic m ⁶ A RNA modification during myogenic lineage progression	16
Shuichi Watanabe	Non-canonical Hippo targets control muscle stem cell activation	17
Ting Zhang	Replication collisions induced by de-repressed S-phase transcription are connected with malignant transformation of adult stem cells	18
Jingjing Du	Gut Microbiota Affect the Fate of MuSCs	19
Yundong Peng	GPCRs-G12/13-RhoA signaling axis locks muscle stem cell in quiescence	20
Qing Yin	The function of TFPT/Ino80 complex in MuSCs	21
Laia Cañes Esteve	Expression of REG3 β by smooth muscle cells affects atherosclerosis in mice	22
Maria Elisa Almeida Goes	REG3 β -mediated crosstalk between cardiac lymphatics and leukocytes after myocardial infarction	23
Holger Lörchner	Recruitment of proangiogenic neutrophils by TNF α -mediated activation of CCR6 and CCL20 is instrumental for muscle revascularization	24
Poonam Kumari	Dual role of Sirtuin7/NPM axis in stress responses and cancer	25
Keynoosh Khalooghi	Transition-state, branch-point associated cells give rise to the majority of ciliated cells in the mouse lung	26
Chiara Mura	Regulation of Bronchioalveolar Stem Cells in health and disease	27
Isabelle Salwig	Tumorigenic potential of bronchioalveolar stem cells	28
Ewelina Betleja	Mesenchymal Stem Cell Therapy in Influenza Induced Acute Lung Injury	29
Research Group: Circadian Regulation of Cardiometabolism (Dierickx)		MPI Ludwigstr., E3
Kai Cui	Investigating the Role of the Circadian Nuclear Receptors REV-ERB α/β in Dilated Cardiomyopathy at the Single Cell Level	D1
Bryce Carpenter	Circadian regulation of cardiac NAD ⁺ and metabolism by REV-ERBs in development and heart disease	D2

Research Group: Epigenetics (Gu)		MPI Ludwigstr., E3
Hongbiao Huang	Identification of driving force in the progression of Kawasaki disease at single cell resolution	G1
Department II: Pharmacology (Offermanns)		MPI Ludwigstr., Foyer E2
Wessam Alnouri	Resolvin-D Series as biased allosteric modulators of the EP4 receptor	1
Xinyi Chen & Wessam Alnouri	The role of FFAR4 and EP3 under cold exposure The	2
Xinyi Chen	Role of FFAR4 in Islet Macrophages	3
Remy Bonnavion	GPR182 is an endothelium-specific atypical chemokine receptor	4
Remy Bonnavion	Plexin-B1/B2-Semaphorin4 interaction mediates β - cell communication to regulate insulin secretion	5
Remy Bonnavion	Plexin-B receptors regulate cholangiocytes quiescence	6
Remy Bonnavion & Haruya Kawase	GPR182 blockade to improve recovery after myocardial infarction	7
Haruya Kawase	Soluble Amyloid Precursor Protein- α mediates cardiac repair following myocardial infarction	8
Haaglim Cho	Endothelial adrenomedullin/ $G\alpha_s$ signaling causes insulin resistance in type-2 diabetes	9
Young-June Jin	Endothelial PKN1 phosphorylates histone H3.3 at serine 31 to link flow-induced signaling to proatherogenic gene expression	10
Young-June Jin	Protein kinase N2 mediates flow induced eNOS activation and vascular tone regulation	11
Rui Li	Endothelial FAT1 inhibits angiogenesis by controlling YAP/TAZ protein degradation via E3 ligase MIB2	12
Rui Li	The tumor suppressor FAT1 controls YAP/TAZ protein degradation and tumor cell proliferation via E3 ligase MIB2	13
Guozheng Liang	Tenascin-X mediates flow-induced suppression of endothelial-to-mesenchymal transition and atherosclerosis	14
Guozheng Liang	The role of Tenascin-X in vascular smooth muscle	15
Kenneth Roquid	Tumor cell dormancy in the perivascular niche	16
Boris Strilic	Mechanisms of tumor cell survival in the circulation	17

Akiko Nakayama & Boris Strilic	Suppression of CCL2 angiocrine function by adrenomedullin promotes tumor growth	18
ShengPeng Wang & Boris Strilic	Mechanosensation by PIEZO1 is required for leukocyte diapedesis	19
Adriana Vucetic	Role of G α q protein in erythrocytes during tumor metastasis	20
Shenglan Zeng	Functions of TMEM120A in endothelial cells	21
Research Group: G-Protein-Mediated Signalling (Wettschureck)		MPI Ludwigstr., Foyer E2
Jorge Carvalho (presented by Nina Wettschureck)	GPRC5B Controls Smooth Muscle Contractility and Differentiation by Inhibiting Prostacyclin Receptor Signaling	22
Malarvizhi Gurusamy (presented by Nina Wettschureck)	GPCR P2Y10 facilitates chemokine-induced CD4 T cell migration through autocrine ATP and LysoPS	23
Jeonghyeon Kwon	The role of GPRC5B in the regulation of prostanoid receptor function in macrophages	24
Jingchen Shao	The Role of Two Novel Orphan GPCRs in Regulating Endothelial Cell Function	25
Jingchen Shao	Consequence of GPR153 Deficiency in Vascular Smooth Muscle Cells	26
Tianpeng Wang	Role of Orphan GPCR GPRC5C in Smooth Muscle Cells	27
Niharika Shiva	Damage control in the cardiovascular system: defining the role of EC-derived neuropeptides	28
Department III: Developmental Genetics (Stainier)		MPI Ludwigstr., E1
Paolo Panza	The mouse lung microvasculature promotes alveolar type 2 cell differentiation before birth	1
Radha Ajay Kulkarni	Role of the epicardium in cardiomyocyte development	2
Yanli Xu	Dissecting the cell type-specific roles of Hand2 during zebrafish cardiac development	3
Marga Albu	Building the muscular wall in the atrium involves Wnt-regulated cell elongation and orientation	4
Masahiro Chatani	Cloche/Npas4l is Essential for Hematopoiesis and Vasculogenesis in Medaka	5
Marco Tarasco	Zebrafish as a model to study atrial fibrillation	6
Annika Nürnberg	Cellular regulation of pacemaker activity in zebrafish	7

Srinath Ramkumar	Extracellular Matrix Proteoglycan Prelp modulates laminin mediated cardiac morphogenesis	8
Thomas Juan	Conditional knockdown of cardiac troponin T using Cre-lox and degron strategies	9
Agatha Ribeiro da Silva	Egr3 promotes endocardial cell migration required for atrioventricular valve formation	10
Kriti	Identification of Different Cardiac Valve Populations During Zebrafish Embryogenesis	11
Samuel Capon	Mapping the genetic loci that contribute to phenotypic robustness in zebrafish Fibronectin mutants	12
Maëlle Bellec	Transcriptional adaptation during zebrafish development	13
Jie Liang	Investigating transcriptional adaptation (TA) using a transgenic approach in zebrafish	14
Jordan Welker	Partial sequence identity in a 25 bp promoter element is sufficient for transcriptional adaptation in the <i>Caenorhabditis elegans act-5/act-3</i> model	15
Y. Charlie Song	New models of transcriptional adaptation in <i>C. elegans</i>	16
Vahan Serobyán	<i>Caenorhabditis elegans</i> as a model organism to investigate transcriptional adaptation	17
Hamzeh Haj Hammadeh	Transcriptional Adaptation in <i>Neurospora crassa</i>	18
Christopher Dooley	Screening for transcriptional adaptation models in humans	19
Preethi Krishnaraj	Investigating the relationship between gene silencing and transcriptional adaptation	20
Gabrielius Jakutis	Using NMD-prone transgenes and RfxCas13d effector to study transcriptional adaptation	21
Brian Juvik	Identification of candidate adapting genes by transient overexpression of PTC-bearing transcripts	22
Lihan Xie	Chromatin remodeling is a signature of transcriptional adaptation in the mouse <i>Actg1-Actg2</i> model	23
Kuan-Lun Hsu	Identification of key sequences for transcriptional adaptation in the <i>Actg1/Actg2</i> model	24
Mikhail Sharkov	Identification of key mRNA and protein factors for transcriptional adaptation in mouse <i>Actg1</i> mutant cells	25
Cansu Çirzi	Genetic compensation in monogenic disorders triggered by mutant mRNA degradation	26

Pinelopi Goumenaki	The MyD88 signaling axis regulates the inflammatory response during adult heart regeneration in zebrafish	27
Mridula Balakrishnan	Role of sympathetic reinnervation during zebrafish cardiac regeneration	28
João Cardeira da Silva	Antigen presentation is critical for zebrafish cardiac regeneration	29
Tzu-Lun Tseng	Dynamics of macrophages involved in cardiac regeneration in adult zebrafish	30
Armaan Mehra	Investigation of the role of <i>mfg8a</i> in zebrafish cardiac regeneration	31
Qianchen Wang	Dissecting the adaptive immune response during cardiac regeneration	32
Tonatiuh Molina Villa	Viscoelastic properties of the Extracellular matrix during heart regeneration in adult zebrafish	33
Sapna Kumari Meena	Investigating the role of <i>Mustn1b</i> during zebrafish cardiac regeneration	34
Savita Gupta	Identification and modulation of angiocrine factors regulating heart regeneration	35
Pooja Sagvekar	Transcriptomic analyses of endocardial cells reveal cellular heterogeneity and a potentially pro-regenerative endo-cardiomyocyte crosstalk in the adult zebrafish heart	36
Debapratim Sil	Investigating the role of Granulins in Zebrafish Cardiac Regeneration	37
Laura Peces & Barba-Castaño	Is <i>ErbB2</i> signalling the main pathway leading to cardiomyocyte dedifferentiation during cardiac regeneration in zebrafish?	38
Zhenyu Wang	Roles of <i>Vegf</i> family members in zebrafish coronary formation and cardiac regeneration	39
Shengnan Zhao	Regenerative population of vascular endothelial cells at single-cell resolution in zebrafish	40
Xiaohui Wang	The Role of Ependymal Radial Glia on Vascular Repair after Spinal Cord Injury	41
Scientific Service Groups		MPI Ludwigstr., Foyer E1
Stefan Günther (Next Gen Seq Platform)	Introducing the NGS Core	SG1

Department IV: Lung Development and Remodeling (Seeger)		MPI Parkstr., Hall of Honor
Edibe Avci	HDAC9 deficiency drives premature senescent signature in alveolar epithelial type II cells	1
Golnaz Hesami	IRG1/Itaconate axis as an immuno-metabolic regulator of pulmonary hypertension	2
Fatemeh Khassafi	Transcriptional profiling unveils new molecular subgroups of adaptive and maladaptive right ventricular remodeling in pulmonary hypertension	3
Giovanni Maroli	Protective Role of ADAR1-Dependent RNA Editing against Vascular Remodeling Associated to Pulmonary Hypertension	4
Anoop Cherian & Prakash Chelladurai	Epigenetic reactivation of developmental transcription factors in adult pulmonary hypertension	5
Siavash Mansouri	IRG1/Itaconate axis regulates lung tumorigenesis via pentose phosphate pathway	6
Poonam Sarode	HDAC2-SP1 orchestrated M2-like macrophage phenotype drives lung cancer growth – novel intervention strategy	7
Annika Karger	Long non-coding RNA ADPGK-AS1 regulates macrophage mitochondrial and phenotypic state – impact on lung cancer biology	8
Kati Turkowski	Plasticity and heterogeneity of macrophages in lung tumors – integrative single cell omics	9
Öznur Cetin	Specific signals from Influenza infection induce tumor cell killing by orchestrating macrophage phenotype	10
Joshua Ayoson	IL-17-producing CD8 T cell subpopulation induce a metabolic enriched tumor microenvironment enabling lung cancer progression	11
Spyridoula Barmpoutsi	“Do not eat me” LILRB4 signaling as a novel macrophage immunotherapy in lung cancer	12
Philipp Arndt	Lung cancer macro-environment induces macrophage activation and phenotype via metabolic modulators	13