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CEB-2023

APRIL 24-26, 2023 | HOUSTON, TX
APRIL 27, 2023 | FULLY VIRTUAL

Program

4th International Conference on

Cell and Experimental Biology

April 24-26, 2023

DoubleTree by Hilton - Houston, TX & Live Stream

April 27, 2023

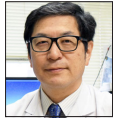
Fully Virtual

Chairs: Lan Guan and Robert J. Schwartz

Time: 08:30 - 12:00

08:00 Registrations

08:25 Introduction



08:30

Molecular Mechanism of Immunological Tolerance by SOCS and NR4a

Akihiko Yoshimura, Ph.D., Professor, Department of Microbiology and Immunology, Keio University School of Medicine, Japan



09:00

Exploring and Exploiting the Spatial Constraints of Cell Signaling

John D. Scott, Ph.D., FRS, Edwin G. Krebs-Speights Professor of Cell Signaling & Cancer Biology, University of Washington School of Medicine, Seattle, WA



09:30

STEMIN and YAP5SA Synthetic Modified mRNA Novel Treatment for Heart Diseases

Robert J. Schwartz, Ph.D., Hugh Roy and Lillian Cranz Cullen Distinguished Professor, Department of Biology & Biochemistry, University of Houston, TX



10:00

Transforming Healthcare Using Deep Data and Remote Monitoring

Michael Snyder, Ph.D., Director, Center for Genomics and Personalized Medicine, Professor of Genetics, Stanford School of Medicine, Stanford University, CA

10:30-11:00 Coffee & Connect @ Pre-function Area



11:00

Structural Basis for Barrier Mechanism and Dynamics of Co-transport

Lan Guan, M.D., Ph.D., Professor, Department of Cell Physiology and Molecular Biophysics, Director, Center for Membrane Protein Research, Texas Tech University Health Science Center, Lubbock, TX



11:30

Functional Genomics and Epitranscriptomics of tRNA from Cells to Microbiomes

Tao Pan, Ph.D., Professor, Department of Biochemistry and Molecular Biology, University of Chicago, IL

Cell Signaling and Cancer Biology

Time: 12:00 - 17:40

Chairs: Jie Xu and Anna Bianchi-Smiraglia

12:00 Endothelial-to-Osteoblast Conversion in Osteoblastic Metastasis of Prostate Cancer

Paul Corn, M.D., Ph.D., Chair *ad interim*, Professor, Genitourinary Medical Oncology, UT MD Anderson Cancer Center, Houston, TX

12:20 Translesion Synthesis in Cancer Therapy and Viral Infection

Pei Zhou, Ph.D., Professor, Department of Biochemistry, Duke University School of Medicine, Durham, NC

12:40 Functional Mapping of Microbial Metabolites to Enhance Cancer Immunotherapy Efficacy

Virginia A. Pedicord, Ph.D., Group Leader - Sir Henry Dale Fellow, Department of Medicine and Cambridge Institute of Therapeutic Immunology and Infectious Disease, University of Cambridge, UK

13:00-14:00 Lunch @ Dallas & Houston

14:00 Mitochondrial Targeting to Prevent Cancer Progression

Benny A. Kaipparettu, Ph.D., Associate Professor, Department of Molecular and Human Genetics, Baylor College of Medicine, Houston, TX

- 14:20 Targeting Interleukin-6 to Rescue Antitumor T Cells from Becoming Pathogenic**
Yared Hailemichael, Ph.D., Department of Melanoma Medical Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX
- 14:40 Inhibiting Lung Adenocarcinoma Growth by Inducing Apoptosis Independent of Bcl-2 Proteins**
Chi Li, Ph.D., Associate Professor, Experimental Therapeutics Group, Brown Cancer Center, Department of Medicine, University of Louisville, KY
- 15:00 Deciphering Therapeutic Targets in Gynecologic Malignancy**
Yunfei Wen, Ph.D., Assistant Professor, Departments of Gynecologic Oncology and Reproductive Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX
- 15:20 Role of T Follicular Helper Cells in Anti-tumor Immunity**
Roza Nurieva, Ph.D., Associate Professor, The University of Texas MD Anderson Cancer Center, Houston, TX
- 15:40 Therapeutic Targets in Preclinical Urological Models**
Niki Zacharias Millward, Ph.D., Assistant Professor, Dept. of Urology, University of Texas MD Anderson Cancer Center, Houston, TX

16:00-16:20 Coffee Break @ Pre-function Area

- 16:20 SEQing New Functions for AhR in MYCN-amplified Neuroblastoma**
Anna Bianchi-Smiraglia, Ph.D., Assistant Professor of Oncology, Department of Cell Stress Biology, Roswell Park Comprehensive Cancer Center, Buffalo, NY
- 16:40 USP22 Regulates Signaling Cascades in Development and Disease**
Evangelia Koutelou, Ph.D., Assistant Professor, Department of Epigenetics and Molecular Carcinogenesis, The University of Texas MD Anderson Cancer Center, Houston, TX
- 17:00 Patients with Systemic Anaplastic Large Cell Lymphoma: Potential Candidates for PD-1 Blockade Immunotherapy**
Jie Xu, Ph.D., Associate Professor, Department of Hematopathology, The University of Texas MD Anderson Cancer Center, Houston, TX
- 17:20 Syntaphilin Regulates Mitochondrial Dynamics and Tumor Cell Invasion**
M. Cecilia Caino, Ph.D., Assistant Professor, Department of Pharmacology, University of Colorado Denver, Aurora, CO

Poster Presentations (17:40-19:00) @ Dallas & Houston

- CEB23-P1 Proteomic Profiling of Fatty Acid Amide Binding Proteins in *Drosophila melanogaster***
Suzeeta Bhandari, Department of Chemistry, University of South Florida, Tampa, FL
- CEB23-P2 Network Enhanced Similarity Search Increases the Predictive Power of a Highly Heterogenous Network**
Everest Castaneda, Baylor University, Waco, TX
- CEB23-P3 The Effect of CerS6 on Melanoma Cells B16F10 and BP Cells**
Guanshu Liu, The University of Texas MD Anderson Cancer Center, Houston, TX
- CEB23-P4 Time-dependent Activation of Molecular Signatures is Associated with Trimethylamine-N-oxide Induced Endothelial Dysfunction in Human Microvascular Endothelial Cells**
Meyammai Shanmugham, Science, Math & Technology, Singapore University of Technology & Design, Singapore
- CEB23-P5 Natterin-like Depletion by CRISPR/Cas9 Impairs Zebrafish (*Danio rerio*) Embryonic Development**
Carla Lima da Silva, Immunoregulation Unit of the Laboratory of Applied Toxinology (CeTICs/FAPESP), Butantan Institute, Brazil
- CEB23-P6 Evaluating the Toxicological Impacts of Nanoparticles Extracted from Sunscreens Using Human Keratinocytes**
Darien Kwek, School of Materials Science and Engineering, Nanyang Technological University, Singapore

- CEB23-P7** **Role of DUF647 Containing Proteins in Vitamin B6 Homoeostasis**
Melissa Hassmer, San Francisco State University, CA
- CEB23-P8** **Impact of MKP-2 Deficiency on Bleeding Times and Protein Expression in Platelets**
Cassandra Secunda, Department of Biological Sciences, University of Alabama in Huntsville, AL
- CEB23-P9** **The Role of MKP-2 in Cellular Senescence and Metabolic Function**
Morgan Welch, Department of Biological Sciences, University of Alabama in Huntsville, AL
- CEB23-P10** **The Effects of Dictyostelium PP2A/B56 and Superoxide Dismutase C (SodC) on the Ingestion and the Killing of Live Bacteria *Klebsiella aerogenes***
Victor Osorio-Castillo, Florida International University, Miami, FL
- CEB23-P11** **Effects of Water from Greater Houston Watersheds on Colorectal Adenocarcinoma Cell (HT-29) Viability: Time-dependent Toxicity and Insensitivity to Tyrphostin Treatment**
Sekinat O. Atobiloye, Texas Southern University, Houston, TX
- CEB23-P12** **Cytotoxic and Apoptotic Effects of Vardhamana Pippali Rasayana (VPR) in Human Breast Cancer Cells**
Richa Tripathi, Ph.D., All India Institute of Ayurveda; ICMR-NICPR, India
- CEB23-P13** **Circulating Exosomal MicroRNAome from Newly Identified Essential Hypertensive Adults**
Paulina Tan, Postgraduate Candidate, University of Nottingham, Malaysia

Networking & Reception (18:00-19:00) @ Dallas & Houston

End of Day 1

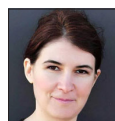
Chair: Anna Bianchi-Smiraglia

Time: 08:15 - 09:55

- 08:15** **Vimentin Regulates Colorectal Cancer Progression by Interaction with Myosin 10**
Zofia Ostrowska-Podhorodecka*, Ph.D., Postdoctoral Fellow, Department of Dentistry, University of Toronto, Canada
- 08:30** **Identification of a CD4⁺ T Cell Line with Treg-like Activity**
Kirsten Pfeffer*, School of Life Sciences, Arizona State University, Scottsdale, AZ
- 08:45** **Mechanistic Insight on how 1,4-dihydropyridines Induce T β RII Degradation**
Stephanie Wojtowicz*, Department of Physiology and Pharmacology, Schulich Medicine and Dentistry, Canada
- 08:55** **All Trans Retinoic Acid Modulates the Retinoic Acid Receptor Signaling Pathway in Merkel Cell Carcinoma Cells**
John Charles Rotondo*, Ph.D., Department of Medical Sciences, University of Ferrara, Italy
- 09:10** **Elucidation of Necroptosis Pathway Using Optogenetics**
Teak-Jung Oh*, School of Molecular & Cellular Biology, University of Illinois at Urbana-Champaign, IL
- 09:25** **Dysregulated Cellular Dynamics in Insulin Resistance**
Alessandra Dall'Agnese*, Ph.D., Postdoctoral Fellow, Whitehead Institute, Cambridge, MA
- 09:40** **Transcriptome Changes in Cervical Cancer Cells Due to Small Interfering RNA Induced Inhibition of Notch-3: the Enigma Unravalled**
Richa Tripathi, Ph.D., All India Institute of Ayurveda; ICMR-NICPR, India

Keynote Speaker

Time: 09:55 - 10:25



09:55

From Single-cell Biology to Cell-centric Drug Discovery

Virginia Savova, Ph.D., Global Head of Single-Cell Biology, Precision Medicine & Computational Biology (PMCB), SANOFI, Cambridge, MA

10:25-10:40 Coffee & Connect @ Pre-function Area

Biochemistry and Molecular Biology

Chairs: Rachel K. Miller (10:40 - 13:00)
Sanja Sever (13:40 - 16.00)
Yan Chun (16:00 - 17.45)

Time: 10:40 - 17:45

- 10:40** **Structure Study of Platelet, from Molecular to Cell**
Zhao Wang, Ph.D., Assistant Professor, Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX
- 11:00** **The Balance Between Gasdermin D and Sting Signaling Shapes the Severity of Schistosome Immunopathology**
Parisa Kalantari, Ph.D., Assistant Professor, Department of Veterinary and Biomedical Sciences, Pennsylvania State University, PA
- 11:20** **Characterizing the Destructive Exosome Signature Prompted by Conventional Smoking**
Matthew C. Madison, Ph.D., Assistant Professor, School of Health Professions, Clinical and Diagnostic Sciences, The University of Alabama at Birmingham, AL
- 11:40** **Crosstalk Between Regulatory T Cell and Hair Follicle Stem Cell is Dependent on Glucocorticoid Signaling**
Ye Zheng, Ph.D., Associate Professor, Nomis Center for Immunology & Microbial Pathogenesis, Salk Institute for Biological Studies, La Jolla, CA

- 12:00** **Mechanisms Driving Cell-cell Adhesion During Nephric Tubulogenesis**
Rachel K. Miller, Ph.D., Associate Professor, Pediatric Research Center, Department of Pediatrics, McGovern Medical School, UT Health, Houston, TX
- 12:20** **Structural Basis of DNA Polymerase Catalyzed DNA Synthesis, Error Incorporation, and Double-strand Break Repair**
Yang Gao, Ph.D., Assistant Professor, Department of BioSciences, Rice University, Houston, TX
- 12:40** **The ANT Family and the Mitochondrial Permeability Transition Pore**
Jason Karch, Ph.D., Assistant Professor, Department of Integrative Physiology, Baylor College of Medicine, Houston, TX
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- 13:00-13:40 Lunch @ Dallas & Houston**
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- 13:40** **Molecular Basis of NAADP-evoked Endolysosomal Calcium Signaling**
Xin Guan, Ph.D., Research Investigator, Department of Anesthesiology & Perioperative Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX
- 14:00** **RNA-binding Protein and Precursor mRNA Decay in Inflammation**
Je-Hyun Yoon, Ph.D., Associate Professor, Department of Biochemistry and Molecular Biology, Medical University of South Carolina, Charleston, SC
- 14:20** **Imaging RNA in and Purifying RNA-protein Complexes from Living Cells**
Peter Unrau, Ph.D., Professor, Department of Molecular Biology and Biochemistry, Simon Fraser University, Canada
- 14:40** **Utilization of tRNA as a Cofactor Beyond Ribosomal Translation**
Yi Zhang, Ph.D., Assistant Professor, Department of Biochemistry, School of Medicine, Case Western Reserve University, Cleveland, OH
- 15:00** **Functional Variants in LMNA and DSP are Revealed by the Qatar Genome Programme**
Borbala Mifsud, Ph.D., Assistant Professor, Division of Genomics and Translational Biomedicine, College of Health and Life Sciences, Hamad Bin Khalifa University, Qatar
- 15:20** **Epitranscriptomic Regulation of Gut Epithelial Homeostasis**
Yan Chun Li, Ph.D., Associate Professor, Department of Medicine, The University of Chicago, IL
- 15:40** **Using 3D Single-molecule Fluorescence Microscopy to Map Cellular Function**
Anna-Karin Gustavsson, Ph.D., Assistant Professor and CPRIT Scholar in Cancer Research, Department of Chemistry, Rice University, Houston, TX
- 16:00** **Applying Information about miRNAs from Developmental Biology to Treat Diseases: miRNA106a can Reverse Cardiomyocyte Hypertrophy by Targeting Genes Known to Cause Heart Failure**
G. Ian Gallicano, Ph.D., Associate Professor, Department of Biochemistry and Molecular Biology, Georgetown University Medical Center, Washington, DC
- 16:20** **Decoding Single-cell Transcriptomic Phenotypes from the Cell Images Enabled by Robotic Data Acquisition and Deep Learning**
Katsuyuki Shiroguchi, Ph.D., Team Leader, RIKEN Center for Biosystems Dynamics Research (BDR), Japan
- 16:40** **Simultaneous Stabilization of Actin Cytoskeleton in Multiple Nephron-specific Cells Protects Kidney from Diverse Injury**
Sanja Sever, Ph.D., Associate Professor, Harvard Medical School Nephrology Division, Massachusetts General Hospital, Charlestown, MA
- 17:00** **Common Signaling Principles and Interconnectivity Between the ISR-UPR Networks**
Francesca Zappa*, Ph.D., Altos Labs Bay Area Institute of Science, Altos Labs, Inc., Redwood City, CA
- 17:15** **The Ubiquitin-proteasome System Assures Glomerular Filtration Barrier Integrity**
Wiebke Sachs*, Ph.D., Institute of Cellular and Integrative Physiology, University Medical Center Hamburg-Eppendorf, Germany
- 17:30** **Role of HSF-1 and Insulin/IGF-1 Signaling to Regulate the Proteostasis During Female Reproduction**
Muhammad Tahir*, Ph.D., Postdoctoral Fellow, Department of Cell Biology and Anatomy, New York Medical College, NY

Chair: Xiaowen Bai

Meeting Room - Arizona Ballroom

Time: 13:40 - 16:10

- 13:40** **TRIP12 Ubiquitination of Glucocerebrosidase Contributes to Neurodegeneration in Parkinson's Disease**
Han Seok Ko, Ph.D., Professor, Department of Neurology, Institute for Cell Engineering, Johns Hopkins University, School of Medicine, Baltimore, MD
- 14:00** **Roles of TMEM175 in Lysosomal pH Homeostasis and Parkinson's Diseases**
Tianmin Fu, Ph.D., Assistant Professor, Department of Biological Chemistry and Pharmacology, The Ohio State University, Columbus, OH
- 14:20** **Diurnal Variation as an Endogenous Neuroprotection Mechanism in a Rat Model of TBI**
Ricardo J. Martinez-Tapia, M.D., Ph.D., Research Coordinator, Department of Physiology, Facultad de Medicina, Universidad Nacional Autonoma de Mexico, Mexico
- 14:40** **Dysregulation of Glial-mediated Purinergic Signalling Leads to Atypical Neuronal Development in the Brain**
Angela Scott, Ph.D., Assistant Professor, Department of Molecular and Cellular Biology, University of Guelph, Canada
- 15:00** **Neuroprotective Roles of lncRNAs in Developmental Brain Injury**
Xiaowen Bai, Ph.D., Associate Professor, Medical College of Wisconsin, Department of Cell Biology, Neurobiology & Anatomy, Milwaukee, WI
- 15:20** **Is the Type II TGF β Receptor the Achilles' Heel of TGF β Signaling?**
John Di Guglielmo, Ph.D., Associate Professor, Department of Physiology and Pharmacology, Schulich Medicine and Dentistry, Western University, Canada
- 15:40** **Impacts of Microglial IRF4 and IRF5 on Ischemic Stroke**
Conelius Ngwa*, Ph.D., Postdoctoral Research Fellow, Department of Neurology, The University of Texas Health Science Center at Houston, TX
- 15:55** **An Axonal Signal for Dendritic Maturation: Role of Neuregulin1 Nuclear Signaling in Assembly of Hippocampal Circuits**
Prithviraj Rajebhosale*, Ph.D., Postdoctoral Visiting Fellow, Section on Genetics of Neuronal Signaling, NINDS, National Institutes of Health, Bethesda, MD

Experimental Biology and Disease Physiology

Chair: Pascaline Fru

Time: 16:10 - 17:30

- 16:10** **The Pathophysiology of Cobalamin (Vitamin B12) Deficiency Syndromes Impacting Development**
Ross A. Poche, Ph.D., Associate Professor, Department of Integrative Physiology, Baylor College of Medicine, Houston, TX
- 16:30** **Clinically Validated Expression Profiling Strongly Suggests Loss of Structural Integrity and Failing Regenerative Repair as Important Driving Forces for the Multidimensional Progression of Chronic Obstructive Pulmonary Disease**
Rolf Ziesche, M.D., Professor of Pulmonary and Internal Medicine, Medical University of Vienna; CEO and Founder, Transgenion Ltd., Austria
- 16:50** **Early Immune Responses in Acute Pancreatitis and their Role in Predicting Disease Severity in a South African Cohort**
Pascaline Fru, Ph.D., Associate Professor, Department of Surgery, School of Clinical Medicine, Faculty of Health Sciences, University of the Witwatersrand, South Africa
- 17:10** **The Molecular Pathogenesis of Diabetic Cardiomyopathy**
Jessica Pflieger, Ph.D., Assistant Professor, Fralin Biomedical Research Institute, Virginia Tech Carilion, Roanoke, VA

End of Day 2

Chair: Yao-Hua Song

Meeting Room - Seattle I&II

Time: 08:25 - 10:00

- 08:25** **Hsa-microRNA-1249-3p/Homeobox A13 Axis Modulates the Human Epithelial Cell Clonogenicity**
Chiara Mazziotta*, Ph.D., Department of Medical Sciences, University of Ferrara, Italy
- 08:40** **Uncovering New Functions of RNA Modifications in mRNA Processing**
Nicole M. Martinez, Ph.D., Assistant Professor, Department of Chemical and Systems Biology, Department of Developmental Biology, Stanford University, Stanford, CA
- 09:00** **Local Activation of Focal Adhesion Kinase Orchestrates the Positioning of Presynaptic Scaffold Proteins and Ca²⁺ Signaling to Control Glucose Dependent Insulin Secretion**
Peter Thorn, Ph.D., Professor, Chair of Molecular and Cellular Physiology, School of Medical Sciences, University of Sydney, Australia
- 09:20** **The Circadian Regulation of Muscle Repair**
Yao-Hua Song, Ph.D., Professor, Cyrus Tang Hematology Center, Soochow University, China
- 09:40** **Strategies to Improve Cardiac Maturation of hiPSC-derived Cardiomyocytes**
Fernanda Mesquita, Ph.D., Research Scientist, Regenerative Medicine Research, The Texas Heart Institute, Houston, TX

10:00-10:20 Coffee & Connect @ Pre-function Area

Cell and Gene Therapy

Chair: Qi Cai

Time: 10:20 - 11:40

- 10:20** **Skeletal Stem Cell Heterogeneity and Regulation in Bone Regeneration and Repair**
Dongsu Park, Ph.D., Assistant Professor, Department of Molecular and Human Genetics, Baylor College of Medicine, Houston, TX
- 10:40** **Incorporate Innovations into the Next Generation Autologous Cell Therapy**
Qi Cai, Ph.D., Director, Cell Biology, Research, Kite Pharma, Santa Monica, CA
- 11:00** **Three is a Magic Number: TAVO412 - A Novel Trispecific cMet x EGFR x VEGF Antibody for Difficult-to-treat Cancers**
Mark Chiu, Ph.D., CSO, Tavotek Biotherapeutics, Lower Gwynedd, PA
- 11:20** **SSTR2 as an Anatomical Imaging Marker and a Safety Switch to Monitor and Manage CAR T Cell Toxicity: Clinical and Preclinical Study**
Moonsoo M. Jin, Ph.D., Professor of Biomedical Engineering in Radiology & Surgery, Director, Molecular Imaging Innovations Institute (MI3), Department of Radiology, Weill Cornell Medicine, New York, NY

Physiology and Pharmacology

Chair: Peter Thorn

Time: 11:40 - 12:50

- 11:40** **Coincident Detection and Encoding of GPCR Signals by TRPC4 and GIRK Channels in Signaling Processing Neurons**
Jinbin Tian, Ph.D., Research Assistant Professor, Department of Integrative Biology & Pharmacology, MacGovern Medical School, The University of Texas Health Science Center at Houston, TX
- 12:00** **Machine Learning for Single-cell and Spatial Data**
Md. Abul Hassan Samee, Ph.D., Assistant Professor, Department of Integrative Physiology, Baylor College of Medicine, Houston, TX
- 12:20** **Photobiomodulation at 660 nm and Its Effect on Inflammation and Apoptosis in Wounded Diabetic Fibroblast Models**
Asma Shaikh-Kader*, Ph.D., Lecturer, Department of Human Anatomy and Physiology, Faculty of Health Sciences, Laser Research Center, University of Johannesburg, South Africa
- 12:35** **Ethnopharmacological Assessment of Medicinal Plant Extract in Ameliorating Cardiotoxicity and Nephrotoxicity in Experimental Animals**
Amirah Yusuf*, Department of Environmental & Interdisciplinary Sciences, Texas Southern University, Houston, TX

12:50-13:50 Lunch & In-person Departures @ Dallas & Houston

- 13:50** **Protein Phosphatase 2A, a Druggable Tumor Suppressor for Cancer Therapy**
Jukka Westermarck, Ph.D., Professor, Turku Bioscience Centre, University of Turku, Finland
- 14:10** **Targeting CFTR Post-translational Modifications for Cystic Fibrosis Therapy**
Christian Borgo, Ph.D., Assistant Professor, Department of Biomedical Sciences, University of Padova, Italy
- 14:30** **CFTR Correctors from Cystic Fibrosis to Muscular Dystrophy**
Dorianna Sandona, Ph.D., Associate Professor, Department of Biomedical Sciences, University of Padova, Italy
- 14:50** **Targeting the Gut Microbiota-endocannabinoid System Crosstalk to Treat Rare and Untreatable Skeletal Muscle Disorders**
Fabio A. Iannotti, Ph.D., Associate Professor, Institute of Biomolecular Chemistry, National Research Council, Italy
- 15:10** **Arbovirus Morphogenesis and Pathogenesis: What does Transmission Electron Microscopy Teach Us?**
Gabriela Cardoso Caldas*, Laboratory of Viral Morphology and Morphogenesis, Laboratory of Pathology - Oswaldo Cruz Institute, Brazil
- 15:25** **The Role of BRD7 in the Alternative Insulin Signaling Pathway**
Sang W. Park, Ph.D., Assistant Professor of Pediatrics, Harvard Medical School/Boston Children's Hospital, MA
- 15:45** **Nutrient Sensing and Hormonal Control of Metabolism**
Katrin J. Svensson, Ph.D., Assistant Professor, Department of Pathology, Stanford University, Palo Alto, CA

16:05-16:20 Break

- 16:20** **Extracellular Vesicles and Particles: Systemic Mediators of Metastasis**
Irina Matei, Ph.D., Weill Cornell Medicine, Department of Pediatrics, Drukker Institute for Children's Health and Meyer Cancer Center, New York, NY
- 16:40** **Quantitative Assays for the Detection of Antibody Transcytosis Across the Blood-brain Barrier *In Vitro***
Anna Jezierski, Ph.D., Research Officer, Human Health Therapeutics Research Centre, National Research Council of Canada
- 17:00** **Dynamic Regulation of Cap-independent Translation upon Pathogen Infection**
Jinlong Wang*, Ph.D., Postdoctoral Fellow, Department of Biology, Duke University, Durham, NC
- 17:15** **Armed Oncolytic Viruses Activate Tumor-reactive Cytotoxic T Cells by Converting Tumors to Artificial Antigen-presenting Cells *In Situ***
Hongkai Zhang, Ph.D., Professor, Department of Biochemistry and Molecular Biology, College of Life Science, Nankai University, China
- 17:35** **Deciphering Transcription Factor Binding Dynamics for an Endogenous Gene Locus in a Single Cell**
Heng Xu, Ph.D., Associate Professor, Institute of Natural Sciences & School of Physics and Astronomy, Shanghai Jiao Tong University, China
- 17:55** **High-density Lipoprotein Regulates Angiogenesis by Affecting Autophagy via MiRNA-181a-5p**
Jing-Song Ou, M.D., Ph.D., Professor and Director of Cardiovascular Diseases Institute, The First Affiliated Hospital, Sun Yat-sen University, China
- 18:15** **Lipotoxicity and Human Islets**
Jenny Gunton, Ph.D., Professor, Chair of Medicine, University of Sydney, Westmead Hospital, Australia
- 18:35** **Alternative Mammalian Strategies Leading Toward Gastrulation: Losing Polar Trophoblast or Gaining an Epiblast Cavity**
Peter Pfeiffer, Ph.D., Associate Professor, School of Biological Science, Victoria Univ. of Wellington, New Zealand
- 18:55** **Poster: Navitoclax Suppresses IL-3 Induced Human Umbilical Vein Endothelial Cells Migration and Angiogenesis Through PI3-AKT Pathway**
Nur Syahidah Nor Hisam, Postgraduate Candidate, The National University of Malaysia, Malaysia
- 19:05** **Poster: *In Silico* Study of Benzothiazole Guanidino Derivates as Possible Inhibitors of AChE, BACE1 Activity and Amyloid Peptide Aggregation**
Ana Paola Anaya Garcia, Laboratorio de Biofísica y biocatálisis, Instituto Politécnico Nacional, Mexico

End of Day 3

- 06:00** **Selection Pressure Behind the Pfhrp2/3 Deletions and Drug Resistance in Antimalarial: Are They Correlated**
Supriya Sharma, Ph.D., Research Associate, ICMR-National Institute of Malaria Research, India
- 06:20** **Using Model Organisms to Approach Heart Regeneration**
Jing-Wei Xiong, Ph.D., Professor, Institute of Molecular Medicine, College of Future Technology, Peking University, China
- 06:40** **Bioengineered Airway Grafts: Implications for Tracheal Transplantation**
Golnaz Karoubi, Ph.D., Assistant Professor, University of Toronto; Assistant Scientist, University Health Network, Toronto, ON
- 07:00** **PD-L1 Exerts Cell-intrinsic Functions in Thyroid Cells: New Mechanisms for Thyroiditis Triggered by Immune Checkpoint Inhibitors**
Mihaela Stefan-Lifshitz, Ph.D., Associate Professor, Division of Endocrinology & Diabetes, The Fleischer Institute for Diabetes and Metabolism, Albert Einstein College of Medicine, New York, NY
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Cell and Developmental Biology**Time: 07:20 - 08:55**

- 07:20** **Leaf Masquerade Mimicry in Oakleaf Butterflies**
Wei Zhang, Ph.D., Assistant Professor, School of Life Sciences, Peking University, China
- 07:40** **An Immunomodulatory Polypeptide Hydrogel for Osteochondral Defect Repair**
Jia-Kuo Yu, Ph.D., Professor, Department of Sports Medicine, Beijing Key Laboratory of Sports Injuries, Peking University Third Hospital, China
- 08:00** **Roadmap to Uterine Receptivity-regulation from the Estrogen and Progesterone Signal**
Shuangbo Kong, Ph.D., Associate Professor, Department of Obstetrics and Gynecology, School of Medicine, Xiamen University, China
- 08:20** **Bone Marrow-derived Nestin-GFP⁺ Progenitor Cells Persist in Immunologically Complete Recipients Immunized Against GFP**
Dmitriy Karpenko*, Laboratory of Epigenetic Regulation of Hematopoiesis, National Medical Research Center for Hematology, Russia
- 08:35** **Rad1-dependent and Independent Role of the Rad9-rad1-hus1 Complex in Drosophila Meiosis**
Uri Abdu, Ph.D., Associate Professor, Department of Life Sciences, Ben Gurion University of the Negev, Israel
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08:55-09:05 Break

Cell Signaling and Cancer Biology**Chair: Sebastian Oltean****Time: 09:05 - 12:10**

- 09:05** **Homophilic ATP1A1 Binding Induces Activin A Secretion to Promote EMT of Tumor Cells and Myofibroblast Activation**
Yi-Ing Chen*, D.V.M., Ph.D., Postdoctoral Fellow, Genomics Research Center, Academia Sinica, Taipei, Taiwan
- 09:20** **A Plant Immune Protein Enables Broad Antitumor Response by Rescuing MicroRNA Deficiency**
Peng Du, Ph.D., Assistant Professor, School of Life Sciences, Peking University, China
- 09:40** **Multi-targeting of Lung Cancer Signaling Networks**
Uwe Rix, Ph.D., Associate Member, Department of Drug Discovery, Moffitt Cancer Center, Tampa, FL
- 10:00** **Role of Anoctamin 7 in Prostate Cancer**
Johanna Schleutker, Ph.D., Professor of Medical Genetics, Dept. of Genomics, Turku University Hospital; Institute of Biomedicine and FICAN West Cancer Center, University of Turku, Finland
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- 10:20** **New Anti-angiogenic Treatments for Cancer by Modulation of VEGF-A Alternative Splicing**
Sebastian Oltean, MBBS, Ph.D., Associate Professor in Experimental Medicine and Therapeutics, Department of Clinical and Biomedical Sciences, University of Exeter Medical School, UK
- 10:40** **Genetic Interactions in Lymphoma Evolution**
Anthony Uren, Ph.D., School of Biomedical Sciences, Faculty of Health, Derriford Research Facility, University of Plymouth, UK
- 11:00** **Melanoma Differentiation Associated Gene-9/Syndecan Binding Protein (MDA-9/SDCBP) Promotes Hepatocellular Carcinoma (HCC)**
Devanand Sarkar, Ph.D., Professor, Human and Molecular Genetics, Virginia Commonwealth University, Richmond, VA
- 11:20** **Crizotinib Improves the Therapeutic Efficacy of PARP Inhibitors in Ovarian Cancer**
Janice Santiago-O'Farrill, Ph.D., Instructor, Department of Experimental Therapeutics, Division of Cancer Medicine, MD Anderson Cancer Center, Houston, TX
- 11:40** **Molecular and Biochemical Characterization of the Most Prevalent Missense Mutations Causing Slc13a5 Epilepsy**
Valeria Jaramillo-Martinez*, Department of Pharmacology and Neuroscience, Texas Tech University Health Sciences Center, Lubbock, TX
- 11:55** **Bromodomain Inhibition of EP300/CBP as a Therapeutic Strategy to Target MYC in Group 3 Medulloblastoma**
Noha Shendy*, Ph.D., Postdoctoral Research Associate, Department of Oncology, St. Jude Children's Research Hospital, Memphis, TN

Cellular and Molecular Neurobiology; Cell and Gene Therapy Physiology and Pharmacology

Chair: Yiyong (Ben) Liu

Time: 12:10 - 14:25

- 12:10** **The Longevity Response to Warm Temperature is Neurally Controlled via the Regulation of Collagen Genes**
Yiyong (Ben) Liu, Ph.D., Assistant Professor, Department of Translational Medicine & Physiology, Washington State University, Spokane, WA
- 12:30** **Neuronal GPCR NMUR-1 Regulates Distinct Immune Responses to Different Pathogens**
Jingru Sun, Ph.D., Associate Professor, Department of Translational Medicine and Physiology, Washington State University, Spokane, WA
- 12:50** **Huntington's Disease is a Matter of Recycling**
Xueyi Li, Ph.D., Assistant Professor, Department of Neurology, Massachusetts General Hospital and Harvard Medical School, Charlestown, MA
- 13:10** **mRNA Therapy to Alleviate Acute and Chronic Murine Liver Diseases**
Valerie Gouon-Evans, Ph.D., Associate Professor, Department of Medicine, Boston University School of Medicine and Boston Medical Center, Boston, MA
- 13:30** **Activation of Oncogenic Akt by CaMKK2**
Arthur M. Edelman, Ph.D., Associate Professor, Department of Pharmacology & Toxicology, Jacobs School of Medicine and Biomedical Sciences, Buffalo, NY
- 13:50** **QDs' Trafficking and Its Impact on Yeast Polarization and Actin Filament**
Kyoungtae Kim, Ph.D., Department of Biology, Missouri State University, Springfield, MO
- 14:10** **A Novel Signaling Pathway Delays Abscission to Prevent Chromatin Breakage**
Eleni Petsalaki*, Ph.D., Biology Department, University of Crete, Greece

14:25-14:40 Break

Poster Presentations

Time: 14:40 - 15:10

- 14.40** **Effect of Glycyrrhizic Acid with and without Low Level Laser Therapy on Squamous Cell Carcinoma and Oral Microbiome**
Amira Elsherbini, Associate Professor, Oral Biology Department, Faculty of Dentistry, Mansoura University, Egypt
- 14.50** **Mouse Embryonic Stem Cell-derived Motor Neurons are Susceptible to Ferroptosis**
Wan Seok Yang, Ph.D., Associate Professor, Department of Biological Sciences, St. John's University, Queens, NY
- 15.00** **Factors Affecting Outcomes of Bone Marrow Stem Cell Therapy for Acute Myocardial Infarction**
Evan Czulada, Georgetown University School of Medicine, Washington, D.C.

