



UNITED Scientific
Group
A non-profit organization



CEB-2020

Preliminary Program

International Conference on
Cell and Experimental Biology

Four Points by Sheraton Boston Newton, MA
(Old Name: Crowne Plaza Boston Newton Hotel)
December 9-11, 2020

About the Organizer

International Conference on Cell and Experimental Biology (CEB-2020) is organized by United Scientific Group (USG), a nonprofit organization with tax-exempt status under Section of Internal Revenue Code 501(c)(3) of the United States of America.

USG has a history of successfully organizing and managing, scientific meetings, symposiums and panel discussions ranging from 50 to 350 participants, throughout the United States of America and internationally.

USG is led by a group of senior scientists as the board of directors, who are committed to work together and contribute their best services to the scientific community by supporting scientific meeting organization and open access content publication.

Our vision is to create various scientific networking platforms by organizing conferences to bridge the gap between research and business for the translation of scientific discoveries and innovative thoughts into implementable solutions and products which benefit humankind.

We believe in creating a platform where knowledge exchange and growth of scientific wisdom can take place by connecting and sharing valuable inputs and opinions of practitioners and academicians from across the globe. This will help address the rising scientific queries and provide solutions for a smarter and more advanced future.

Through the years, USG Conferences has hosted Nobel Laureates, National Academy Members, industry and academic stalwarts, innovators, and entrepreneurs, who interact with the audience through a talk and during the networking sessions.

Reasons to Attend CEB-2020



Learn

CEB-2020 includes the most influential pioneers, speakers, keynotes, informative panels and some of the best networking you'll find in the field of cell and experimental biology. The conference is unique in its approach of encouraging a dialogue between speakers and delegates through its well-planned agenda with the series of talks, poster presentations, panel discussions and networking events that will keep participants engaged in learning.



Discover

The conference aims to provide timely, evidence-based information that helps Physiologists, Cellular Biologists, Anatomists, Biotechnologists, Pathologists and other allied experts from academic institutions, government agencies, societies, non-profit organizations and the industry.



Connect

CEB-2020 connects life sciences and biomedical researchers from all over the globe to network and share cutting-edge research that leads to new breakthroughs and career advancement. This meeting is focused to deliver top notch scientific lectures in the fields of anatomy, biochemistry, cell and molecular biology, investigative pathology, pharmacology, and physiology.

CEB-2020 Scientific Topics

The conference is focused to deliver top notch scientific lectures in the fields biochemistry, cell and molecular biology, investigative pathology, pharmacology, and physiology. The subject areas may include, but are not limited to the following domains:

- Biochemistry and Molecular Biology
- Cell and Developmental Biology
- Investigative Pathology
- Pharmacology and Toxicology
- Epithelial and Mucosal Pathobiology
- Cell and Tissue Injury
- Synthetic Biology
- Experimental Biology and Disease Physiology
- Animal Physiology

Organizing Committee

Konstantin Khrapko, Ph.D.

Department of Biology, Northeastern University, Boston, MA

Ergun Sahin, Ph.D.

Huffington Center on Aging, Department of Physiology and Biophysics, Baylor College of Medicine, Houston, TX

Torres M I, Ph.D.

Department of Experimental Biology, University of Jaén, Jaén, Spain

Ning Dai, Ph.D.

Department of Medicine Endocrinology, Rutgers Robert Wood Johnson Medical School, Piscataway, NJ

Diana Rigueur, Ph.D.

Center for Craniofacial Molecular Biology, University of Southern California, Los Angeles, CA

Conference at a Glance

Wednesday 9 December

08:00–08:20
Registrations

08:20–08:30
Introduction to CEB-2020

08:30–10:30
Keynote Session

10:30–11:00
Coffee Break

11:00–13:00
Keynote Session

13:00–14:00
Lunch Break & Networking

14:00–17:20
Breakout - 1
• **Biochemistry and Molecular Biology**

14:00–17:20
Breakout - 2
• **Synthetic Biology**
• **Cell and Tissue Injury, Animal Physiology, Investigative Pathology**

17:20–19:00
Poster Presentations & Reception

Thursday 10 December

08:30–10:00
Keynote Session

10:00–10:30
Coffee Break

10:30–18:00
Breakout - 1
• **Biochemistry and Molecular Biology**

10:30–18:00
Breakout - 2
• **Cell and Developmental Biology**

13:10–14:00
Lunch Break & Networking

10:30–13:10
Breakout - 3
• **Biochemistry and Molecular Biology**

10:30–13:10
Breakout - 4
• **Cell and Developmental Biology**

14:00–18:00
Breakout - 5
• **Experimental Biology and Disease Physiology**

16:00–16:20
Coffee Break

Friday 11 December

09:00–17:00
Channel - 1
• **Biochemistry and Molecular Biology**

09:00–17:00
Channel - 2
• **Cell and Developmental Biology**

10:30–10:50
Coffee Break

09:00–17:00
Channel - 3
• **Experimental Biology and Disease Physiology**

13:00–14:00
Lunch Break & Networking

16:00–16:20
Coffee Break

Virtual Presentations

Use of DREADD Technology to Identify Novel Targets for Anti-Diabetic Drugs

Jürgen Wess, Chief, Molecular Signaling Section, Lab. of Bioorganic Chemistry, National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, Bethesda, MD

Tumor Exosomes: From Mediators of Systemic Disease to Biomarkers of Metastatic Spread

Irina Matei, Weill Cornell Medicine, Children's Cancer and Blood Foundation, Departments of Pediatrics, Cell & Developmental Biology, Drukker Institute for Children's Health and Meyer Cancer Center, New York, NY

Novel Mechanism of Manganese Homeostasis Regulation

Ningning Zhao, Principal Investigator, Department of Nutritional Sciences, The University of Arizona, Tucson, AZ

A Human *In Vitro* Model for Type-1 Diabetes Unravels Gene Editing Targets for Immune Protection of Stem Cell-Derived Beta Cells

Elad Sintov, Department of Stem Cell and Regenerative Biology, Harvard Stem Cell Institute, Harvard University, Cambridge, MA

How Amoebae Locate and Eat Bacteria

Miao Pan, Laboratory of Immunogenetics, National Institute of Allergy and Infectious Disease, NIH, Rockville, MD

Unraveling the Mechanisms Controlling PI3K/AKT-driven Senescence in Cancer

Keefe Chan, Sir Peter MacCallum Department of Oncology and Department of Biochemistry and Molecular Biology, University of Melbourne, Cancer Research Division, Peter MacCallum Cancer Centre, Australia

Transcriptional Variability and Cell Fate Transitions in Leukemia

Cristina Pina, Lecturer in Biomedical Sciences, Brunel University London, College of Health and Life Sciences - Life Sciences, Division of Biosciences, UK

Unraveling the Molecular Bases of Human Congenital Disorders of Glycosylation using Fission Yeast as Experimental Model

Cecilia D'Alessio, Fundación Instituto Leloir-IIBBA CONICET, Argentina

In Vivo Functional Analysis of Non-Conserved Human Long Non-coding RNA Metabolic Regulators

Haiming Cao, Investigator, Cardiovascular Branch, National Heart, Lung and Blood Institute, National Institutes of Health, Bethesda, MD

Palmitoylation- and Dimerization-dependent Raftophilicity of Rhodopsin Brings about Spatiotemporal Dynamic Heterogeneity in Retinal Disks

Fumio Hayashi, Emeritus Professor in Department of Biology, Graduate School of Science, Kobe University, Japan

Functional Genomics of Cystic Fibrosis: Illuminating Pathways and Therapies

Margarida D. Amaral, Professor, Director of BioISI - Biosystems & Integrative Sciences Institute Faculty of Sciences, University of Lisboa, Portugal

Gene Interactions in *Drosophila* without Contacts and Chemical Intermediaries

Nina B. Fedorova, Institute of Cytology and Genetics, Siberian Department of Russian Academy of Sciences, Russian Federation

Excess Dietary Carbohydrate Affects Mitochondrial Integrity in Brown Adipose Tissue

Ning Wu, Van Andel Research Institute, Grand Rapids, MI

How Repeats can Influence the Life of a Cell: the Case of FA-SAT!

Raquel Maria Garcia Dos Santos Chaves, Laboratory of Cytogenomics and Animal Genomics (CAG), Department of Genetics and Biotechnology (DGB), University of Trás-os-Montes e Alto Douro (UTAD), Vila Real, Portugal

Disassembly of Cytoskeletal Networks in Atrophiying Muscles: Step-by-Step

Shenhav Cohen, Faculty of Biology, Technion Institute of Technology, Haifa, Israel

Lipid Desaturation Regulates Self-renewal and Differentiation in Pluripotent and Trophoblast Stem Cells

Arieh Moussaieff, Assistant Professor, Head, Laboratory of Cell Metabolism, Institute for Drug Research, Faculty of Medicine, Hebrew University of Jerusalem, Israel

Vascular Colonization as a Trigger for Meningococcal Purpura fulminans

Guillaume Duménil, Institut Pasteur, Unité "Pathogenèse des infections vasculaires", France

The Molecular Mechanisms of FUNDC1 Mediated Mitophagy

Guo Chen, State Key Laboratory of Medicinal Chemical Biology, Tianjin Key Laboratory of Protein Science, College of Life Sciences, Nankai University, China

Hypoxia Produces Pro-arrhythmic Late Sodium Current in Cardiac Myocytes by SUMOylation of Nav1.5 Channels

Leigh D. Plant, Assistant Professor, Department of Pharmaceutical Sciences, Northeastern University, Boston, MA

Autophagy in the Physiology of Neuronal Synapses

Zheng Li, Section on Synapse Development Plasticity, National Institute of Mental Health, National Institute of Health, Bethesda, MD, USA

Stress Hormone CRH as a Regulator of Neurogenesis in the Embryonic and Adult Brain

Yassemi Koutmani, Research Scientist, Biomedical Research Foundation, Academy of Athens (BRFAA), Greece

Regulation of Synapse Development and Plasticity by microRNAs in Drosophila

David Van Vactor, Professor of Cell Biology, Faculty Director, Curriculum Fellows Program Director, Biological and Biomedical Sciences (BBS) Graduate Program, Harvard Medical School, Blavatnik Institute of Cell Biology, Boston, MA

Kinesin-1 Regulates Antigen Cross-presentation through the Scission of Tubulations from Early Endosomes in Dendritic Cells

Gaël Ménasché, Laboratory of Molecular Basis of Altered Immune Homeostasis, INSERM U1163, Imagine Institute, France

A FAK/HDAC5 Signaling Network Controls Osteocyte Mechanotransduction

Marc Wein, Assistant Professor of Medicine, Harvard Medical School, Associate Member, Broad Institute of MIT and Harvard, Massachusetts General Hospital, Boston, MA

Inflammatory Mechanisms Underlying Brain Dysfunction in Neurodevelopmental Disorders

Juan Mauricio Garre, Department of Neurology, Columbia University, New York, NY

Inhibition of RNA Polymerase I Transcription Activates the DNA Damage Response and Demonstrates Therapeutic Efficacy in Ovarian Cancer

Elaine Sanij, Victorian Cancer Agency Mid-Career Research Fellow, Senior Research Fellow, Cancer Signalling Laboratory, Cancer Research Division, Peter MacCallum Cancer Centre, Victorian Comprehensive Cancer Centre, Melbourne, Australia

Targeting the Water Channel Protein, Aquaporin-4, to Prevent Edema after Spinal Cord Injury

Zubair Ahmed, Senior Lecturer in Neuroscience | Lead for Neuroscience and Ophthalmology, University of Birmingham, UK

Human Virus Transcriptional Regulators

Juan Fuxman Bass, Assistant Professor, Boston University, Biology Department, Boston, MA

Uncovering the Role of Non-canonical MicroRNA Processing During Erythropoiesis

Daniel Cifuentes, Assistant Professor of Biochemistry, Boston University School of Medicine, Boston, MA

Pro-survival Bcl-2 Proteins Suppress Beclin 1/Atg6-mediated Lethal Autophagy in Polyploid Cells

Jing Zhang, J. Michael Bishop Institute of Cancer Research, China

Spatiotemporal Organization of the E. coli Transcriptome: Insights into RNA-mediated Regulation

Orna Amster-Choder, Professor, Incumbent of Dr. Jacob Grunbaum Chair in Medical Sciences, Department of Microbiology and Molecular Genetics, The Hebrew University Faculty of Medicine, Israel

Rescuing Chromatin Bridges from Breaking in Cytokinesis

George Zachos, Associate Professor of Cell Biology, Group Leader, Department of Biology, University of Crete, Greece

Protein Oligomerization Monitored Using Photoswitching Anisotropy Homo-FRET

George H Patterson, Section on Biophotonics, National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health, Bethesda, MD

The Impact of Magnesium(II) Ions and Sugar Puckering on the Formation of Tertiary Contacts of Nucleic Acids - Fundamentals in (self)splicing and Potentially Reverse Transcription

Richard Borner, Laserinstitut Hochschule Mittweida (LHM), University of Applied Sciences Mittweida, Germany

Use of a Tethered Ligand Signaling Mechanism by Polycystin-1

Robin L. Maser, Associate Professor, Department of Clinical Laboratory Sciences, Department of Biochemistry and Molecular Biology, and The Jared Grantham Kidney Institute at the University of Kansas Medical Center, Kansas City, KS

Diurnal Variation Induces Differences in Immune Response of Microglia Compared with Macrophages

Ricardo J. Martinez Tapia, Laboratorio de Neuroendocrinología, Departamento de Fisiología, Facultad de Medicina, UNAM, Mexico

Tells of the Co-operative Actions of TDP-43 and FMRP in Spine Transport/Translation of Specific mRNAs

Pritha Majumder, Institute of Molecular Biology, Academia Sinica, Taiwan

A TRPA1 Inhibitor Suppresses Neurogenic Inflammation and Smooth Muscle Contraction for the Treatment of Asthma

Lorena Riol-Blanco, Department of Immunology, Genentech, Inc., South San Francisco, CA

Developing Dual-Targeted Nanoparticles to Circumvent the Resistance to Src Inhibition in Head and Neck Cancer

Yong Teng, Department of Biochemistry & Molecular Biology, MCG, Georgia Cancer Center, Augusta University, GA

HoxB Gene Cluster Empowers Stem Cell Properties in Hematemesis and Leukemogenesis

Linheng Li, Professor, Department of Pathology & Laboratory Medicine, The University of Kansas School of Medicine, Kansas City, KS

The Characterization of Mammalian Stringent Response in Cancer Cells

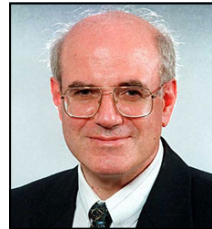
Jen-Tsan Ashley Chi, Department of Molecular Genetics and Microbiology, Duke Center for Genomic and Computational Biology, Duke Medical School, Durham, NC

Keynote Speakers



Gerald W. Hart, Ph.D.
University of Georgia
Athens, GA

Title: Nutrient Regulation of Signaling and Gene Expression by O-GlcNAc



Israel Hanukoglu, Ph.D.
Professor of Biochemistry and Molecular Biology, Laboratory of Cell Biology, Ariel University, Israel

Title: Using Cytoskeletal Markers for Identifying and Classifying Epithelial Cells



Peter N. Devreotes, Ph.D.
Johns Hopkins University School of Medicine, Baltimore, MD

Title: Excitable Networks in Directed Cell Migration



Sheue-yann Cheng, Ph.D.
Laboratory of Molecular Biology NCI, NIH, Bethesda, MD

Title: The Suppressor Function of TR β on Cancer Stem-like Cells



John G. Flanagan, Ph.D.
Harvard Medical School, Longwood Avenue, Boston, MA

Title: Cell Surface Receptors – Direct Interactions with the Machinery for Translation and Transcription



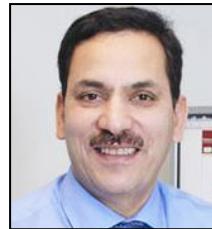
Yihong Ye, Ph.D.
Laboratory of Molecular Biology NIDDK, NIH, Bethesda, MD

Title: Littering by Cells: Roles of Unconventional Protein Secretion in Neurodegenerative Diseases



Sylvie Breton, Ph.D.
Harvard Medical School, Boston, MA

Title: Genomic and Proteomic Profiling of Specific Cell Types and Cell-Cell Crosstalk in the Epididymis and Kidney



Khalid Shah, MS, Ph.D.
Director, Center for Stem Cell Therapeutics and Imaging, Harvard Medical School, Boston, MA

Title: Next Generation of Gene Edited and Engineered Cellular Therapies for Cancer

Coffee Break

Lunch Break

Technical Session 1

Breakout 1

Biochemistry and Molecular Biology

Chair:

TBA

Vijay K. Kuchroo, Harvard Medical School and Brigham and Women's Hospital, Boston, MA

CoCoPUTs and Disease Prediction: In Silico Tools for the 21st Century

Chava Kimchi-Sarfaty, OTAT Deputy Associate Director for Research, Division of Plasma Protein Therapeutics, FDA | CBER | OTAT, Silver Spring, MD

Mechanisms and Proteins that Direct Heme Allocation in Mammalian Cells

Dennis Stuehr, Lerner Research Institute, Cleveland, OH

Activation of the EGF Receptor by Ligand Binding and Oncogenic Mutations: the Rotation Model

Ichiro Maruyama, Professor, Okinawa Institute of Science and Technology Graduate University, Japan

The Unfolded Protein Response (UPR) Activator ATF6 Responds to Proteotoxic and Lipotoxic Stress by Distinct Mechanisms

Maho Niwa, Professor, Division of Biological Sciences, Section of Molecular Biology, UCSD, La Jolla, CA

Coffee Break

Cell-type-specific Genomics Reveals Histone Modification Dynamics in Mouse Meiosis

Gabriel Lam, Genetics and Biochemistry Branch, National Institute of Diabetes, Digestive and Kidney Diseases (NIDDK), National Institutes of Health (NIH), Bethesda, MD

Structural and Biochemical Studies on Trimethoprim Resistant DHFR from Pathogenic Bacteria

Dennis L. Wright, Professor of Medicinal Chemistry, Department of Pharmaceutical Sciences, University of Connecticut, Groton, CT

Regulation of Pain and Opioid Sensitivity by the Skin - the Role of Hair Color and UV Light

Lajos V. Kemény, Department of Dermatology, Cutaneous Biology Research Center, Massachusetts General Hospital, Harvard Medical School, Boston, MA

Technical Session 2

Breakout 2

Synthetic Biology

Chair:

Weaving Biological Snapshots into Stories Through Computational Modeling

Eberhard O. Voit, Professor and David D. Flanagan Chair in Biological Systems, Georgia Research Alliance Eminent Scholar, The Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory University Atlanta, GA

A Modular PROTAC Design for Drug Therapy Using Single Amino Acid-based Degradation Signal

Hai Rao, Professor, Department of Molecular Medicine/IBT, The University of Texas Health , San Antonio, TX

Targeting Oncogenic Signaling Networks Through Drug Polypharmacology

Uwe Rix, Associate Member, Department of Drug Discovery, Moffitt Cancer Center, Tampa, FL

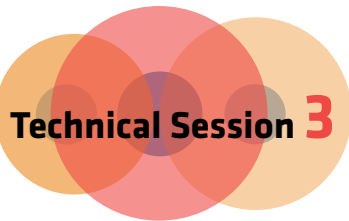
DolphinNext: A Distributed Data Processing Platform for High Throughput Genomics

Alper Kucukural, Assistant Professor, Program in Molecular Medicine, Co-director Bioinformatics Core, University of Massachusetts Medical School, Worcester, MA

Adapt as a Single-domain Bispecific Scaffold Capable of Albumin-associated Half-life Extension for Therapeutic Applications

Emma von Witting, School of Engineering Sciences in Chemistry, Biotechnology and Health, KTH Royal Institute of Technology, Stockholm, Sweden

Coffee Break



Technical Session 3

Cell and Tissue Injury, Animal Physiology, Investigative Pathology

Chair:

Fractal Analysis of the Airway- and the Vascular Systems of the Human Lung Based on Measurements Made on Latex Rubber Cast Preparations

John Maina, Department of Zoology, University of Johannesburg, Johannesburg, South Africa

Single Cell Wound Healing and Restructuring upon Plasma Membrane Injury

Jesper Nylandsted, Danish Cancer Society Research Center, Strandboulevard 49, Copenhagen, Denmark

PD1/PDL1 Pathway Contributes to the Pathogenesis of Celiac Disease

Torres Lopez MI, Professor, Department of Experimental Biology, University of Jaén, Jaén, Spain

Posters Session

Reception



Poster Presentations

CEB20-P1

Generation and Characterization of Isoform-Specific p63^γ^{-/-} Mice
Filipa Pinto, Boston University Henry M. Goldman School of Dental Medicine, Boston, MA

CEB20-P2

Effect of Gut Dysbiosis Induced by Amoxicillin on Lung Inflammatory Response against Mycobacterium bovis - Bacillus Calmette-Guérin (BCG)
Anamaria Almeida Costa Tavares, Universidade José do Rosário Vellano, Brazil

CEB20-P3

The Prevalence of Absence of Palmaris Longus – A Study in a Brazilian Population
Marcelo Rodrigo Tavares, Universidade José do Rosário Vellano, Brazil

CEB20-P4

Bone Marrow Cells Recover Skin Homeostasis Impaired by X-irradiation
Junko Okano, Department of Plastic and Reconstructive Surgery, Shiga University of Medical Science, Japan

CEB20-P5

Diabetic Hyperphagia is Caused by a Brain Homing Failure of Hematopoietic Cells
Hideto Kojima, Department of Stem Cell Biology and Regenerative Medicine, Shiga University of Medical Science, Japan

CEB20-P6

A Fraction of Hematopoietic Stem Cells Unphysiologically Fuse with Neurons, Causing Diabetic Neuropathy
Miwako Katagi, Shiga University of Medical Science, Japan

CEB20-P7

The Ubiquitin Ligase AIP4 Functions in Clathrin-Mediated Endocytosis of EGF Receptor
Annie Angers, Associate Professor, Faculty of Arts and Sciences - Department of Biological Sciences, University of Montreal, Canada
Riham Ayoubi, Department of Biological Sciences, University of Montreal, Canada

CEB20-P8

Angiogenic Factors Serve as Regulators and Predictors of Immune Reconstitution After Umbilical Cord Blood Transplantation in Adults
Anthos Christofides, Department of Medicine, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA

CEB20-P9

Angiopoietin 2-induced, Tie2-independent, Lymphatic Endothelial Cell Migration is Mediated by Formins
Racheal Akwii, Texas Tech University Health Sciences Center, TX

CEB20-P10

Structure-Based Virtual Screening of Essential Mycobacterium Tuberculosis Enzymes AspS and KatG for Inhibiting Ligand Discovery
Andrew Collins, University of Central Florida College of Medicine, Orlando, FL



Yun-Bo Shi, Ph.D.

Section on Molecular Morphogenesis,
NICHD/DIR, Bethesda, MD

Title: Epigenetic Modifications in the Regulation of Developmental Timing and Rate by Thyroid Hormone Receptor



Cristina M. Cardoso, Ph.D.

Professor of Cell Biology and Epigenetics,
Department of Biology, Technical
University Darmstadt, Germany

Title: Elementary Units of DNA Replication and Repair: A Mirror of Chromatin Higher Order Structure?



Avri Ben-Ze'ev, Ph.D.

Weizmann Institute of Science,
Rehovot, Israel

Title: Adhesion-Mediated Signaling in Cancer Progression

Omega-3 Fatty Acids Activate Ciliary FFAR4/GPR120 to Trigger cAMP-dependent Differentiation of Preadipocytes

Peter K. Jackson, Professor, Stanford University School of Medicine, Stanford, CA

Omega-3 Fatty Acids Activate Ciliary FFAR4/GPR120 to Trigger cAMP-dependent Differentiation of Preadipocytes

Peter K. Jackson, Professor, Stanford University School of Medicine, Stanford, CA

Chemoptogenetic-Mediated Singlet Oxygen Damage to Mitochondria Causes Telomere Dysfunction

Bennett Van Houten, Richard M. Cyert Professor of Molecular Oncology, Department of Pharmacology and Chemical Biology, Co-Leader, Genome Stability Program, UPMC Hillman Cancer Center, Associate Director for Basic Research, Aging Institute, University of Pittsburgh, Pittsburgh, PA

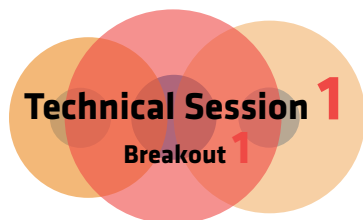
The apoM/S1P Axis and Its Effects on Triglyceride Metabolism

Christina Christoffersen, Associated Professor, Department of Biomedical Sciences, University of Copenhagen, Denmark

Control of Membrane Trafficking Decisions by Ubiquitin

Robert C. Piper, Roy J. Carver Professor, Department of Molecular Physiology and Biophysics, Associate Dean for Research, Carver College of Medicine, University of Iowa, Iowa City, IA

Coffee Break



A Leptin Receptor Antagonist Uncouples Leptin's Metabolic and Immune Functions

Joris Wauman, Staff Scientist, VIB Center for Medical Biotechnology, UGent Department of Biomolecular Medicine, Belgium

Easy and Efficient Delivery of Cells to the Bone Marrow in Mice

Takahiro Kuchimaru, Assistant Professor, Center for Molecular Medicine, Jichi Medical University, Japan

Lunch Break

Biochemistry and Molecular Biology

Chair:

Enhancing Chemotherapy with Translesion Synthesis Inhibitors

Pei Zhou, Department of Biochemistry, Duke University Medical Center, Durham, NC

Arrestin-3-dependent JNK Activation: Functions and Mechanisms

Eugenia V. Gurevich, Associate Professor of Pharmacology, Vanderbilt University Medical Center, Nashville, TN

Highly Selective Cleavage of TH2-promoting Cytokines by the Human Mast Cell Chymase and the Trypsase, Indicating a Potent Negative Feedback Loop on TH2 Immunity

Lars Hellman, Professor, Uppsala University, Department of Cell and Molecular Biology, Sweden

RhoA and MAPK Pathway in Toxin-induced Production of TNF- α During *Clostridium difficile* Infection

Xingmin Sun, Department of Molecular Medicine, Morsani College of Medicine, University of South Florida, Tampa, FL

Developing Targeted Therapies for Malignant Brain Tumors: Non-coding RNA and Gene Editing

Anna M. Krichevsky, Associate Professor of Neurology, Brigham and Women's Hospital, Dana-Farber/Harvard Cancer Center, HMS Initiative for RNA Medicine, Harvard Medical School, Boston, MA

Transcriptional Regulation of the Proteasome: Implications for Cancer Therapy

Senthil Radhakrishnan, Assistant Professor, Virginia Commonwealth University, Richmond, VA

Aptamer-based Imaging of Polyisoprenoids Applied to the Malaria Parasite

Maria Belen Cassera, Associate Professor, Biochemistry & Molecular Biology Department, Center for Tropical and Emerging Global Diseases (CTEGD), University of Georgia, Athens, GA

Coffee Break

Adaptor Protein Regulates Adipocyte Differentiation by Modulating a PDGFR α -Nrf2-PDGF-A Autocrine Loop

Nida Haider, Division of Experimental Medicine, McGill University Health Centre Research Institute, McGill University, Montreal, Quebec, Canada

Design, Bioproduction, and Tumor Delivery of Extracellular Vesicles Carrying Heterodimeric Interleukin-15

Dionysios C. Watson, Medical Oncology fellow, University Hospitals, Case Western Reserve University, Cleveland, OH

Deciphering the Metabolic Outliers in Genetic Diseases

Min Ni, Assistant Professor, Genetic and Metabolic Disease Program, Children's Research Institute, UT Southwestern Medical Center, Dallas, TX

Regulation of Diacylglycerol Kinases by Membrane Shape

José Carlos Bozelli, Jr., Department of Biochemistry and Biomedical Sciences, McMaster University, Health Sciences Centre, Hamilton, Ontario L8S 4K1 Canada
Children's Research Institute, UT Southwestern Medical Center, Dallas, TX

The Parameters of Targeting Activator System and Application in *Drosophila*

Jian-Quan Ni, Gene Regulatory Lab, School of Medicine, Tsinghua University, Beijing, China



Technical Session 4

Breakout 2

Cell and Developmental Biology

Chair:

TBC1d24-ephrinB2 Interaction Regulates Contact Inhibition of Locomotion in Neural Crest Cell Migration

Jaeho Yoon, Center for Cancer Research, National Cancer Institute, NIH, Frederick, MD

Angiogenesis Revisited: Role and (Therapeutic) Implications of Endothelial Metabolism

Peter Carmeliet, Laboratory of Angiogenesis & Vascular Metabolism, VIB Center for Cancer Biology (CCB), VIB, KULeuven, Department of Oncology, Campus Gasthuisberg, Belgium

The Role of 3D Cancer Cell Growth in Organelle Morphology and Function

Margarida Barroso, Professor, Department of Molecular and Cellular Physiology, Albany Medical College, Albany, NY

Physical Basis of Receptor Tyrosine Kinase Signaling

Kalina Hristova, Professor of Materials Science and Engineering and Biomedical Engineering, Institute for NanoBioTechnology, Johns Hopkins University, Baltimore, MD

The Structures and Functions of the Cannabinoid Receptors

Alexandros Makriyannis, Northeastern University, Boston, MA

How Vesicles Find their Target

Peter Novick, Professor of Cellular and Molecular Medicine, George Palade Endowed Chair, University of California San Diego, La Jolla, CA

Expected Ratio of Types of Founders' mtDNA to Surrounding Populations' mtDNA

Joseph Livni, Independent Researcher, Woburn, MA

Identification of Novel Post-translational Mechanisms in Autophagy

Robin Ketteler, MRC Laboratory for Molecular Cell Biology, University College London, UK

Lunch Break

Cellular Delivery of α -Lipoic Acid by the Na⁺/Multivitamin Transporter

Matthias Quick, Associate Professor of Neurobiology, Department of Psychiatry and Center for Molecular Recognition, CUMC, New York, NY

RNA Binding Protein SRSF3 is Required for Cardiac Integrity Preservation

Mannix Auger-Messier, Department of Medicine, Université de Sherbrooke, Canada

Principles of Neural Stem Cell Lineage Progression

Simon Hippenmeyer, Professor, Institute of Science and Technology Austria, Austria

Ciliogenesis Membrane Organization Requirements Revealed by Super Resolution Fluorescence Microscopy and 3-D Volume Electron Microscopy

Christopher J. Westlake, Laboratory of Cell and Developmental Signaling, NCI-Frederick, Frederick, MD Massachusetts General Hospital/Harvard Medical School, Boston, MA

An IKK α -nucleophosmin Axis Utilizes Inflammatory Signaling to Promote Genome Integrity

Yinling Hu, Senior Investigator, Cancer and Inflammation Program, Head, Inflammation and Tumorigenesis Section, National Cancer Institute, Frederick, MD

Accelerated Differentiation for Human Pluripotent Stem Cells

Victor Li, Co-founder and CEO at StemCellerant, LLC, Boston, MA

Unlocking the Potential of Stem Cells to Model Airway Diseases

Hongmei Mou, The Mucosal Immunology & Biology Research Center, Massachusetts General Hospital/Harvard Medical School, Boston, MA

Cell Membrane Transmits High-Level Integrin Tensions for Rear De-Adhesion During Rapid Cell Migration

Xuefeng Wang, Assistant Professor, Department of Physics & Astronomy, Iowa State University, Ames, IA

The Function of RNA Binding Protein IGF2BPs/IMPs

Ning Dai, Assistant Professor of Department of Medicine Endocrinology, Rutgers Robert Wood Johnson Medical School, The State University of New Jersey, NJ

Ultrastructural Analysis of Actin Cortex Reorganization Underlying Bleb-based Motility of Cancer Cells

Antonina Alexandrova, Laboratory of Mechanisms of Carcinogenesis, Institute of Carcinogenesis, N.N. Blokhin Russian Cancer Research Center, Moscow, Russia

Inflammation Induces Mesothelial Cells/Macrophage Transition in Rat Mesenteric Mesothelial Cells

Anna L. Kiss, Department of Anatomy, Histology and Embryology, Semmelweis University, Hungary

Lunch Break



Technical Session 1

Breakout 3

Biochemistry and Molecular Biology

Chair:

Structure-forming CAG Repeats Interfere with Gap Repair to Cause Genome Instability

Erica Polleys, Department of Biology, Tufts University, Medford, MA

Polyunsaturated Fatty Acid Desaturation is a Mechanism for Glycolytic NAD⁺ Recycling

Eugene P. Rhee, Nephrology Division and Endocrine Unit, Massachusetts General Hospital, Boston, MA

Non-proteolytic Ubiquitination in the Regulation of Mitochondria-Nuclear Communication

Valentina Perissi, Associate Professor of Biochemistry, Boston University School of Medicine, Co-Director Adipose Biology and Nutrition Metabolism Core, Boston Nutrition Obesity Center, Boston, MA

Understanding the Insulin Signaling Pathway in Obesity

Sang W. Park, Assistant Professor, Harvard Medical School, Division of Endocrinology, Boston Children's Hospital, Boston, MA

RNA Stabilization via Thio-phosphate and Gene Regulation

Elizabeth Frayne, University of Phoenix, Phoenix, AZ; Frayne Consultants, La Mirada, CA

Coffee Break

HCF-1 Regulates De Novo Lipogenesis through a Nutrient-Sensitive Complex with ChREBP

Dong Wook Choi, Department of Cancer Biology, Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA

RNA-binding Protein HuR Restrains Inflammatory Cytokine Production in Innate Cells

Shiguang Yu, Assistant Professor, Department of Neurology, Thomas Jefferson University, Philadelphia, PA

CaMKK2 – A Master Kinase with Roles in AMPK and Akt Signaling in Cancer

Arthur M. Edelman, Associate Professor, Department of Pharmacology & Toxicology, Jacobs School of Medicine and Biomedical Sciences, Buffalo, NY

Exploring the Role of Type 2 Node Proteins in NDR-family Kinase Localization during Fission Yeast Cytokinesis

John W. Goss, Department of Biological Sciences, Wellesley College, 106 Central Street, Wellesley, MA

S6K1 and S6K2 Networking with the AXL Tyrosine Kinase in PTEN-deficient Glioblastoma

Pranjal Sarma, Department of Cancer Biology, VONTZ Center for Molecular Studies, University of Cincinnati, Cincinnati, OH



Technical Session 5

Experimental Biology and Disease Physiology

Chair:

Epigenetic Switch, Carcinogenesis and Combination Therapy

Sibaji Sarkar, Mass Bay Community College, Wellesley, MA

A Novel Rapid Ablation of Cells Expressing Human CD59 in Animals by Intermedilysin

Xuebin Qin, Professor, Division of Comparable Pathology, Tulane National Primate Research Center, and Department of Immunology and Microbiology, Tulane University School of Medicine, New Orleans, LA

An HPV-Independent Mechanism of Cervical Carcinogenesis

Cheng Wang, Associate Professor of Obstetrics, Gynecology, and Reproductive Biology, Harvard Medical School, Boston, MA

Regulation of Macrophages by AEG-1: Implications in Cancer

Devanand Sarkar, Professor, Department of Human and Molecular Genetics, Associate Director of Education and Training, Massey Cancer Center, Virginia Commonwealth University, Richmond, VA

Smurf1-mediated Non-proteolytic Ubiquitination Protects the Liver from Steatosis

Ying E. Zhang, Senior Investigator, Laboratory of Cellular & Molecular Biology, National Cancer Institute, NIH, Bethesda, MD

Lunch Break

Mitochondrial Immuno-metabolites Promote Bacterial Airway Infection

Sebastian Riquelme, Department of Pediatrics, Division of Infectious Diseases, Columbia University Irving Medical Center, New York, NY

The Nuclear Translocation of MAPKs as a Therapeutic Target for Cancer and Inflammation

Rony Seger, Department of Biological Regulation, Weizmann Institute of Science, Rehovot, Israel

STING-dependent Type-1 Interferon Restrains Schistosome Immunopathology Via Down-Regulation of the CD209A Lectin Receptor

Parisa Kalantari, Research Assistant Professor, Department of Immunology, Tufts University School of Medicine, Boston, MA

A Gene Expression Network Analysis Identifies Complement 1 q Like 3 Secreted Protein that Inhibits Insulin Secretion from Pancreatic Beta Cells

Sushant Bhatnagar, Assistant Professor of Medicine, Division of Endocrinology, Diabetes, and Metabolism, University of Alabama at Birmingham, AL

Human iPSC Cell-derived Neurons: Disease Modeling and Therapeutic Development

Mingyao Ying, Department of Neurology, Hugo W. Moser Research Institute at Kennedy Krieger, JHU School of Medicine, Baltimore, MD

HIF1 α /PFKFB3 Pathway is a Novel Mechanism to Account for Slow β -cell Loss and β -cell Dysfunction in Diabetes

Slavica Tudzarova-Trajkovska, Hillblom Islet Research Center, University of California Los Angeles, CA

Diabetic Nephropathy is Partially a Bone Marrow Disorder

Takahiko Nakagawa, Rakuwakai Otowa Hospital, Japan; Shiga University of Medical Science, Japan

The Role of RNA/DNA Hybrids in Regulating Radiation Resistance in Pediatric DIPG

Nealia House, Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA

Evolution of Life on Earth: tRNA, Aminoacyl-tRNA Synthetase and Genetic Code Evolution

Zachary F. Burton, Professor Emeritus, Michigan State University, E. Lansing, MI

Understanding of GRK4 Signaling Network in Regulation of Cell Growth

Xiaoshan Jiang, Professor, Department of Breast and Thyroid Surgery, Director, Cell Signaling Lab Vice President, The 2nd Affiliated Hospital of Guilin Medical University, China

Tracking Human Hematopoiesis at Single Cell Level

Luca Biasco, Director, AVROBIO, Cambridge, MA

The Role of Hepatic TAZ in Metabolic Regulation

Ji Miao, Assistant Professor of Pediatrics, Division of Endocrinology, Boston Children's Hospital, Harvard Medical School, Boston, MA

Signaling for Cell Migration: RAS's RSKy Adventure in the Cytoskeleton

Michelle Mendoza, Oncological Sciences, Huntsman Cancer Institute, University of Utah, United States

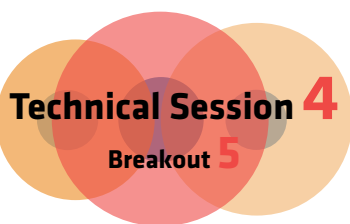
Coffee Break

Uncovering Pathways Controlling Differentiation and Plasticity of Multiciliated Ependyma

Khadar Abdi, Duke University School of Medicine, Department of Cell Biology, Durham, NC

Endocytosis of GM-CSF Receptor β is Essential for Signal Transduction Regulating Mesothelial-Macrophage Transition

Viktória Zsiros, Department of Anatomy, Histology and Embryology, Semmelweis University, Hungary



Cell and Developmental Biology

Chair:

In Vivo Knock-Down of Novel Murine Myogenic Actors Identified by a siRNA-based Screen in C2C12 Myoblasts

Alexis Parenté, University of Limoges, INRA - PEIRENE Laboratory, Faculty of Science and Technology, France

Early Growth Response 1 (Egr1) Coordinates Metabolic and Circadian Regulation of Adipose Functions

Konstantin Kandror, Professor of Biochemistry and Medicine, Boston University School of Medicine, Boston, MA

****Last minute changes due to functional, private, or organizational needs can be necessary. The event organizer accepts no liability for any additional costs caused by a change of program. Program is subject to change

***We wish to see you
at
CEB-2020, Boston***



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