



UNITED Scientific
Group
A non-profit organization

FINAL PROGRAM

2ND INTERNATIONAL CONFERENCE ON

CELL AND EXPERIMENTAL BIOLOGY

JULY 12-14, 2021 | VIRTUAL

WRITE TO US

 organizer@cebconference.com



www.cellexpbiol.unitedscientificgroup.org

About the Organizer

2nd International Conference on Cell and Experimental Biology (CEB-2021) 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-2021



Learn

CEB-2021 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-2021 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.



Previous Edition

CEB-2020 virtual conference was held on 9-11 December, and it was a great success! The conference has brought together more than 140 speakers from leading institutes and organizations having a diverse subject expertise to deliver intensive and thought-provoking presentations.

Scientific Sessions

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
- Cell Signaling & Cancer Biology

7:50 - 8:00

Introduction

**Mogens H. Jensen, Ph.D.**

Professor of Complex Systems and Biophysics,
Former President, Royal Danish Academy of Science and Letters,
Niels Bohr Institute, University of Copenhagen, Denmark

Title: *Oscillations and Chaos in p53 and NF-κB Protein Response*

8.00-8.35

**Dr. Andrea Califano**

Clyde and Helen Wu Professor of Chemical and Systems Biology, Chair, Columbia
Department of Systems Biology, Director, Sulzberger Columbia Genome Center, New
York, NY

Title: *Network-based Elucidation and Pharmacological Targeting
of Cell State Dependencies*

8.35-9.10

**Kenneth A. Jacobson, Ph.D.**

John W. Daly Distinguished Scientist, Senior Investigator and Chief, Molecular
Recognition Section, Laboratory of Bioorganic Chemistry, NIDDK, National Institutes of
Health, Bethesda, MD

Title: *Design and Therapeutic Potential of Purinergic Receptor
Ligands*

9.10-9.45

**Karl Matter, Ph.D.**

UCL Institute of Ophthalmology,
University College London, UK

Title: *Rho GTPase Signalling During Epithelial Morphogenesis
and Polarization*

9.45-10.20

10:20-10:30

Break

**Jorge Moscat, Ph.D.**

Homer T. Hirst III Professor of Oncology in Pathology, Vice Chair for Experimental
Pathology, Weill Cornell Medicine, Assoc. Director Meyer Cancer Center, NY

Title: *Reprogramming and Heterogeneity of Tumor Associated
Fibroblasts in Colorectal Cancer*

10.30-11.05

**Debbie C. Thurmond, Ph.D.**

Ruth and Robert Lanman Chair and Professor, Department of Molecular & Cellular
Endocrinology, Director, Arthur Riggs Diabetes & Metabolism Research Institute, City
of Hope/Beckman Research Institute, Duarte, CA

Title: *SNARE Protein Regulation of Mitochondrial Structure and
Function*

11.05-11.40

**Stephen J. Galli, M.D.**

Mary Hewitt Loveless, MD Professor, Professor of Pathology and of Microbiology and
Immunology, Department of Pathology, Stanford Univ. School of Medicine, Stanford,
CA

Title: *Mast Cells and IgE Orchestrate Protective Immune
Responses to Venoms and Staphylococcus aureus. Is this the
"Good Side" of Allergy?*

11.40-12.15

Time: 12:20-19:00 (EST)

Chair: Jianming Xu (12:20 - 15:00)
Jing Yang (15:10 - 19:00)



Jianming Xu, Ph.D.

Department of Molecular and Cellular Biology,
Baylor College of Medicine, Houston, TX

12.20-12.40

Speaking on

In Vivo Cell Lineage Tracing Links ERα Loss in HER2-Positive Breast Cancers to the Arising of a Highly Aggressive Breast Cancer Subtype



Jing Yang, Ph.D.

Associate Professor,
Houston Methodist Cancer Center,
Houston Methodist Research Institute,
Houston, TX

12.40-13.00

Speaking on

Acetyl-CoA Synthetase 2: A Critical Linkage in Obesity-Induced Tumorigenesis in Myeloma



Partha Roy, Ph.D.

Associate Professor of Bioengineering and
Pathology, University of Pittsburgh,
Pittsburgh, PA

13.00-13.20

Speaking on

Novel Therapeutic Direction in Renal Cancer



Alexander E. Davies, Ph.D.

Department of Veterinary Biosciences, College of
Veterinary Medicine, The Ohio State University,
Columbus, OH

13.20-13.40

Speaking on

Dynamic Signaling Modulates Gene Expression and Drug Response Plasticity in Breast Cancer

13:40-14:00

Break



Mike R. Wilson, Ph.D.

Department of Obstetrics, Gynecology and
Reproductive Biology, College of Human
Medicine, Michigan State University, Grand
Rapids, MI

14.00-14.20

Speaking on

Genetic and Metabolic Mechanisms of Endometrial Cancer Pathogenesis



Nissim Hay, Ph.D.

Distinguished UIC Professor, Assoc. Director,
Basic Science, University of Illinois Cancer
Center, Dept. of Biochemistry and Molecular
Genetics, The University of Illinois at Chicago,
Chicago, IL

14.20-14.40

Speaking on

How to Treat Cancer and Cancer Metastasis with Akt Inhibitors: Lessons Learnt from Studies in Mice



Rene Quevedo, Ph.D.

University Health Network, Canada

14.40-15.00

Speaking on

Cancer Cell Line Identification: Assessment of Genetic Drift in Large Pharmacogenomic Datasets

15:00-15:10

Break



Steven Zheng, Ph.D.

Rutgers Cancer Institute of New Jersey, New Brunswick, NJ

15.10-15.30

Speaking on

SOD1 Promotes Ribosome Biogenesis and Growth of KRAS Mutant Non-small Cell Lung Cancer



Tuyen Dang, Ph.D.

Department of Neurosurgery and Stephenson Cancer Center at OU Health Science Center, Oklahoma City, OK

15.30-15.50

Speaking on

XRN2-mediated Glioblastoma Invasion



Irina Matei, Ph.D.

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

15.50-16.10

Speaking on

Exosomes as Biomarkers and Effectors of Tumor Progression and Metastasis



Zhen Lu, M.D.

Associate Professor, Department of Experimental Therapeutics, UT MD Anderson Cancer Center

16.10-16.30

Speaking on

DIRAS3 Disrupts K-RAS Clustering and Signaling, Enhancing Autophagy and Response to Autophagy Inhibition



Charles Spruck, Ph.D.

Tumor Initiation and Maintenance Program, NCI-designated Cancer Center, Sanford | Burnham | Prebys Medical Discovery Institute, La Jolla, CA

16.30-16.50

Speaking on

FBXO44/SUV39H1 Promote DNA Replication-Coupled Repetitive Element Silencing in Cancer Cells



Debanjan Dhar, Ph.D.

Assistant Professor, Department of Medicine/GI, University of California, San Diego, La Jolla, CA

16.50-17.10

Speaking on

Mechanisms of NASH and HCC Development

17:10-17:20

Break



Jay Desgrosellier, Ph.D.

Assistant Professor, Department of Pathology, Moore's Cancer Center, University of California, San Diego, CA

17.20-17.40

Speaking on

The Activated Stem Cell State in Breast Cancer Progression



Weiwen Long, Ph.D.

Associate Professor, Department of Biochemistry and Molecular Biology, Wright State University, Fairborn, OH

17.40-18.00

Speaking on

Differential Roles of F-Box Proteins in Protein Degradation and Cancer Development: FBXL16 as an Antagonist of Others



Dionysios C. Watson, Ph.D.

Medical Oncology fellow, University Hospitals,
Case Western Reserve University, Cleveland,
OH

18.00-18.20

Speaking on

Unified Workflow for Scalable Isolation of
Extracellular Vesicles from Prokaryotes and
Eukaryotes



Aditya Ganju

Laboratory of Signal Transduction, Memorial
Sloan Kettering Cancer Center, New York, NY

18.20-18.40

Speaking on

ENT1 Insertion into Ceramide-rich Platforms
Functionalizes Gemcitabine Uptake



Auburn Ramsey

Department of Biological Sciences,
Arkansas State University, Jonesboro, AR

18.40-19.00

Speaking on

The Cytoskeletal Protein CAP1 Fulfills Context-
Dependent Functions in the Adhesion and Migration
of Colon Cancer Cells

Cell Signaling & Cancer Biology

Time: 6:10-11:50 (EST)

Chairs: Angus Cameron (6:10 - 9:10)
Sebastian Oltean (9:20 - 11:50)



Amitava Sengupta, Ph.D.

Principal Scientist, Stem Cell & Leukemia Lab,
Cancer Biology Division, CSIR-Indian Institute of
Chemical Biology, India

6.10-6.30

Speaking on

Epigenetic Insights of Mesenchymal Stromal Cell
Lineage Commitments and Hematopoiesis



Alessandro Zannotti, Ph.D.

Department of Experimental and Clinical
Medicine, Universita Politecnica delle Marche,
Italy

6.30-6.50

Speaking on

Macrophages and Immune Responses in Uterine
Fibroids



Angus Cameron, Ph.D.

Kinase Biology Laboratory, Barts Cancer
Institute, Queen Mary, University of London,
John Vane Science Centre, UK

6.50-7.10

Speaking on

Conserved Regulation of Myofibroblast Function by
the Protein Kinase N Family in Embryogenesis and
Cancer



Anthony Uren, Ph.D.

TBA

7.10-7.30

Speaking on

Subclonal Mutations in Lymphoma Reveal Mutation
Co-Selection



Victoria Sanz-Moreno, Ph.D.

Centre for Tumour Microenvironment,
Barts Cancer Institute,
Queen Mary University of London, UK

7.30-7.50

Speaking on

New Roles of ROCK Signalling in Cancer
Progression



Sebastian Oltean, Ph.D.

Associate Professor in Experimental Medicine
and Therapeutics, Institute of Biomedical &
Clinical Sciences, University of Exeter Medical
School, UK

7.50-8.10

Speaking on

Modulation of Alternative Splicing as a New
Therapeutic Avenue in Cancer



Johanna Laakkonen, Ph.D.

Associate Professor, University of Eastern
Finland, Finland

8.10-8.30

Speaking on

Endothelial Crosstalk of VEGF and BMPs: A New
Player in Hippo Signaling



Antoine Mathieu, Ph.D.

Institut de Recherche Interdisciplinaire en
Biologie Humaine et moléculaire (IRIBHM),
Université Libre de Bruxelles, Belgium

8.30-8.50

Speaking on

SHIP2 and its New Partners are Involved in
Invadopodia Formation



Ilaria Dando, Ph.D.

Assistant Professor, Biochemistry Section,
Department of Neurosciences, Biomedicine and
Movement Sciences,
University of Verona, Italy

8.50-9.10

Speaking on

**Cancer Stem Cells Undergo Metabolic Plasticity
Toward the Gaining of the Quiescent State**

9:10-9:20

Break



Ivana Kurelac, Ph.D.

Dipartimento di Scienze Mediche e Chirurgiche,
UO Genetica Medica, Italy

9.20-9.40

Speaking on

**The Effect of Respiratory Complex I Inhibition on
Solid Tumor Microenvironment**



Chuan-Hsiang (Bear) Huang, Ph.D.

Assistant Professor, Department of Pathology,
Johns Hopkins University School of Medicine,
Baltimore, MD

9.40-10.00

Speaking on

Excitability of the Ras-PI3K-ERK Signaling Network



Marta Truffi, Ph.D.

Istituti Clinici Scientifici Maugeri IRCCS, Pavia,
Italy

10.00-10.20

Speaking on

**Targeting Cancer-Associated Fibroblasts by
FAP-Selective Ferritin Nanocages Loaded with
Navitoclax**



Vanesa Fernández-Sáiz, Ph.D.

Technical University of Munich-Klinikum rechts
der Isar, III Med, Germany

10.20-10.40

Speaking on

**Synergistic Mechanism of IMiDs and Proteasomal
Inhibitors in Multiple Myeloma**



Asma Shaikh-Kader

Laser Research Centre, Faculty of Health
Sciences, University of Johannesburg,
South Africa

10.40-11.00

Speaking on

**The Effect of Photobiomodulation at 660 nm on
the Levels of Cyclooxygenase 2, Interleukin-6
and Tumour Necrosis Factor-A in *In Vitro* Diabetic
Wounded Fibroblast Models**



Mirela Sedic, Ph.D.

University of Rijeka Department of
Biotechnology, Croatia

11.00-11.20

Speaking on

**Proteomic Profiling of BRAFV600E Mutant Colon
Cancer Cells Reveals the Role of Nucleophosmin
in Mediating the Resistance to BRAF Inhibition by
Vemurafenib**



Ioanna Sigala

Postdoctoral Researcher, Laboratory of
Biochemistry, Department of Chemistry,
Aristotelian University, Greece

11.20-11.40

Speaking on

**Nuclear Translocation of SRPK1 is Associated with
5-FU Sensitivity in Cancer Cells**

11:40-12:10

Break

Time: 12:10 - 18:50 (EST)

Chair: Ursula Fearon (12:10 - 17:00)
Yong Zhou (17:00 - 18:50)**Yan Chun Li, Ph.D.**

Associate Professor of Medicine, Department of Medicine, The University of Chicago, Chicago, IL

12.10-12.30

Speaking on

Critical Roles of Socs1 mRNA Methylation in the Control of Cytokine Storm

**Lin Wu, Ph.D.**

Dan Littman Lab, Skirball Institute, New York University School of Medicine, New York, NY

12.30-12.50

Speaking on

Metabolic Plasticity Enables Microenvironment Specific Modulation of Th17 cells

**J. Arjuna Ratnayaka, Ph.D.**

Lecturer (Vision Sciences), Faculty of Medicine, University of Southampton, UK

12.50-13.10

Speaking on

Proteinopathy in the Retinal Pigment Epithelium (RPE): Implications for Sight-loss in Old Age

**Cherg-Wen Darren Tan, Ph.D.**

Institute for Synthetic Bioarchitectures, Department of Nanobiotechnology, University of Natural Resources and Life Sciences, Austria

13.10-13.30

Speaking on

Proteoliposome-like Structure Derived from Simultaneous Evisceration and Enucleation of Cells: a Top-Down Story

**Torres Lopez MI, Ph.D.**

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

13.30-13.50

Speaking on

PD1/PDL Pathway Dysregulation in Celiac Disease, and the Role for Diagnostic and as a Therapeutic Target

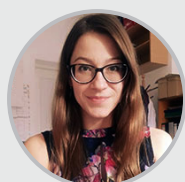
**Linglin Xie, Ph.D.**

Department of Nutrition, Texas A&M University, College Station, TX

13.50-14.10

Speaking on

PCSK6 Plays an Important Role in Placenta Development

**Magdalena Cal, Ph.D.**

Department of Mycology and Genetics, Institute of Genetics and Microbiology, University of Wrocław, Poland

14.10-14.30

Speaking on

Yeast, *Saccharomyces cerevisiae*, as a Model for Research of the Molecular Activity of Potential Drugs**Ursula Fearon, Ph.D.**

Professor of Molecular Rheumatology, Trinity Biomedical Sciences Institute, Trinity College Dublin, the University of Dublin, Ireland

14.30-14.50

Speaking on

Rheumatoid Arthritis CD14+ Monocytes and Tissue Macrophages Display Metabolic and Inflammatory Dysfunction, A Phenotype that Precedes Clinical Manifestation of Disease

14:50-15:00

Break



Arshi Khanam, Ph.D.

Division of Clinical Care and Research, Institute of Human Virology, University of Maryland School of Medicine, Baltimore, MD

15.00-15.20

Speaking on

PD-1 Expressing CD8+CXCR5+ T cells Constitute Effector Rather Than Exhaustive Phenotype in Chronic Hepatitis B Patients



Constantinos Mikelis, Ph.D.

Assistant Professor, Department of Pharmaceutical Sciences, Texas Tech University Health Sciences Center, Jerry H. Hodge School of Pharmacy, Amarillo, TX

15.20-15.40

Speaking on

The Impact of Endothelial RhoA on Tumor Cell Transmigration and Metastasis



Greg Baker, Ph.D.

Laboratory of Systems Pharmacology, Department of Systems Biology, Harvard Medical School, Boston, MA

15.40-16.00

Speaking on

Experimental and Computational Tools for Acquiring and Analyzing Fluidics and Microscopy-based Single-cell Data



Joerg Waldhaus, Ph.D.

Department of Otolaryngology–Head and Neck Surgery, Kresge Hearing Research Institute, University of Michigan, Ann Arbor, MI

16.00-16.20

Speaking on

Mapping the Regulatory Landscape of Auditory Hair Cells from Single-cell Multi-omics Data



Karin Ardon-Dryer, Ph.D.

Assistant Professor, Department of Geosciences, Atmospheric Science Group, Texas Tech University, Lubbock, TX

16.20-16.40

Speaking on

The Impact of Clay Minerals on Lung Cells–an Analysis at the Single Cell Level



Patrick Ganzer, Ph.D.

Senior Research Scientist, Battelle Memorial Institute, Columbus, OH

16.40-17.00

Speaking on

Using Neurotechnology and Artificial Intelligence to Treat Disease



Yong Zhou, Ph.D.

Associate Professor, Department of Medicine, University of Alabama at Birmingham, AL

17.00-17.20

Speaking on

Mechano-niche in Lung Repair/Regeneration Following Injury



Masakazu Kamata, Ph.D.

Associate Professor, Department of Microbiology, University of Alabama at Birmingham, AL

17.20-17.40

Speaking on

Humanized Mouse Models for Cancer-Immunotherapy

17:40-17:50

Break



Luigi Donato, Ph.D.

Department of Biomedical and Dental Sciences and Morphofunctional Imaging, Division of Medical Biotechnologies and Preventive Medicine, University of Messina, Messina, Italy

17.50-18.10

Speaking on

Retinal Ribbon Synapses and Phototransduction Gene Network: How Ion Channels-Encoding Genes Mutations could impair Retinal Biology



Yuliang Xie, Ph.D.

Assistant Professor, Roy J. Carver Department of Biomedical Engineering, University of Iowa, IA

18.10-18.30

Speaking on

Microfluidic Methods in Study of Cystic Fibrosis Lung Disease



Lin Liu

Xie Lab, Department of Nutrition, Texas A&M University, College Station, TX

18.30-18.50

Speaking on

Osr1 Deletion in the Macrophages Promoted Hepatic Inflammation and Nonalcoholic Steatohepatitis (NASH) Progression



Huaizong Shen, Ph.D.

Assistant Professor, School of Life Sciences
Westlake University, China

6.30-6.50

Speaking on

Structural Basis for the Modulation of Human KCNQ4 by Retigabine and Linopirdine



Jie Zheng, Ph.D.

Department of Pharmacology, Key Laboratory of Basic Pharmacology of Ministry of Education, Zunyi Medical University, China

6.50-7.10

Speaking on

Interneuron Accumulation of tau Protein Impairs Adult Hippocampal Neurogenesis



Zhuoyi Song, Ph.D.

Institute of Science and Technology for Brain-Inspired Intelligence, Fudan University, China

7.10-7.30

Speaking on

Multiscale 'Whole-Cell' Models to Study Neural Information Processing – New Insights from Fly Photoreceptor Studies



Jin Young Kim, Ph.D.

Assistant Professor, Department of Biomedical Sciences, City University of Hong Kong, Hong Kong

7.30-7.50

Speaking on

How Circadian Clocks Work for a Brain Repair System: Demyelination Regulates BMAL1 to Signal Adult Neural Stem Cells to Enhance Remyelination



Charlie Arber, Ph.D.

Senior Research Fellow - Alzheimer's Society, Department of Neurodegenerative Disease, UCL Institute of Neurology, UK

7.50-8.10

Speaking on

Familial Alzheimer's Disease Mutations in PSEN1 Lead to Premature Neurogenesis in Human Stem Cells



Zubair Ahmed, Ph.D.

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

8.10-8.30

Speaking on

Inhibiting the DNA Damage Pathway to Promote Recovery from CNS Injury



Concetta Scimone, Ph.D.

Department of Biomedical and Dental Sciences and of Morphological and Functional Images, University of Messina, Italy

8.30-8.50

Speaking on

Involvement of Imprinted Genes in Molecular Mechanism Resulting in Pediatric Brain Arteriovenous Malformation



Nicoletta Plotegher, Ph.D.

Senior Post-doctoral Fellow - Physiology, Genetics and Behavior Unit Department of Biology, University of Padova, Italy

8.50-9.10

Speaking on

Lysosomes Shape Neuronal Ca²⁺ Handling

9:10-9:20

Break



Michal Izrael, Ph.D.

VP of R&D, Neurodegenerative Diseases Department at Kadimastem Ltd, Israel

9.20-9.40

Speaking on

Safety and Efficacy of First-In-Human Intrathecal Transplantation of Human Astrocytes (Astrorx®) in ALS Patients: Phase I/IIa Clinical Trial Results



Channa Bao, Ph.D.

Biogen, Cambridge, MA

9.40-10.00

Speaking on

Mechanisms of Regulation and Diverse Activities of Tau-Tubulin Kinase (TTBK) Isoforms



Fengquan Zhou, Ph.D.

Professor, Department of Orthopedic Surgery and Department of Neuroscience, Johns Hopkins University School of Medicine, Baltimore, MD

10.00-10.20

Speaking on

Epigenetic Regulation of CNS Axon Regeneration



Jeffrey Henderson, Ph.D.

Division of Biomolecular Science, Leslie Dan Faculty of Pharmacy, University of Toronto, Canada

10.20-10.40

Speaking on

Apoptotic/Necroptotic Regulatory Interactions in Cortical Stroke



Julio Morales, Ph.D.

Department of Neurosurgery, Stephenson Cancer Center, University of Oklahoma Health Sciences Center, Oklahoma City, OK

10.40-11.00

Speaking on

RNA:DNA Hybrids Mediate DSB Repair Pathway Choice



Karl Fernandes, Ph.D.

Full Professor, Research Centre on Aging, and Department of Medicine, Faculty of Medicine and Health Sciences, Université de Sherbrooke, Canada

11.00-11.20

Speaking on

Correction of Aberrant Brain Fatty Acid Metabolism in Alzheimer's Disease



Mingyao Ying, Ph.D.

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

11.20-11.40

Speaking on

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



Sanjib K. Guha, Ph.D.

Department of Anesthesiology,
University of Rochester Medical Center,
Rochester, NY

11.40-12.00

Speaking on

Tauopathy-associated tau Modifications Selectively Impact Neurodegeneration and Mitochondrial Health in a Novel *C. elegans* Single-copy Transgenic Model

12:00-12:20

Break



Wanli Smith, Ph.D.

Assoc. Professor, Director of Cellular
Neurobiology Laboratory, Neurobiology
Division, Department of Psychiatry, Johns
Hopkins University School of Medicine,
Baltimore, MD

12.20-12.40

Speaking on

Mutant TMEM230 Induced Neurodegeneration and Impaired Axonal Mitochondrial Transport



Yoshiaki Tanaka, Ph.D.

Assistant Professor, Maisonneuve-Rosemont
Hospital Research Center (CRHMR) Department
of Medicine, Faculty of Medicine University of
Montreal, Canada

12.40-13.00

Speaking on

Single-cell Dissection in Brain Samples and Organoids



Xiaowen Bai, Ph.D.

Associate Professor, Medical College of
Wisconsin, Department of Cell Biology,
Neurobiology & Anatomy, Milwaukee, WI

13.00-13.20

Speaking on

Modeling Brain Disorders Using Human Induced Pluripotent Stem Cell-derived Mini Brains in Culture Dish



Zyanya Espinosa-Riquer

Center for Research and Advanced Studies,
Mexico

13.20-13.40

Speaking on

Negative Regulation of TLR4 Receptor Signaling in Mast Cells: Participation of Opioid, Nicotinic and Cannabinoid Receptors

13:40-14:00

Break

Biochemistry and Molecular Biology

Technical Session 4

Time: 14:00-18:30 (EST)

Chair: Jun Huang



Yaron Shav-Tal, Ph.D.

Vice Dean, The Mina & Everard Goodman
Faculty of Life Sciences & Nano-medicine
Research Center, Institute of Nanotechnology
and Advanced Materials, Bar-Ilan University,
Israel

14.00-14.20

Speaking on

Nuclear Condensates and Gene Expression Regulation - Probing the Connection Using Live-Cell Imaging Approaches



Zhao Wang, Ph.D.

Assistant Professor, Department of Biochemistry
and Molecular Biology, Department of
Molecular and Cellular Biology, Baylor College
of Medicine, Houston, TX

14.20-14.40

Speaking on

Structural Insight of Androgen Receptor-coactivator Complexes



Yuqi Wang

Professor of Biology at Saint Louis University, St. Louis, MO

14.40-15.00

Speaking on

Activation of a MAPK Hog1 by DNA Damaging Agent and Its Potential Role



Yong Teng, Ph.D.

Associate Professor, Department of Hematology and Medical Oncology, Emory University School of Medicine, Winship Cancer Institute of Emory University, Atlanta, GA

15.00-15.20

Speaking on

FGF19/FGFR4 Signaling Axis Confines and Switches the Role of Melatonin in Head and Neck Cancer Metastasis



Parisa Kalantari, Ph.D.

Research Assistant Professor, Department of Immunology, Tufts University, Boston, MA

15.20-15.40

Speaking on

NLRP3 and AIM2 Inflammasome-Triggered Pathogenic Th17 Immune Response Promotes Severe Immunopathology in Schistosomiasis



Ye Zheng, Ph.D.

Associate Professor, Nomis Center for Immunobiology and Microbial Pathogenesis, Salk Institute for Biological Studies, La Jolla, CA

15.40-16.00

Speaking on

A Genome-wide CRISPR Screen Reveals a Role for the BRD9-containing Non-canonical BAF Complex in Foxp3 Expression and Regulatory T Cell Function



Brian Russo, Ph.D.

Assistant Professor, Department of Immunology and Microbiology University of Colorado Anschutz Medical Campus, Aurora, CO

16.00-16.20

Speaking on

Shigella flexneri Disruption of Cellular Tension Promotes Intercellular Spread

16:20-16:30

Break



Joyce Lo, Ph.D.

Biogen, Cambridge, MA

16.30-16.50

Speaking on

Highly Efficient Neuronal Gene Knockout In Vivo by CRISPR-Cas9 via Neonatal Intracerebroventricular Injection of AAV in Mice to Expedite Drug Target Validation



Allen Seylani, Ph.D.

Postbaccalaureate Fellow, National Heart, Lung and Blood Institute, NIH, USA

16.50-17.10

Speaking on

GCN5L1 Interacts with WHAMM and KIF5B To Regulate Autolysosome Tubulation



Saptarshi Roy, Ph.D.

Department of Basic and Translational Sciences, University of Pennsylvania, School of Dental Medicine, Philadelphia, PA

17.10-17.30

Speaking on

Mas-related G Protein-Coupled Receptor-X2 and Adaptor Protein β -arrestin2 Differentially Regulates Mast Cell-Mediated Inflammation and Anaphylaxis



Ellen Busschers

Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX

17.30-17.50

Speaking on

Maf1 and RNA Polymerase III Transcription Regulates Osteoblast Differentiation and Bone Biology



Jun Huang, Ph.D.

Assistant Professor, Pritzker School of Molecular Engineering, University of Chicago, Chicago, IL

17.50-18.10

Speaking on

Lattice Light-Sheet Microscopy Multi-dimensional Analyses (LaMDA) of T-Cell Receptor Dynamics Predict T-Cell Signaling States



Seon Hee Kim, Ph.D.

Department of Bio-Analytical Science, University of Science & Technology, South Korea

18.10-18.30

Speaking on

Detection of the Small Oligonucleotide Products of Nucleotide Excision Repair in Cultured Cells and Human Skin

Time: 7:00 - 17:15 (EST)

Chairs: Sebastian Mathea (07:00 - 9:40)
 Tobias Ulmer (9:50 - 12:45)
 Marco Brotto (13:00 - 15:45)
 Lan Guan (13:00 - 17:15)



Carl White, Ph.D.

Harry Perkins Institute of Medical Research and Centre for Medical Research, The University of Western Australia, QEII Medical Centre, Australia

7.00-7.20

Speaking on

Utilizing Improved BRET Approaches to Understand the Complexities Endogenous GPCR Function



Tobias Bald, Ph.D.

Institute of Experimental Oncology, University Hospital Bonn, Germany

7.20-7.40

Speaking on

Loss of T Cell Activating Receptors; A Novel Immune Escape Mechanism



Jochen Dobner, Ph.D.

Institut für Physikalische Biologie, Heinrich-Heine-Universität Düsseldorf, Germany

7.40-8.00

Speaking on

Unconventional Roles of GABARAP-Type Proteins in Surface Protein Trafficking



Albertus Viljoen, Ph.D.

Louvain Institute of Biomolecular Science and Technology, UCLouvain, Belgium

8.00-8.20

Speaking on

Mycobacterial Cell Surface Adhesive Properties at the Nanoscale



Alicia Roque, Ph.D.

Biochemistry and Molecular Biology Department, Barcelona Autonomous University, Spain

8.20-8.40

Speaking on

Regulation of Histone H1 Subtypes: Lessons Learned from OMICs



Caroline Leijonhufvud, M.D.

Center for Hematology and Regenerative Medicine, Department of Medicine, Huddinge, Karolinska Institute, Sweden

8.40-9.00

Speaking on

CRISPR/Cas9-Based Gene Engineering of Human Natural Killer Cells



Ester Boix, Ph.D.

Department of Biochemistry and Molecular Biology, Universitat Autònoma de Barcelona, Spain

9.00-9.20

Speaking on

A Ribonuclease Secreted by Leucocytes During Infection Shows a Multifaceted Behaviour, Combining Catalytic and Antimicrobial/Antiviral Activities with Immunomodulation Properties



Sebastian Mathea, M.D., Ph.D.

Structural Genomics Consortium, Goethe University, Frankfurt, Germany

9.20-9.40

Speaking on

Structural Insights into Pseudokinase Domains

9:40-9:50

Break

**Dayoung Oh, Ph.D.**

Assistant Professor, Touchstone Diabetes Center,
Department of Internal Medicine,
UT Southwestern Medical Center,
Dallas, TX

9.50-10.10

Speaking on

Revisiting PPAR γ as a New Friend of GPR120 in the
Treatment of Metabolic Disorders: A New Look at
an Old Friend

**Devanand Sarkar, Ph.D.**

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

10.10-10.30

Speaking on

Regulation of Nuclear Receptor Function by
Astrocyte Elevated Gene-1 (AEG-1)

**Francesca Storici, Ph.D.**

HIMI Faculty Scholar, GRA Distinguished
Cancer Scientist, Professor, Associate Chair for
Graduate Affairs, School of Biological Sciences,
Georgia Institute of Technology, Atlanta, GA

10.30-10.50

Speaking on

Frequency and Patterns of Ribonucleotide
Incorporation Around Autonomously Replicating
Sequences Mark the Division of Labor of Yeast DNA
Polymerases

**Juan Fuxman Bass, Ph.D.**

Assistant Professor, Boston University, Biology
Department, Boston, MA

10.50-11.10

Speaking on

The Role of Human Virus Transcriptional Regulators
on Host Gene Expression

**Tobias Ulmer, Ph.D.**

Department of Physiology and Neuroscience,
Zilkha Neurogenetic Institute, Keck School of
Medicine, University of Southern California, Los
Angeles, CA

11.10-11.30

Speaking on

Insight into Pathological Integrin $[\alpha]_{IIb}[\beta]_3$
Activation from Safeguarding the Inactive State

**Darya Alizadeh, Ph.D.**

Assistant Research Professor, Department
of Hematology and Hematopoietic Cell
Transplantation, City of Hope, Duarte, CA

11.30-11.50

Speaking on

IFN γ is Critical for CAR T Cell Mediated Myeloid
Activation and Induction of Endogenous Immunity

**Jorge Genovese, Ph.D.**

Leonhardt's Launchpads Irvine Inc., CA

11.50-12.10

Speaking on

Electrical Stimulation for Gene Expression
Modulation and Therapeutic Proteins Production

**Jürgen Wess, Ph.D.**

Chief, Molecular Signaling Section,
Lab. of Bioorganic Chemistry,
NIDDK, National Institutes of Health,
Bethesda, MD

12.10-12.30

Speaking on

Identification of GPCR Signaling Pathways as
Potential Targets for Novel Antidiabetic Drugs



Chiara Siniscalchi, Ph.D.

Department of Environmental, Biological and Pharmaceutical Sciences and Technologies, University of Campania "Luigi Vanvitelli", Italy

12.30-12.45

Speaking on

What microRNAs Could Tell us About the Human X Chromosome

12:45-13:00

Break



Lan Guan, Ph.D.

Professor, Director, Center for Membrane Protein Research, Texas Tech University Health Sciences Center, Lubbock, TX

13.00-13.25

Speaking on

Molecular Recognition of Sugar Binding in the Melibiose Permease MelB



Marco Brotto, Ph.D.

George & Mary Hazel Jay Endowed Professor, Director, Bone-Muscle Research Center, University of Texas at Arlington, TX

13.25-13.45

Speaking on

Lipid Signaling Regulation of Skeletal Muscle Proliferation and Regeneration – Roles of PGE2



Nicholas Guydosh, Ph.D.

Stadtman Investigator, Laboratory of Biochemistry and Genetics, NIDDK/NIH, Bethesda, MD

13.45-14.05

Speaking on

Activation of the Antiviral Factor RNase L Promotes Translation Outside Coding Sequences



Pinghui Feng, Ph.D.

Section of Infection and Immunity, Norris Comprehensive Cancer Center, University of Southern California, Los Angeles, CA

14.05-14.25

Speaking on

Deamidation Shunts RelA from Mediating Inflammatory Response to Aerobic Glycolysis



Racheal G. Akwii

Texas Tech University Health Sciences Center, Amarillo, TX

14.25-14.45

Speaking on

Angiopoietin-2-induced Lymphatic Endothelial Cell Migration Drives Lymphangiogenesis Via the B1 Integrin-Rhoa-Formin Axis



Richard Cooley, Ph.D.

Assistant Professor (Senior Research), Department of Biochemistry & Biophysics, Oregon State University, Corvallis, OR

14.45-15.05

Speaking on

Evolving Genetic Code Expansion: Next Generation Technologies for Revealing Molecular Mechanisms of Oxidative Stress and Protein Nitration



Sang W. Park, Ph.D.

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

15.05-15.25

Speaking on

Molecular Mechanism of Insulin Resistance in Obesity



Tae Yeon Yoo, Ph.D.

Department of Systems Biology, Blavatnik Institute, Harvard Medical School, Boston, MA

15.25-15.45

Speaking on

O-GlcNAc Modification of Nuclear Pore Complex Accelerates Bidirectional Transport

15:45-15:55

Break



Tianmin Fu, Ph.D.

Assistant Professor, Department of Biological Chemistry and Pharmacology, College of Medicine, The Ohio State University, Columbus, OH

15.55-16.15

Speaking on

Visualizing a Sugar-coated Proton Pump



Wei Ying, Ph.D.

Assistant Professor, Division of Endocrinology & Metabolism, Department of Medicine, University of California, San Diego, CA

16.15-16.35

Speaking on

Tuning Insulin Sensitivity by Macrophage-produced Exosomal miRNAs



Wenyi Feng, Ph.D.

Associate Professor, Department of Biochemistry and Molecular Biology, SUNY Upstate Medical University, Syracuse, NY

16.35-16.55

Speaking on

FMRP Functions as an R-loop Regulator: Implications for Replication Stress-induced Global Chromosome Breakage in the Fragile X Genome



Yali Dou, Ph.D.

Professor of Medicine, Professor of Biochemistry and Molecular Medicine, Co-leader, Genomics and Epigenomics Regulation Program, Norris Comprehensive Cancer Center, University of Southern California, Los Angeles, CA

16.55-17.15

Speaking on

Mechanism for Histone Methylation Heterogeneity

Time: 7:40 - 18:10 (EST)

Chairs: Torres Lopez MI (7:40 - 9:40)
 Ben Afzali (9:50 - 12:30)
 Maura McGrail (12:40 - 15:20)
 Xiang-Dong Fu (15:30 - 18:10)



Xiaopeng Hu
 Shanghai Jiao Tong University, China

7.40-8.00

Speaking on

GAS5/miR-21 Axis as a Potential Target to Rescue ZCL-082-Induced Autophagy of Female Germline Stem Cells *In Vitro*



David Jackson, Ph.D.
 Professor of Human Immunology, MRC Human Immunology Unit, MRC Weatherall Institute for Molecular Medicine, University of Oxford, UK

8.00-8.20

Speaking on

Leucocyte Trafficking in the Lymphatics: the Key Roles of Hyaluronan and Its Receptors During Vessel Entry



Ionel Sandovici, Ph.D.
 Research Associate, Metabolic Research Laboratories, MRC Metabolic Diseases Unit, Department of Obstetrics & Gynaecology, University of Cambridge, UK

8.20-8.40

Speaking on

Novel Insights into the Regulation of Pancreas Development and Function by the Imprinted Igf2 Gene



Jan Hendrik Niess, Ph.D.
 Department of Biomedicine, University of Basel and Clarunis - University Center for Gastrointestinal and Liver Diseases, Switzerland

8.40-9.00

Speaking on

GPR35-mediated TNF Production in Macrophages



Lousineh Arakelian, Ph.D.
 Unite de Therapie Cellulaire, Hopital Saint-Louis, Assistance Publique - Hopitaux de Paris; Universite de Paris, Inserm U976 et CIC de Biotherapies CBT501, France

9.00-9.20

Speaking on

Self-organization and Culture of Mesenchymal Stem Cell Spheroids in Acoustic Levitation



Marielle Afanassieff, Ph.D.
 Stem cell and Brain Research Institute, University of Lyon, INSERM U1208, France

9.20-9.40

Speaking on

Rabbit Pluripotent Stem Cells: Why and How to Produce Them?

9:40-9:50

Break



Sam Keating, Ph.D.

Section for Ecology and Evolution, Department of Biology, University of Copenhagen, Denmark

9.50-10.10

Speaking on

Unraveling the Origin and Impact of Extrachromosomal Circular DNA on Eukaryotic Genomes



Olivier Cuvier, Ph.D.

Principal Investigator/(DR-Inserm), Group leader Lab of Chromatin Dynamics, Center for Integrative Biology (CBI), CNRS - Univ. of Toulouse, France

10.10-10.30

Speaking on

Detecting How Chromatin Insulators and KMTs Maintain 3D Compartments and Prevent Promiscuous Long-range Contacts with Off-target Genes



Mohamed Kamal, Ph.D.

Pharmacology and Biochemistry Department, Faculty of Pharmacy, The British University in Egypt (BUE), Cairo, Egypt

10.30-10.50

Speaking on

Mesenchymal Stem Cells in Diabetes mellitus Treatment-Several Weapons for One Target



Alakananda Basu, Ph.D.

Professor, Department of Microbiology, Immunology & Genetics, UNT Health Science Center, Fort Worth, TX

10.50-11.10

Speaking on

Contrasting Roles of S6K1 and S6K2 in Breast Cancer



Sarah D. Mahan, Ph.D.

Promega Corporation, 2800 Woods Hollow Road, Madison, WI

11.10-11.30

Speaking on

Characterizing Mechanistic Improvements of Epigenetic PROTAC Degradation Compounds



Ben Afzali, Ph.D.

Chief, Immunoregulation Section, Kidney Diseases Branch, NIDDK, National Institutes of Health, Bethesda, MD

11.30-11.50

Speaking on

Transcriptional Regulation of T Cell-mediated Tissue Inflammation and Repair



Bokai Zhu, Ph.D.

Assistant Professor of Medicine, Aging Institute of UPMC, Pittsburgh Liver Research Center, Division of Endocrinology and Metabolism, Department of Medicine, University of Pittsburgh School of Medicine, Pittsburgh, PA

11.50-12.10

Speaking on

Unveiling "Musica Universalis" of the Cell: A Brief History of the Mammalian 12h Rhythms



Jaan Mannik, Ph.D.

Associate Professor, Department of Physics and Astronomy, The University of Tennessee, Knoxville, TN

12.10-12.30

Speaking on

What Triggers the Z-ring Formation in Escherichia coli?

12:30-12:40

Break



Jess G. Thoene, M.D.

Active Professor Emeritus, Department of Pediatrics, Division of Pediatric Genetics, Metabolism & Genomic Medicine, University of Michigan, Ann Arbor, MI

12.40-13.00

Speaking on

Delivery of Functional Lysosomal Transport Proteins Via Microvesicles Derived from Baculovirus-Infected Spodoptera Cells to Cultured Fibroblasts and Ex Vivo Rabbit Cornea



Karthickeyan Chella Krishnan, Ph.D.

Assistant Professor, Pharmacology & Systems Physiology, University of Cincinnati College of Medicine, Cincinnati, OH

13.00-13.20

Speaking on

Sex, Mitochondria and Fat Metabolism



Kate Beishline, Ph.D.

Assistant Professor, Department of Biological and Allied Health Sciences, Bloomsburg University, Bloomsburg, PA

13.20-13.40

Speaking on

A Tale of TERRA and the Transcriptional Regulation of Telomeres



Marie-Dominique Filippi, Ph.D.

Cincinnati Children's Hospital Research Foundation, University and Cincinnati College of Medicine, Cincinnati, OH

13.40-14.00

Speaking on

The Role of Mitochondria in Hematopoietic Stem Cell Regenerative Stress



Maura McGrail, Ph.D.

Associate Professor, Department of Genetics, Development and Cell Biology, Iowa State University, Ames, IA

14.00-14.20

Speaking on

Zebrafish Cre/lox Conditional Gene Alleles Generated by CRISPR/Cas9 Precision Targeted Integration



Pin-Chao Liao, Ph.D.

Department of Pathology and Cell Biology, Columbia University, New York, NY

14.20-14.40

Speaking on

Mitochondria-Associated Degradation Pathway (MAD) Function beyond the Outer Membrane



Samantha Townsley, Ph.D.

U.S. Military HIV Research Program, Center of Infectious Disease Research, Walter Reed Army Institute of Research, Silver Spring, MD

14.40-15.00

Speaking on

B Cell Engagement with HIV-1 Founder Virus Envelope Predicts Development of Broadly Neutralizing Antibodies



Seena K. Ajit, Ph.D.

Associate Professor, Pharmacology & Physiology, Drexel University College of Medicine, Philadelphia, PA

15.00-15.20

Speaking on

Xist Attenuates Acute Inflammatory Response by Female Cells

15:20-15:30

Break



Vivianne Morrison, Ph.D.

Vanderbilt University Department of Biochemistry and Vanderbilt Brain Institute, Nashville, TN

15.30-15.50

Speaking on

Loss of Jedi-1 Impairs Microglial Phagocytosis, Resulting in Reduced Postnatal Neurogenesis in the Subventricular Zone



Xiang-Dong Fu, Ph.D.

Distinguished Professor, Department of Cellular and Molecular Medicine, University of California, San Diego, George Palade Laboratories, La Jolla, CA

15.50-16.10

Speaking on

SRPK1-catalyzed Protamine-to-Histone Exchange in Fertilized Oocyte



Yasir AlSiraj, Ph.D.

Assistant Professor, Department of Pharmacology and Nutritional Sciences, University of Kentucky, Lexington, KY

16.10-16.30

Speaking on

XX Sex Chromosome Complement Promotes Atherosclerosis in Mice



Yi Zhang, Ph.D.

Department of Pharmacology, University of Colorado Anschutz Medical Campus, Aurora, CO

16.30-16.50

Speaking on

Dynamics and Regulation of Nuclear Condensates



Jonathan Stahl-Meyer, Ph.D.

The Danish Cancer Society Research Center, Cell Death and Metabolism, Denmark

16.50-17.10

Speaking on

Lysosomes in Chromosome Segregation



Deena Damschroder

Department of Physiology, Wayne State University, Detroit, MI

17.10-17.30

Speaking on

Targeting Mitochondrial Metabolism to Rescue a Drosophila Model of Barth Syndrome



Kathryn Hally, Ph.D.

Department of Surgery and Anaesthesia, The University of Otago, New Zealand

17.30-17.50

Speaking on

Revisiting Platelets and Toll-like Receptors (TLRs): A Spotlight on Platelet-TLRs in Acute Myocardial Infarction



Chantal Coles, Ph.D.

Murdoch Children's Research Institute, The Royal Children's Hospital, Australia

17.50-18.10

Speaking on

Knockdown of A Disintegrin and Metalloprotease 12 (ADAM12) in 3T3-L1 Cells Reduces Cell Numbers, Delays Differentiation and Increases Lipid Accumulation During Adipogenesis *In Vitro*



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