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

Day 1 | July 12, 2021

Keynote Speakers

Time: 08:00 - 12:15 (EST)

Chair: TBA

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-kB 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

Cell Signaling & Cancer Biology

Technical Session 1

Time: 12.20-18.40 (EST)

Chair: TBA

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 ERa 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

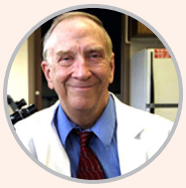
Speaking on: Novel Therapeutic Direction in Renal Cancer

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



John Pawelek, Ph.D.

Senior Research Scientist (Ret), Department of Dermatology and the Yale Comprehensive Cancer Center, Yale School of Medicine, New Haven, CT

13.40-14.00

Speaking on: A Melanoma Patient with Macrophage-Cancer Cell Hybrids in the Primary Tumor, a Node Metastasis and a Brain Metastasis

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

Day 1 | July 12, 2021

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**

Day 1 | July 12, 2021

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

Day 2 | July 13, 2021

Break-out 1

Cell Signaling & Cancer Biology

Time: 6.10-11.50 (EST)

Chair: TBA

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**

Day 2 | July 13, 2021

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

11.20-11.35

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

Atieh Moradimotlagh

Department of Microbiology, School of Biology, College of Science, University of Tehran, Iran

11.35-11.50

Speaking on: MicroRNAs, a Potential Approach in Obstructing Glioblastoma Cell Signaling

11.50-12.10 Break

Experimental Biology and Disease Physiology

Technical Session 2

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

Chair: TBA

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 Ctokine 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

Cherng-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 Wroclaw, Poland

14.10-14.30

Speaking on: Yeast, *Saccharomyces cerevisiae*, as a Model for Research of the Molecular Activity of Potential Drugs

Day 2 | July 13, 2021

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.

Principal 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**

Day 2 | July 13, 2021

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**

Day 2 | July 13, 2021

Break-out 2

Cellular and Molecular Neurobiology

Technical Session 3

Time: 6:30 - 13:40 (EST)

Chair: TBA

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**

Day 2 | July 13, 2021

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 Ca^{2+} 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**

Day 2 | July 13, 2021

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: TBA

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**

Day 2 | July 13, 2021

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 Validatio

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

Day 2 | July 13, 2021

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

Day 3 | July 14, 2021

Break-out 1

Biochemistry and Molecular Biology

Technical Session 4

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

Chair: TBA

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 Autonoma 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, Ph.D.

Structural Genomics Consortium, Goethe University, Frankfurt, Germany

9.20-9.40

Speaking on: Structural Insights into Pseudokinase Domains

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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 PPARγ 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.

HHMI 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 [α]IIb[β]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: **IFNg 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**

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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 β1 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**

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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**

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Break-out 2

Cell and Developmental Biology

Technical Session 5

Time: 7:20 - 18:10 (EST)

Chair: TBA

Xiaopeng Hu
Shanghai Jiao Tong University, China

7.20-7.40

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

Dagan Jenkins, Ph.D.

Associate Professor of Genetics, Great Ormond Street Institute of Child Health, University College London, UK

7.40-8.00

Speaking on: Novel Function and Clonal Variability of BBS1 in Epithelial Cell Identity

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 ty 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

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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**

Fulai Jin, Ph.D.

Assistant Professor, Department of Genetics and Genome Sciences, Case Western Reserve University, Cleveland, OH

11.10-11.30

Speaking on **Robust Mapping of DNA Loops at Kilobase Resolution from Low Depth Allele-resolved or Single-cell Hi-C Data**

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**

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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**

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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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