



**UNITED** Scientific Group  
A non-profit organization

# FINAL PROGRAM

2<sup>ND</sup> INTERNATIONAL CONFERENCE ON

# CELL AND EXPERIMENTAL BIOLOGY

JULY 12-14, 2021 | VIRTUAL

WRITE TO US

 [organizer@cebconference.com](mailto:organizer@cebconference.com)



[www.cellexpbiol.unitedscientificgroup.org](http://www.cellexpbiol.unitedscientificgroup.org)

# About the Organizer

2<sup>nd</sup> 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



**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

8.00-8.35

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



**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

8.35-9.10

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



**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

9.10-9.45

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



**Karl Matter, Ph.D.**

UCL Institute of Ophthalmology,  
University College London, UK

9.45-10.20

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

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

10.30-11.05

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



**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

11.05-11.40

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



**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

11.40-12.15

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



**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 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?

## Rabbit Pluripotent stem cells: why and how to produce them?

Marielle Afanassieff <sup>1\*</sup>

*Stem cell and Brain Research Institute, University of Lyon, INSERM U1208, INRAE USC1361, France*

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### Abstract

Pluripotent stem cells (PSCs) possess two main properties: self-renewal and pluripotency. Self-renewal is defined as the ability to proliferate in an undifferentiated state and pluripotency as the capacity to differentiate into cells of the three germ layers: ectoderm, mesoderm, and endoderm. PSCs are derived from early embryos as embryonic stem cells (ESCs) or are produced by reprogramming somatic cells into induced pluripotent stem cells (iPSCs). In mice, PSCs can be stabilized into two states of pluripotency: naive and primed. Naive and primed PSCs notably differ by their ability to colonize a host blastocyst to produce germline competent chimeras; hence, naive PSCs are valuable for transgenesis, whereas primed PSCs are not. Thanks to its physiological and developmental peculiarities similar to those of primates, the rabbit is an interesting animal model for studying human diseases and early embryonic development. Both ESCs and iPSCs have been described in rabbits. They self-renew in the primed state of pluripotency and therefore, cannot be used for transgenesis. The presentation will review the interest of rabbit PSCs, the available data on their pluripotent state and their chimeric ability, the methods developed to improve their capacity to produce germline competent chimeras, and the possible alternatives to exploit them for transgenesis.

### Biography:

Marielle Afanassieff has been working on the creation of animal models for human diseases at the French National Institute for Agriculture, Food and Environment since 1992. She is part of a team that studies the molecular and cellular mechanisms responsible for pluripotency of embryonic stem cells in mammals, and has been interested in the rabbit model since 2004. Her work aims to define the signaling pathways, chromatin modifiers and cell cycle regulators that support naïve-state pluripotency in rabbits. She is exploring how these factors can be manipulated to generate embryonic or induced pluripotent stem cells capable of efficiently colonizing host blastocysts.



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