

The 12th Royan International Congress on Stem Cell Biology and Technology (2016) International Invited Speakers



Prof. Juergen Knoblich

Senior Scientist & Deputy,
Scientific Director
of IMBA-Institute of Molecular
Biotechnology,
Austria

Key Research Areas:

neural stem cells and the development of the nervous system in Drosophila and vertebrates, identifying key regulators of asymmetric stem cell division and demonstrating mutations in genes controlling cell division drive tumor development in the brain

1. Modelling Human Brain Development in 3D Culture
2. Using Cerebral Organoids to Model Neurological Disorders



Prof. Ali Khademhosseini

Professor at Harvard Medical School, Faculty at the Harvard-MIT's Division of Health Sciences and Technology, Brigham and Women's Hospital (BWH), USA

Key Research Areas:

developing micro- and nanoscale biomaterials to control cellular behavior with particular emphasis in developing engineered materials and systems for tissue engineering

1. Emerging Organ Models and Organ Printing for Regenerative Medicine
2. Microengineered Hydrogels for Stem Cell Bioengineering



Prof. Ralf Sanzenbacher

Deputy Head of Section,
Engineering & Cell
Therapeutics, Paul-Ehrlich-
Institut; Federal Institute for
Vaccines and Biomedicines
Section 6/3,
Germany

Key Research Areas:

*evaluating cell- and tissue-based
medicinal products, national and
European authorisation procedures,
and the development of regulatory
guidance*

1. EU Regulation Framework for Licensing of Atmps
2. Bedside Practice, Hospital Exemption and Market Approval: Challenges for Cell Therapy Product Development



Prof. Henrik Semb

Professor of Human Stem Cell
Biology,
DanStem Managing Director,
University of Copenhagen,
Denmark

Key Research Areas:

*applying a combination of in vivo and
in vitro tools to decipher a range of
cellular mechanisms, through multi-
disciplinary approach to research,
developing pancreas and disease using
developmental biology and stem cell
research*

1. Translating New Discoveries in Beta Cell Development into Expandable Production of Beta Cells from Human Pluripotent Stem Cells (Part 1)
2. Translating New Discoveries in Beta Cell Development into Expandable Production of Beta Cells from Human Pluripotent Stem Cells (Part 2)



Prof. Kun Ping Lu

Professor of Medicine in
Harvard Medical School,
Director of Translational
Therapeutics
The Cancer Center,
USA

Key Research Areas:

*elucidating the role of protein
conformational regulation after
proline-directed phosphorylation in cell*

1. Pin1-Catalyzed Signaling Regulation of Normal and Cancer Stem Cells
2. Antibody Against Early Disease Driver Cis P-Tau in Alzheimer's Disease and Brain Injury

*signaling in health and disease,
identifying promising novel targeted
therapies for treating cancer, traumatic
brain injury and Alzheimer's disease*



Prof. Pedro L. Herrera

Professor of Department of
Genetic Medicine and
Development,
University of Geneva Medical
Center,
Switzerland

Key Research Areas:

*Determining cell fates, establishing
islet cell lineages and differentiating /
regenerating potential for adult
pancreatic cells*

1. Reconstitution of Insulin-Producing Cells by Islet Cell Type Interconversion
2. Pancreatic Islet Cell Plasticity in Different Mouse Models of Diabetes



Prof. Jeong Beom Kim

Professor of Ulsan National
Institute of Science and
Technology, Ulsan,
Republic of Korea

Key Research Areas:

*Reprogramming, Induced pluripotent
stem cells, Direct conversion, Stem
Cells, Specific stem cells
Regenerative medicine*

1. Direct Lineage Conversion of Fibroblasts into Oligodendrocyte Progenitor Cell for Spinal Cord Injury
2. Generation of Induced Hepatocyte-Like Cells from Fibroblasts by Defined Factors



Dr. Nasim Annabi

Assistant Professor of
Department of Chemical
Engineering, College of
Engineering,
Northeastern University,
USA

Key Research Areas:

*integrating biomaterials, tissue
engineering approaches,
micro and nanoscale technologies to
create 3D, vascularized tissue construct*

1. Engineering a Highly Elastic Surgical Sealant
2. A Novel Nanomaterial/Hydrogel Composite for Soft Tissue Regeneration



Prof. Zaal Kokaia

Professor of Experimental Medical Research, Director of Lund Stem Cell Center, Head of the Laboratory of Stem Cells & Restorative Neurology, Lund University, Sweden

1. Adult Neurogenesis after Ischemic Stroke
2. Stem Cell Therapy for Stroke - Current Status and Future Perspectives

Key Research Areas

clarifying the cellular mechanisms of regeneration new therapeutic strategies to restore function in this organ (primarily in stroke and Parkinson's disease) by transplantation of stem cells



Prof. Agnete Kirkeby,

Group Leader at Lund University, Department of Human Neural Development, Wallenberg Neuroscience Center Lund University, Sweden

1. Bringing Hescs to The Clinic for Treatment of Parkinson's Disease
2. Modelling Human Neural Tube Patterning with Microfluidic Gradients

Key Research Areas

Developing GMP-compliant hESC-based cell therapy for Parkinson's Disease, Understanding and controlling neural patterning of pluripotent cell, Studying human-specific brain development



Prof. Andreas Serra

Professor and Head of Department of Internal Medicine and Nephrology, Medical Faculty, University of Zurich
Hirslanden Klinik, European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB), Switzerland

1. Autosomal Dominant Polycystic Kidney Disease: A Newly Treatable Disease
2. Tuberous Sclerosis Complex: Elucidating Disease Mechanism to Design Treatment

Key Research Areas

Ultrasonography (SGUM), Nephrology, General Internal Medicine, Diagnosis and Treatment of Complex Diseases, Rare Diseases, Polycystic kidney disease, Tuberous Sclerosis, Ultrasound / CEUS



Prof. Michele De Luca

Professor of Biochemistry, Director of Centre for Regenerative Medicine "Stefano Ferrari", University of Modena and Reggio Emilia, Italy

1. Long-Term Corneal Regeneration by Autologous Cultures of Limbal Stem Cells
2. Combined Cell and Gene Therapy of Epidermolysis Bullosa

Key research areas:

epithelial stem cell biology, human epidermal stem cell cultures in life-saving treatment of massive full-thickness burns and in repigmentation of stable vitiligo and piebaldism



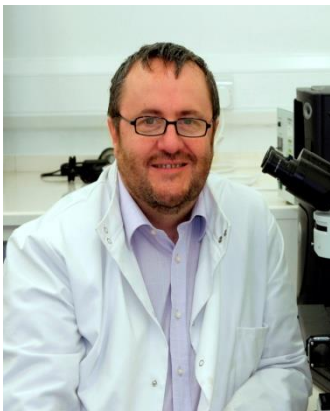
Prof. Jackie Ying

Professor of Chemical Engineering,
Department of Chemical Engineering,
Nanostructured Materials Research Laboratory,
[Massachusetts Institute of Technology](https://www.mit.edu) (MIT),
USA

1. Nanostructure Materials for Biomedical Applications
2. Nanobiomaterials for Cell and Tissue Engineering

Key research areas:

The processing of nanostructured materials which have unique microstructure and exceptional size-dependent properties



Prof. Pete Coffey

Professor
Head of Ocular Biology & Therapeutics
Institute of Ophthalmology
University College,
UK

1. Stemming Vision Loss in Age Related Macular Degeneration
2. Disease Modelling Using Induced Pluripotent Stem Cells

Key research areas:

Two major groups of diseases termed retinitis pigmentosa and age-related macular degeneration are the leading causes of blindness.



Prof. Stephan Grupp

Novotny Professor of Pediatrics
University of Pennsylvania
Perelman School of Medicine,
Director, Cancer Immunotherapy Frontier Program,
USA

1. Lab Correlates of Highly Active Cell Therapy: Letting Our Patients Teach Us in A Bedside to Bench Approach
2. The CAR T Revolution in Hematologic Malignancies

Key research areas:

the use of engineered cell therapies in

high-risk pediatric cancers, leading the largest and most successful CAR T cell (engineered T cell therapy) clinical trials conducted to date (CART19/CTL019^{1,2})



Dr. Christian van den Bos

Director at Mares Ltd.
Germany

Key research areas:

Commercializing ATMPs, development of advanced therapeutics and their industrial production, protein manufacture, GMP production, regulatory and clinical trials.

1. Commercialization of ATMPs: Regulatory, Technical and Economical Challenges