

27th June, 2024



# Polish-American Symposium

## “Power of stem cells to model embryos and organs”



**Organiser, Chair**  
**Prof. Leonora Bużańska**  
Mossakowski Medical Research  
Institute, Polish Academy of Sciences



**Chair**  
**Prof. Marek Krawczyk**  
Dean of the Medical Division,  
Polish Academy of Sciences



**Chair**  
**Prof. Maria Anna Ciemerych-Litwinienko**  
Faculty of Biology,  
University of Warsaw



**Chair**  
**Prof. Dorota Pijanowska**  
Nalecz Institute of Biocybernetics  
and Biomedical Engineering,  
Polish Academy of Sciences

### Guest Speakers:



**Prof. Magdalena Żernicka-Goetz**  
California Institute of Technology  
(CalTech), Pasadena, CA, USA  
University of Cambridge, UK



**Prof. Tomasz Nowakowski**  
University of California  
San Francisco (UCSF),  
San Francisco, CA, USA



**Prof. Anirban Dutta**  
State University of New York  
(SUNY), Buffalo, NY, USA  
University of Birmingham, UK



**Prof. Michał Stachowiak**  
State University of New York  
(SUNY), Buffalo, NY, USA



**Prof. Natalia Rozwadowska**  
Institute of Human  
Genetics, PAS  
Poznań, Poland



**Prof. Maciej Figiel**  
Institute of Bioorganic  
Chemistry, PAS  
Poznań, Poland



**Valery Zayat, PhD**  
Mossakowski Medical  
Research Institute, PAS  
Warsaw, Poland



**Michalina Wężyk, PhD**  
Mossakowski Medical  
Research Institute, PAS  
Warsaw, Poland

#### HONORARY PATRONAGE



Marshal of the  
Mazowieckie  
Voivodeship

#### PATRONAGE



Medical Sciences  
Division,  
Polish Academy  
of Sciences

#### ORGANIZERS



Advisory Board for Stem Cells  
and Cellular Therapies  
of Medical Sciences Division, PAS

#### EVENT VENUE

IBiB PAN  
Conference Center  
Ks. Trojdena 4 Street,  
Warsaw

# AGENDA

**11:00 Welcome participants by organizer - Prof. Leonora Bużańska**

## SESSION I:

**Chair - Prof. Marek Krawczyk & Prof. Maria Anna Ciemerych-Litwinienko**

**11:05** *Introduction to stem cells modelling of embryo and organs*  
Prof. Leonora Bużańska

**11:20** *Modelling development with stem cells: the power of self-organization*  
Prof. Magdalena Żernicka-Goetz

**11:50** *Developmental strategies of human neural stem cells and their relevance to psychiatric disorders*  
Prof. Tomasz Nowakowski

**12:20** *Complex systems analysis of neonatal brain and organoids*  
Prof. Anirban Dutta

**12:50** Panel discussion

**13:10** Lunch

## SESSION II:

**Chair - Prof. Leonora Bużańska & Prof. Dorota Pijanowska**

**13:50** *Stem Cells as a tool to study myogenic differentiation*  
Prof. Maria Anna Ciemerych-Litwinienko

**14:10** *Advanced tissue models derived from human iPSC for human heart modelling*  
Prof. Natalia Rozwadowska

**14:30** *Modelling neurodevelopmental pathogenesis of Huntington Disease with human iPSC lines and brain organoids*  
Prof. Maciej Figiel

**14:45** *Generation of iPSC lines and forebrain organoids to model Dravet Syndrom*  
Valery Zayat, PhD

**15:00** *Modelling of pre-symptomatic synaptic disorders in Alzheimer's disease with cortical organoids*  
Michalina Wężyk, PhD

**15:15** *Systems and organoid approach to model schizophrenia*  
Prof. Michał Stachowiak

**15:40** Panel discussion

**16:00** Closing remarks by organizer - Prof. Leonora Bużańska