



**MODERN METHODS OF BIOVISUALIZATION  
IN PHYSIOLOGY AND MEDICINE**

**October 16-18, 2023, Yerevan, Armenia**

**OCTOBER 16, 2023: HORIZON EUROPE,  
ERA CHAIR NAR-SAR-IPH KICK-OFF EVENT**

**OCTOBER 17, 2023: BIO-SEE 2023 ANNUAL MEETING**

**OCTOBER 18, 2023: 80TH ANNIVERSARY OF THE L. A. ORBELI  
INSTITUTE OF PHYSIOLOGY NAS RA**

**DAY 1: October 16th, Monday**

**13:00-14:00 Registration**

**14:00-14:30 Welcoming addresses:**

**Prof. R. Aroutiounian**, Academician-Secretary of the Division of Natural Sciences of NAS RA

**Mr. V. Maragos**, The head of the European Union delegation in Armenia, Ambassador, *(TBC)*

**Dr. S. Hayotsyan**, Chairman of the RA MESCS Higher Education and Science Committee *(TBC)*

**14:30 T. Arzumanyan**, Chairman, Scientific and Innovation Partnership Assistance Center, EU Horizon Europe NCP Coordinator - "Horizon Europe Programme: Opportunities Towards Excellence"

**14:50 N. Ayvazyan**, PhD, Prof. ERA Chair project PI (Orbeli Institute of Physiology of NAS RA, Yerevan, Armenia) - Project overview, work packages and milestones

**15:10 N. Sarvazyan**, PhD, Prof., ERA Chair Holder (George Washington University, USA) - Scientific part overview and directions

**15:30 M. Sianozova**, MD, MPH, ERA Chair Project Managing Director (Orbeli Institute of Physiology of NAS RA, Yerevan, Armenia) - Compliance environment

**15:50 Welcoming remarks**

**16:15-17:00 Welcome reception**

## DAY 2: October 17<sup>th</sup>, Tuesday

### SESSION I

09:00 COFFEE & SNACKS, REGISTRATION

9:45 **N. Sarvazyan**, /L.A.Orbeli Institute of Physiology/ USA, «Opening remarks»

10:00 **K. Anokhin**, acad. RAS /Institute for Advanced Brain Studies, MSU, Moscow, RF/  
«Imaging Pavlovian conditioning at the cellular level»

10:45 **V. Spangenberg**, PhD /Scientific Center of Zoology and Hydroecology of NAS RA,  
Yerevan, Armenia/ «Visualization of meiosis»

11:15 **A. Kalueff**, PhD, Prof. RAS /St. Petersburg State University, University of Sirius,  
Sochi, RF/ «Zebrafish models in neuroscience: SEEing the future»

11:45 **A. Ovanoglyan**, /Orbeli Institute of Physiology of NAS RA, Yerevan, Armenia/  
«Hyperspectral Imaging as a tool for avian retinal cones characterization»

### 12:00-13.00 pm Lunch & Poster Session

### SESSION II

13:00 **B. Kramer, PhD** /Poznan University Medical Sciences, Poznan, Poland/ «Visualization  
of stem cells in vivo: general considerations and pitfalls»

13:45 **R. Danilova**, PhD /American University of Armenia, Yerevan, Armenia/ «Advances in  
fMRI research: Unlocking Secrets of the Brain»

14:15 **H. Arestakesyan, PhD** /SMHS, George Washington University, USA/ «Large-field-of-  
view scanning electron microscopy»

14:45 **E. Baidyuk**, PhD /Institute of Cytology of the Russian Academy of Sciences,  
St.Petersburg, RF/ «New metabolic strategies to overcome targeted therapy resistance of lung  
cancer»

### 15:00-15.30 Coffee break, Certificates

### SESSION III

15:30 **Murray H. Loew**, PhD /George Washington University, USA/ «Medical  
Imaging Meets AI: Possibilities and Perils»

16:15 **V. Abashkin** /Institute of Biophysics and Cell Engineering, Minsk, Belarus/  
«siRNA delivery using modified gold & silver nanoparticles»

16:30 Poster contest competition

### 17.00 End of day

## DAY 3: October 18<sup>th</sup>, Wednesday

### SESSION I

10:00 **M. Firsov**, acad RAS /Institute of Evolutionary Physiology & Biochemistry after Sechenov of RAS, St. Petersburg, RF/ «Fast response of cAMP to light stimulation»

10:45 **A. Voskanyan**, PhD /Orbeli Institute of Physiology of NAS RA, Yerevan, Armenia/ «Physiologically active substances – research and application in translational science»

11:15 **A. Sargsyan**, PhD /Orbeli Institute of Physiology of NAS RA, Yerevan, Armenia/ « A new interactive software tool for automated detection of absence seizures in human EEG»

11:45 **G. Kirakosyan**, PhD /Orbeli Institute of Physiology of NAS RA, Yerevan, Armenia/ «Development of Technology for Small Scale Production of Albumin and Normal Immunoglobulin Preparations from Human Blood Plasma: Obtaining Experimental Samples»

### 12.00:13.30pm Lunch & Poster Session

### SESSION II

13:30 **M. Buniatyan & G. Mkrtchyan** (The House-Museum of Orbeli brothers, Tsaghkadzor)

13:45 **P. Musienko**, PhD / Sirius University of Science and Technology, Institute of Translational Biomedicine, St. Petersburg State University, RF/ "Spinal and brainstem integrative control of posture and locomotion"

14:15 **A. Khachunts**, PhD, /Orbeli Institute of Physiology of NAS RA, Yerevan, Armenia/ «SFCO Vibro-acoustic Sensors a Sensitive Tool for Investigations in Behavioral Physiology»

14:45 **V. Khachatryan**, PhD /Astghik Medical Center & Orbeli Institute of Physiology of NAS RA, Yerevan, Armenia/ «Predictive Value of CT Brain Perfusion Studies in Acute Ischemic Infarct»

### 15:00-15.30 Coffee break

### SESSION III

15:30 **R. Petrosyan**, PhD / AUA & Orbeli Institute of Physiology of NAS RA, Yerevan, Armenia/ «DNA base stacking energies: still a mystery after 70 years»

16:00 **N. Ayvazyan**, PhD /Orbeli Institute of Physiology of NAS RA, Yerevan, Armenia / «ABO blood group: the neglected player in toxinology and beyond»

16:25 **V. Grigoryan** /Orbeli Institute of Physiology of NAS RA, Yerevan, Armenia / «Refining the methods for nerve regeneration»

16:40 **Shipilov V.N.**, PhD /Institute of Evolutionary Physiology & Biochemistry after Sechenov of RAS, St. Petersburg, RF/ «Towards a unified platform for biovisualization at the Shared research facility of the Sechenov institute of evolutionary physiology and biochemistry RAS»

17:00 Round Table: «HOW TO PROMOTE SCIENCE IN THE REGION AMIDST CONTEMPORARY CHALLENGES»

17:30 Award ceremony of poster and image competition

18:00 Closing remarks

**DAY 4: October19<sup>th</sup>, Thursday**

**Networking & Social Program**