

DAILY PROGRAM

Aug 17, 2022, WEDNESDAY

Breakfast time

9.00 – 9.45

OPENING CEREMONY

Echoes and professional greetings to the Third Summer School and Quiz of Pathophysiology in Dubrovnik.

Zdenko Kovač. Short introduction into School's profile and biomedical complexity issues.

9.45 – 10.30

Boris Martinac. A tandem of Piezo1 and TRPM4 ion channels initiate cardiac hypertrophic signaling in response to pressure overload.

Head of Mechanosensory Biophysics Laboratory, Victor Chang Cardiac Research Institute Darlinghurst, Australia

Coffee time

11.00 – 11.45

Yoshihiro Ishikawa. Pathophysiology, physiology, and their clinical understanding.

Cardiovascular Research Institute, Yokohama City University Graduate School of Medicine, Yokohama, Japan

11.45 – 12.30

Gen Suzuki. Thyroid cancer after the Fukushima Dai-ichi Nuclear Power Station (FDNPS) accident in Japan in 2011.

International University of Health and Welfare Clinic, Tochigi, Japan

Lunch time

13.30 – 13.55

Artem Gregorian. Multiple vectors driving the development of pathophysiology: global trends and local decisions.

Head of Department of Pathophysiology, Yerevan State Medical University, Armenia

13.55 – 14.20

Miroslav Kuba. Pathophysiology is a must in the medical curriculum.

Charles University – Faculty of Medicine in Hradec Králové, Czech Republic

14.20 – 14.45

AUDIOVISUAL FEATURED TOPIC: Hans Selye's approach to physiological complexity – the stress responsiveness.

Coffee time

15.15 – 16.00

John W. Pelley. Achieving Understanding.

AOA Robert J. Glaser Distinguished Teacher Texas Tech Univ. HSC, Lubbock, TX. USA

16.00 – 16.40

AUDIOVISUAL FEATURED TOPIC: Concepts of complexity and complexity science.

17.00 – 18.00

LEISURE ACTIVITIES:

Visit to Dominican monastery.

Museum, Gallery, Pharmacy, Library and Medical Books and unique discoveries of Professor Stjepan Krasić, O.P

Aug 18, 2022, THURSDAY

Breakfast time

9.00 – 9.45

Jean-Pierre Changeux. On the hominization of the brain: a connectomic hypothesis.

Institute Pasteur Professor emeritus of neuroscience, Honorary President of the Neuroscience Department - Paris France, and, International Faculty at the Kavli International Faculty for Brain and Mind, University of California, San Diego, USA

9.45 – 10.30

Miro Jakovljević. Clinical Empathy as Background of Good Clinical Practice.

Croatian Institute for Research and Education on Mental Health, School of Medicine, University of Zagreb, Croatia

Coffee time

11.00 – 11.45

Yehuda Shoenfeld. Autoimmune autonomic nervous system imbalance.

Professor Emeritus, Tel Aviv University Zabludowicz Center for Autoimmune Diseases, Sheba Medical Center Tel-Hashomer, Israel, Past Incumbent of the Laura Schwarz-Kipp Chair for Research of Autoimmune Diseases, Tel-Aviv University, Israel

11.45 – 12.30

Mami Noda. Modulation of endocrine system by hydrogen gas.

Laboratory of Pathophysiology, Graduate School of Pharmaceutical Sciences Kyushu University, Maidashi, Higashi-ku, Fukuoka, Japan

Lunch time

13.30 – 14.15

Olga Pechanova. Use of polymeric nanoparticles in targeted therapy of hypertension and hyperlipidemia.

Institute of Normal and Pathological Physiology, Centre of Experimental Medicine, Slovak Academy of Sciences, Bratislava

14.15 – 15.00

Leo Luznik. Overcoming the HLA barrier to hematopoietic stem cell transplants.

Professor of Oncology and Immunology; Johns Hopkins University and Hospital, Baltimore, USA

Coffee time

15.30 – 15.55

Dražen Belina. Sudden death of young athletes.

Department of Heart Surgery, National and University Hospital Centre KBC Zagreb, Rebro, Croatia

16.20 – 16.35

AUDIOVISUAL FEATURED TOPIC: A complexity of mind – body physiological interplays.

17.00

LEISURE ACTIVITIES:

Swimming at the Danče Beach.

8-minute walk from the school's venue

Aug 19, 2022, FRIDAY

Breakfast time

9.00 – 9.45 **Bojan Jelaković. Hypertension – silent killer worldwide number one.**
School of Medicine, University of Zagreb, National and University Hospital Centre Hospital KBC Zagreb, Rebro, Department of Nephology, Croatian Academy of Sciences and Arts, Zagreb, Croatia

9.45 – 10.30 **Ioana Mozos. Early vascular aging in hypertension.**
"Victor Babes" University of Medicine and Pharmacy, Department of Functional Sciences and Pathophysiology Discipline Timisoara, Romania

Coffee time

10.30 – 12.30 **QUIZ IN PATHOPHYSIOLOGY: Genomic aspects of etiopathogenesis**
WRITTEN TEST

Lunch time

13.30 – 14.15 **Liliana G. Bianciotti. Atrial Natriuretic Peptide in pancreatic physiology and pathophysiology.**
Pathophysiology Professor Institute of Immunology, Genetics and Metabolism INIGEM-UBA-CONICET School of Pharmacy and Biochemistry University of Buenos Aires, Argentina

14.15 – 15.00 **Željko Bošnjak. Use of stem cells in human disease.**
Professor, Departments of Medicine and Physiology, Medical College of Wisconsin, Milwaukee Wisconsin, USA

Coffee time

15.30 – 15.55 **Qendresa Beqiraj. Mechanisms of bronchopulmonary dysplasia in the experimental rat model.**
University of Prishtina, Faculty of Medicine, Department of Pathophysiology, Pediatric Clinic - University Clinical Center of Kosovo, Prishtina, Kosova

15.55 – 16.20 **Siniša Čikić. Omics analyses of blood-brain barrier: Mitochondria perspective.**
Postdoctoral Research Fellow; Tulane University, School of Medicine, Department of Pharmacology, New Orleans, LA, USA

16.20 – 16.35 **AUDIOVISUAL FEATURED TOPIC: Big data in biomedicine – a bewildering source of complexity.**

17.30 **LEISURE ACTIVITIES: Serpentine climbing to the mountain Srđ.**
Panoramic city views, fortress Imperial, a round-table of impressions at the amphitheater

Aug 20, 2022, SATURDAY

Breakfast time

9.00 – 9.45 **Ivan Damjanov. Why do we need examinations in medical school? Written**

and oral exams and standardized multiple-choice tests.

Emeritus Professor of Pathology. The University of Kansas School of Medicine, Kansas City, KS, USA

9.45 – 10.10 **Valentina Kunić. Positive hydrostatic pressure of Trendelenburg position improves the brain sinking syndrome (Clinical case study).**

MD-General practitioner, Outpatient clinic Kapela, Bjelovar-Bilogora County Health Center, Bjelovar, Croatia

10.10 – 10.35 **Zrinka Pagon Belina. Fever in a newborn child.**

Medical director, World Care Middle Europe Ltd, Department of pediatrics, University Hospital KBC Zagreb, Rebro, Croatia

Coffee time

11.00 – 11.25 **Hwee Ming Cheng. The Physiology Quiz Coronated Family.**

Department of Physiology, Faculty of Medicine, University Malaya Kuala Lumpur Malaysia

11.25 – 12.30 **QUIZ IN PATHOPHYSIOLOGY: Genomic aspects of etiopathogenesis.**
PUBLIC ORAL COMPETITION

Lunch time

LEISURE ACTIVITIES:

Visit to the Island of Lokrum.

Recommended spots: Ruins of Benedictine monastery, Botanical gardens, Fort Royal, Lokrum Dead Sea, beaches.

Aug 21, 2022, SUNDAY

Breakfast time

9.00 – 9.45 **Slobodan Vukičević. Bone Morphogenetic Proteins: Growth and differentiation factors in regeneration of organs.**

Laboratory for mineralized tissues, Centre for translational and clinical research, University of Zagreb School of Medicine; Croatian Academy of Sciences and Arts, Zagreb, Croatia

9.45- 10.30 **Miroslav Radman. Biological basis of aging and age-related diseases: a proteomic viewpoint.**

Mediterranean Institute for Life Sciences (MedILS), Split, Croatia and INSERM U1001, Université René Descartes-Paris-5, Faculté de Médecine., Paris, France

Coffee time

11.00 – 11.40 **AUDIOVISUAL FEATURED TOPIC: To what extent artificial intelligence grasps and resolves the issue of biomedical complexity?**

11.40 – 12.30 **CLOSING CEREMONY**

Lunch time