

# PROGRAMME AT A GLANCE

## SEPTEMBER 5, 2018

16:00 – 20:00 **Registration**

17:30 – 18:00 **Opening**

18:00-19:00 **Keynote Lecture**

19:15-21:00 **Welcome Session**

## SEPTEMBER 6, 2018

08:00 – 18:30 **Registration**

### 08:30-10:30 Symposium

Redox regulation in pathophysiology of cardiovascular and neurodegenerative diseases

### 08:30-10:30 Symposium

Translational neuroscience of mental disorders

### 08:30-10:30 Clinical Symposium

Cardiology: from bench to bedside

10:30-11:00 **Coffee Break**

11:00 – 12:20 **Plenary Session 1**

12:20-13:30 **Lunch Break**

### 13:30-15:30 Symposium

Genetic and nutritional factors in pathophysiology - Redox signalling

### 13:30-15:30 Symposium

Pathophysiology of intra- & intercellular regulation (part 1)

### 13:30-15:30 Clinical Symposium

New frontiers around psychopathology

15:30-16:00 **Coffee**

15:30 -16:30 **Poster Sessions A1, A2, B1, B2**

### 16:30-18:30 Symposium

Metabolic syndrome and cardiovascular risk

### 16:30-18:30 Symposium

Pathophysiology of intra- & intercellular regulation (part 2)

### 16:30-18:30 Clinical Symposium

Autism spectrum disorders – targeting pathomechanisms

18:30 -19:30 **ISP Committee Meeting**

## SEPTEMBER 7, 2018

08:00 – 17:00 **Registration**

### 08:30-10:30 Symposium

Pathophysiological mechanisms of experimental hypertension

### 08:30-10:30 Oral Presentations

Neuropsychiatric disorders

10:30-11:00 **Coffee Break**

11:00 – 12:20 **Plenary Session 2**

12:20-13:30 **Lunch Break**

### 13:30-15:30 Symposium

Vascular damage: novel mechanisms and therapeutic opportunities

### 13:30-15:30 Oral Presentations

Food supplements in disease prevention and treatment

15:30-16:00 **Coffee**

15:30 -16:30 **Poster Sessions C1, C2, C3, D**

17:15 **Walking tour**

19:30 – 22:30 **Gala Dinner**

## SEPTEMBER 8, 2018

08:00 – 12:00 **Registration**

### 08:30-10:30 Symposium

Chronodisruption and life style disease

### 08:30-10:30 Oral Presentations

Gastrotransmitters, neurotransmitters and peptides in diseased states

### 08:30-10:30 Oral Presentations

Teaching in pathophysiology

10:30-11:00 **Coffee**

10:30-11:30 **Poster Sessions E1, E2, E3**

11:30-12:00 **Closing Ceremony**

# DETAILED SCIENTIFIC PROGRAMME

## Wednesday, September 5, 2018

18:00–19:00, KEYNOTE LECTURE, Plenary Hall

**Chairperson:** Olga Pechanova, Slovakia

**Speaker:** Pavel Hamet, Canada

**Lecture title:** Relative importance of clinical vs. genomic risk determinants in pathophysiology of diabetes complications

## Thursday, September 6, 2018

8:30–10:30, SYMPOSIUM, Hall 1

### REDOX REGULATION IN PATHOPHYSIOLOGY OF CARDIOVASCULAR AND NEURODEGENERATIVE DISEASES

**Chairperson 1:** Samuel H. H. Chan, Taiwan

**Chairperson 2:** Ima Dovinova, Slovakia

**Speaker 1:** Julie Y. H. Chan, Taiwan (30 minutes)

**Lecture title:** Tissue oxidative stress in the programming of organ injury associated with metabolic syndrome of developmental origin

**Speaker 2:** Samuel H. H. Chan, Taiwan (30 minutes)

**Lecture title:** Brain-derived neurotrophic factor (BDNF) as an endogenous antioxidant in animal models of disease

**Speaker 3:** Vittorio Calabrese, Italy (30 minutes)

**Lecture title:** Effects of *Coriolus versicolor* treatment on oxidative stress, redox homeostasis and cellular stress response in MÈNIÈRE'S DISEASE. A rationale for therapeutic intervention in neuroinflammation and antineurodegeneration.

**Speaker 4:** Ima Dovinova, Slovakia (15 minutes)

**Lecture title:** Aberrant redox regulation and risk markers development in cardiovascular diseases

**Speaker 5:** Guliz Armagan, Turkey (15 minutes)

**Lecture title:** Regulation of Nrf2/ARE pathway through GSK-3 $\beta$  inhibition in neurodegeneration

8:30–10:30, SYMPOSIUM, Hall 2

### TRANSLATIONAL NEUROSCIENCE OF MENTAL DISORDERS\*

**Chairperson 1:** Jianzhi Wang, China

**Chairperson 2:** Igor Riečanský, Slovakia

**Speaker 1:** Jianzhi Wang, China (30 minutes)

**Lecture title:** Identification of pBLA-vCA1 circuit and its role in emotion-modulated spatial memory

**Speaker 2:** Gabor Csukly, Hungary (30 minutes)

**Lecture title:** EEG markers of early cognitive decline in mild cognitive impairment

**Speaker 3:** Jiri Horacek, Czech Republic (30 minutes)

**Lecture title:** The translational approach to modelling schizophrenia: pharmacological studies in humans and rats

**Speaker 4:** Igor Riečanský, Slovakia (15 minutes)

**Lecture title:** An emerging role of nitric oxide in schizophrenia

**Speaker 5:** Daniela Jezova, Slovakia (15 minutes)

**Lecture title:** Potential pathophysiological role of aldosterone in major depressive disorder

\* This symposium is supported by the Slovak Research and Development Agency (grant number APVV-14-0840).

8:30–10:30, CLINICAL SYMPOSIUM, Hall 3

### CARDIOLOGY: FROM BENCH TO BEDSIDE

**Chairperson 1:** Robert Mistrik, Slovakia

**Chairperson 2:** Ludovít Paulis, Slovakia

**Speaker 1:** Fedor Simko, Slovakia (30 minutes)

**Lecture title:** Anticoagulation independent effects of oral anticoagulants: On the search for the vasculoprotective effect of rivaroxaban (sponsored by Bayer, spol. s r. o.)

**Speaker 2:** Ludovít Paulis, Slovakia (30 minutes)

**Lecture title:** Means for experimental and clinical RAAS profile modulation

**Speaker 3:** Oliver Domenig, Austria (30 minutes)

**Lecture title:** Angiotensin based biomarkers for molecular profiling and drug efficacy monitoring in hypertension (sponsored by Attoquant Diagnostics GmbH)

**Speaker 4:** Robert Mistrik, Slovakia (30 minutes)

**Lecture title:** Introduction to a comprehensively annotated LC/MSn database: application for drug development, research and treatment diagnosis (20 minutes)

## 11:00–12:20, PLENARY SESSION, Plenary Hall

**Chairperson:** Julie Y. H. Chan, Taiwan

**Speaker 1:** Rhian M. Touyz, United Kingdom (40 minutes)

**Lecture title:** Molecular and vascular pathophysiology of hypertension

**Speaker 2:** Samuel H.H. Chan, Taiwan (40 minutes)

**Lecture title:** Understanding brain death: Insights from translational medicine

## 13:30–15:30, SYMPOSIUM, Hall 1

### GENETIC AND NUTRITIONAL FACTORS IN PATHOPHYSIOLOGY - REDOX SIGNALING

**Chairperson 1:** Cesar G. Fraga, Argentina

**Chairperson 2:** Joao Laranjinha, Portugal

**Speaker 1:** Enrique Cadenas, USA (30 minutes)

**Lecture title:** Mitochondrion-centric approach to brain aging and Alzheimer's

**Speaker 2:** Patricia I. Oteiza, USA (30 minutes)

**Lecture title:** Zinc and redox signaling in brain development

**Speaker 3:** Joao Laranjinha, Portugal (30 minutes)

**Lecture title:** Nitric oxide-mediated mechanisms in Alzheimer's disease

**Speaker 4:** Giuseppe Valacci, USA (30 minutes)

**Lecture title:** Redox signaling in Rett syndrome

## 13:30–15:30, SYMPOSIUM, Hall 2

### PATHOPHYSIOLOGY OF INTRA- & INTERCELLULAR REGULATION I

**Chairperson 1:** Anatolii Kubyskhin, Russian Federation

**Chairperson 2:** Johanne Tremblay, Canada

**Speaker 1:** Johanne Tremblay, Canada (30 minutes)

**Lecture title:** Role of COMMD5 in cancer as a regulator of endosomal trafficking and EGFR transport and activity

**Speaker 2:** Pavol Janega, Slovakia (30 minutes)

**Lecture title:** Current research of regulatory pathways provides new molecular therapeutic targets improving the prognosis of patients with malignant melanoma

**Speaker 3:** Anatolii Kubyskhin, Russian Federation (20 minutes)

**Lecture title:** Multipotent mesenchymal bone marrow-derived stem cells and apoptotic bodies of cardiomyocytes in process of myocardium reparative morphogenesis

**Speaker 4:** Irina Guzhova, Russian Federation (20 minutes)

**Lecture title:** Chaperones as molecular targets in oncological and neurodegenerative diseases

**Speaker 5:** Boris Margulis, Russian Federation (20 minutes)

**Lecture title:** Prion-like intercellularly transmitted pathologies

## 13:30–15:30, CLINICAL SYMPOSIUM, Hall 3

### NEW FRONTIERS AROUND PSYCHOPATHOLOGY

**Chairperson 1:** Spiridione Masaraki, Italy

**Chairperson 2:** Yuko Urakami, Japan

**Speaker 1:** Andrea Crocetti, Italy (30 minutes)

**Lecture title:** Tinnitus composite discomfort

**Speaker 2:** Federico Colombo, Italy (30 minutes)

**Lecture title:** Gambling Disorder: Personality characteristics in a clinical sample

**Speaker 3:** Roberto Truzoli, Italy (30 minutes)

**Lecture title:** A comparison between group cognitive behavioural therapy with and without text messaging (SMS) to support compliance in depressed and anxious outpatients

**Speaker 4:** Caterina Vigano, Italy (15 minutes)

**Lecture title:** Psychogenetic dysphagia integrated approach for diagnosis and treatment

**Speaker 5:** Yuko Urakami Japan (15 minutes)

**Lecture title:** Music training is associated with magnetoencephalographic gamma- and alpha-band oscillation binding with attention and consciousness

## 15:30–16:30, POSTER SESSIONS A1, A2, B1, B2

### SESSION A1: BRAIN AND BEHAVIOURAL DISORDERS I

**Chairpersons A1:** Natasa Hlavacova, Filip Tichanek

### SESSION A2: BRAIN AND BEHAVIOURAL DISORDERS II

**Chairpersons A2:** Julia O. Fedotova, Fedor Jagla

### SESSION B1: RENAL AND GASTROINTESTINAL DISORDERS

**Chairpersons B1:** Jana Radosinska, Libor Kopkan

### SESSION B2: RESPIRATORY DISORDERS

**Chairpersons B2:** Alina E. Parvu, Jozef Torok



16:30–18:30, SYMPOSIUM, Hall 1

### METABOLIC SYNDROME AND CARDIOVASCULAR RISK

**Chairperson 1:** Satomi Kagota, Japan

**Chairperson 2:** Olga Pechanova, Slovakia

**Speaker 1:** Olga Pechanova, Slovakia (30 minutes)

**Lecture title:** Experimental metabolic syndrome: standard and alternative therapies

**Speaker 2:** Satomi Kagota, Japan (30 minutes)

**Lecture title:** Compensatory effects of perivascular adipose tissue on vasodilation differ

by vascular site and age in rats with metabolic syndrome

**Speaker 3:** Peter Ferdinandy, Hungary (30 minutes)

**Lecture title:** Why do we still not have cardioprotective drugs on the market? Importance of risk factors and unbiased ways to identify drug targets

**Speaker 4:** Martina Cebova, Slovakia (15 minutes)

**Lecture title:** The effect of palmitate exposure in utero on systolic and vascular function in mice

**Speaker 5:** Iona Mozos, Romania (15 minutes)

**Lecture title:** Predictors of early arterial aging in patients with high normal blood pressure and hypertension

16:30–18:30, SYMPOSIUM, Hall 2

### PATHOPHYSIOLOGY OF INTRA- & INTERCELLULAR REGULATION II

**Chairperson 1:** Anatolii Kubyshkin, Russian Federation

**Chairperson 2:** Svetlana Gusakova, Russian Federation

**Speaker 1:** Alexandr Kazimirsky, Russian Federation (20 minutes)

**Lecture title:** Features of the immunopathogenesis of atopic diseases: from expression of surface markers of lymphocytes to immunopathogenesis

**Speaker 2:** Svetlana Gusakova, Russian Federation (20 minutes)

**Lecture title:** Contractile activity of a pulmonary artery at volume change of smooth muscles cells

**Speaker 3:** Irina Bryndina, Russian Federation (20 minutes)

**Lecture title:** Sphingolipid signaling in disused skeletal muscle

**Speaker 4:** Iryna Fomochkina, Russian Federation (15 minutes)

**Lecture title:** Intercellular interactions in the endometrial hyperplasia-related inflammation development

**Speaker 5:** Leonid Kapilevich, Russian Federation (15 minutes)

**Lecture title:** General trends of myokines production under physical exercises of a different types and intensity

**Speaker 6:** Han Xiao, China (15 minutes)

Sympathetic stress and cardiac injuries

16:30–18:30, CLINICAL SYMPOSIUM, Hall 3

### AUTISM SPECTRUM DISORDERS – TARGETING PATHOMECHANISMS

**Chairperson 1:** Daniela Ostatnikova, Slovakia

**Chairperson 2:** Katarina Babinska, Slovakia

**Speaker 1:** Silvia Hnilicova, Slovakia (30 minutes)

**Lecture title:** Autism etiology, screening and diagnosis

**Speaker 2:** Daniela Ostatnikova, Slovakia (30 minutes)

**Lecture title:** The role of steroids in autism pathogenesis

**Speaker 3:** Katarina Babinska, Slovakia (30 minutes)

**Lecture title:** Inflammation in pathogenesis of autism

**Speaker 4:** Aleksandra Tomova, Slovakia (30 minutes)

**Lecture title:** The gut microbiota and autism

Friday, September 7, 2018

8:30–10:30, SYMPOSIUM, Hall 1

### PATHOPHYSIOLOGICAL MECHANISMS OF EXPERIMENTAL HYPERTENSION

**Chairperson 1:** Ivana Vaneckova, Czech Republic

**Chairperson 2:** Iveta Bernatova, Slovakia

**Speaker 1:** Ivana Vaneckova, Czech Republic (30 minutes)

**Lecture title:** Chronic kidney disease in Ren-2 transgenic rats and its treatment with endothelin receptor antagonists

**Speaker 2:** Elzbieta Kompanowska Jezierska, Poland (30 minutes)

**Lecture title:** Effects of chronic blockade of chymostatin-sensitive enzymes in experimental hypertension

**Speaker 3:** Libor Kopkan, Czech Republic (30 minutes)

**Lecture title:** Pathophysiology of congestive heart failure in experimental hypertensive models

**Speaker 4:** Angelika Puzserova, Slovakia (30 minutes)

**Lecture title:** Endothelial aging in spontaneously hypertensive rats

8:30–10:30, ORAL SESSION, Hall 2

### NEUROPSYCHIATRIC DISORDERS

**Chairperson 1:** Daniela Jezova, Slovakia

**Chairperson 2:** Artem Grigoryan, Armenia

**Speaker 1:** Artem Grigoryan et al., Armenia (15 minutes)

**Presentation title:** The behavioral characteristics of hypokinetic syndrome in rats

**Speaker 2:** Tomas Hromadka et al., Slovakia (15 minutes)

**Presentation title:** Systems approaches in neurodegeneration: Linking molecular pathology with cognitive deficits in Alzheimer's disease

**Speaker 3:** Filip Tichanek et al., Czech Republic (15 minutes)

**Presentation title:** Pathological phenotype of mouse model of rapid-onset spinocerebellar ataxia type 1

**Speaker 4:** Eszter Bogi et al., Slovakia (15 minutes)

**Presentation title:** How can maternal stress and/or antidepressants affect behavior of rat offspring?

**Speaker 5:** Natasa Hlavacova et al., Slovakia (15 minutes)

**Presentation title:** Patients with atopy exhibited attenuated neuroendocrine response during psychosocial stress

**Speaker 6:** Leonid P. Churilov et al., Russian Federation (15 minutes)

**Presentation title:** On the Pathogenesis of Psychic Disorders in Hashimoto's Thyroiditis

**Speaker 7:** Julia O. Fedotova et al., Russian Federation (15 minutes)

**Presentation title:** Effects of vitamin D3 treatment on anxiety-like behavior of the middle-aged female rats after long-term ovariectomy (15 minutes)

**Speaker 8:** Andrea Mestanikova et al., Slovakia (15 minutes)

**Presentation title:** Pupillometry in adolescent depression

11:00–12:20, PLENARY SESSION, Plenary hall

**Chairperson:** Yoshihiro Ishikawa, Japan

**Speaker 1:** Boris V. Krylov Russian Federation (40 minutes)

**Lecture title:** Pathological pain: can it be safely cured?

**Speaker 2:** Ming Xu, China (40 minutes)

**Lecture title:** G-quadruplex and heart fiction

13:30–15:30, SYMPOSIUM, Hall 1

### VASCULAR DAMAGE, NOVEL MECHANISMS AND THERAPEUTIC OPPORTUNITIES

**Chairperson 1:** Concepcion Peiro, Spain

**Chairperson 2:** Silvia Arribas, Spain

**Speaker 1:** Concepcion Peiro, Spain (30 minutes)

**Lecture title:** Diabetes, adipokines and vascular damage: which role for interleukin-1 $\beta$ ?

**Speaker 2:** Silvia Arribas, Spain (30 minutes)

**Lecture title:** Vascular remodelling: therapeutic targets and opportunity windows

**Speaker 3:** Maria Bloksgaard, Denmark (30 minutes)

**Lecture title:** Determinants of vascular smooth muscle contractility in resistance arteries from patients with residual cardiovascular disease

**Speaker 4:** Yoshihiro Ishikawa, Japan (15 minutes)

**Lecture title:** Vascular graft made from cultured cells

**Speaker 5:** Silvia Liskova, Slovakia (15 minutes)

**Lecture title:** Comparison of Ca<sup>2+</sup>-dependent Cl<sup>-</sup> channels blockade and endothelium-derived constricting factor in norepinephrine-induced contraction of rat femoral artery



13:30–15:30, ORAL PRESENTATIONS, Hall 2

**FOOD SUPPLEMENTS IN DISEASE PREVENTION AND TREATMENT**

**Chairperson 1:** Patricia I. Oteiza, USA

**Chairperson 2:** Vittorio Calabrese, Italy

**Speaker 1:** Iveta Bernatova et al., Slovakia (20 minutes)

**Presentation title:** Involvement of calcium channels in (-)-epicatechin-induced vasorelaxation

**Speaker 2:** Gabriele Di Rosa et al., Italy, Germany (20 minutes)

**Presentation title:** Olive oil polyphenols show beneficial effects in two *C. elegans* Parkinson models

**Speaker 3:** Alina E. Parvu et al., Romania (15 minutes)

**Presentation title:** Polyphenolic compounds, antioxidant and cardioprotective effects of pomace extracts from Feteasca Neagra and Pinot cultivars

**Speaker 4:** Monika Bartekova et al., Slovakia (15 minutes)

**Presentation title:** Cardioprotective effects of quercetin against ischemia-reperfusion injury in isolated juvenile and adult rat hearts

**Speaker 5:** Lyudmila U. Belyaeva et al., Belarus (15 minutes)

**Presentation title:** Resveratrol attenuates NO-dependent coronary vessels tone dysregulation and modifies sirtuin-1 expression in the myocardium of prenatally stressed rats

**Speaker 6:** Jovana Jeremic et al., Serbia (15 minutes)

**Presentation title:** Cardioprotective effects of diallyl trisulfide in a rat model of type-1 diabetes mellitus

**Speaker 7:** Tamara Nikolic Turnic et al., Serbia (15 minutes)

**Lecture title:** Plasma phospholipid fatty acid profile in rats with different degree of diet-induced hyperhomocysteinemia

15:30–16:30, POSTER SESSIONS C1, C2, C3, D

**SESSION C1: ATHEROSCLEROSIS AND VASCULAR DISORDERS**

**Chairpersons C1:** Silvia M. Arribas, Andrea Berenyiova

**SESSION C2: HIGH BLOOD PRESSURE**

**Chairpersons C2:** Elzbieta Kompanowska Jezierska, Sonja Cacanyiiova

**SESSION C3: HEART DISEASES**

**Chairpersons C3:** Irina Guzhova, Monika Bartekova

**SESSION D: TEACHING IN PATHOPHYSIOLOGY**

**Chairpersons D:** Silvia Hnilicova, Peter F. Litvitskiy

**Saturday, September 8, 2018**

8:30–10:30, SYMPOSIUM, Hall 1

**CHRONODISRUPTION AND LIFE STYLE DISEASE**

**Chairperson 1:** Bert van der Horst, The Netherlands

**Chairperson 2:** Michal Zeman, Slovakia

**Speaker 1:** Michal Zeman, Slovakia (30 minutes)

**Lecture title:** Artificial light at night as a risk factor for health

**Speaker 2:** Bert van der Horst, The Netherlands (30 minutes)

**Lecture title:** Impact of circadian disturbance on later life health

**Speaker 3:** Alena Sumova, Czech Republic (30 minutes)

**Lecture title:** Regulation of colonic circadian clock and impact of its disruption

**Speaker 4:** Monika Okuliarova, Slovakia (15 minutes)

**Lecture title:** Effects of light at night on immune cell distribution and their daily rhythms in the circulation and tissues

**Speaker 5:** Kristina Hasakova, Slovakia (15 minutes)

**Lecture title:** Expression of clock gene in colorectal cancer patients is dependent on tumor location



8:30–10:30, ORAL SESSION, Hall 2

### GASSOTRANSMITTERS, NEUROTRANSMITTERS AND PEPTIDES IN DISEASED STATES

**Chairperson 1:** Josef Zicha, Czech Republic

**Chairperson 2:** Vladimir Lj. Jakovlevic, Serbia

**Speaker 1:** Josef Zicha et al., Czech Republic (20 minutes)

**Presentation title:** Is Angiotensin II-Dependent Hypertension in Ren-2 Transgenic Rats Driven by Central Sympathoexcitation?

**Speaker 2:** Vladimir Lj. Jakovlevic et al., Serbia (20 minutes)

**Presentation title:** The effects of potassium cyanide on functional recovery of isolated rat heart after ischemia and reperfusion: role of oxidative stress

**Speaker 3:** Jozef Torok and Anna Zemancikova (15 minutes)

**Presentation title:** Attenuation of anticontractile effect of perivascular adipose tissue might contribute to the development of hypertension

**Speaker 4:** Sona Cacanyiova et al., Slovakia (15 minutes)

**Presentation title:** The interaction of hydrogen sulfide with NO-synthase and NO donors triggers specific vasoactive effects in isolated arteries of rats and patients with arterial hypertension

**Speaker 5:** Sergio Modafferi et al., Italy (15 minutes)

**Presentation title:** Hydrogen sulfide and its interaction with carnosine metabolism

**Speaker 6:** Hongzhu Li et al., China, Canada (15 minutes)

**Presentation title:** Exogenous H<sub>2</sub>S contributes to recovery of ischemic post-conditioning-induced cardioprotection via increase of autophagy in the aged hearts

**Speaker 7:** Andrea Bereniyova, Slovakia (15 minutes)

**Presentation title:** Age and increased blood pressure modulated the nitric oxide and hydrogen sulphide signalisations in spontaneously hypertensive rats

8:30–10:30, ORAL PRESENTATIONS, Hall 3

### TEACHING IN PATHOPHYSIOLOGY

**Chairperson 1:** Angelika Puzserova, Slovakia

**Chairperson 2:** Georgi M. Sarov, Bulgaria

**Speaker 1:** Zdenko Kovac, Croatia (30 minutes)

**Presentation title:** Integrative education and cognitive tools for tomorrow medicine: Pathophysiological reactivity outlined via algorithmic networks and etiopathogenetic clusters fits the criteria of graph theory

**Speaker 2:** Georgi M. Sarov et al., Bulgaria (20 minutes)

**Presentation title:** The role of pathophysiology in building medical knowledge

**Speaker 3:** Silvia Hnilicova et al., Slovakia (20 minutes)

**Presentation title:** Simulation-Based Learning in Human Physiology and Pathophysiology at Comenius University

**Speaker 4:** Artem Grigoryan et al., Armenia (20 minutes)

**Presentation title:** “Becoming a cancer” board game as a form of a practical class in pathophysiology

**Speaker 5:** Peter F. Litvitskiy, Russian Federation (20 minutes)

**Presentation title:** Systemic multilevel teaching of pathophysiology in a medical school

10:30–11:30, POSTER SESSIONS E1, E2, E3

#### SESSION E1: INFLAMMATION

**Chairpersons E1:** Tamara Nikolic, Anna Vasku

#### SESSION E2: CANCER

**Chairpersons E2:** Johanne Tremblay, Han Xiao

#### SESSION E3: METABOLIC DISORDERS

**Chairpersons E3:** Vladimir Zivkovic, Martina Cebova

