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28th CONGRESS OF THE POLISH PHYSIOLOGICAL SOCIETY

September 15–17, 2021
(ONLINE)
GDANSK, POLAND

BOOK OF PROGRAMME AND ABSTRACTS

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PREFACE

Dear Friends and Colleagues,

This abstract book published as a supplement of the Journal of Physiology and Pharmacology includes program, schedule and abstracts presented at the 28th Congress of the Polish Physiological Society, September 15 -17, 2021. The Congress is organized by the local Organizing Committee at Medical University of Gdansk and University of Gdansk on behalf of the Council of the Polish Physiological Society and Polish Academy of Sciences. Due to COVID-19 pandemic the Congress is held for the first time in a virtual format.

Since 1937, the meetings of the Polish Physiological Society have become a recognized forum for the presentation of achievements, new scientific and creative concepts, discussions related to the functioning of human and animal body. The scientific program of the 28th Congress of the Polish Physiological Society consists of the plenary state of art lectures by invited top experts, short lectures based on original research studies and e-poster presentations.

Fifteen thematic sessions cover most fields of modern physiology and pathophysiology, from the single molecule level to the whole organism regulatory interactions. The Congress features over 250 lectures and presentations by more than 750 Authors representing 32 countries from five continents.

We would like to thank all Authors for sharing their scientific knowledge and passion, the Scientific Committee of the Congress and the Reviewers for the invaluable feedback they provided in a short time as well as the editorial staff of the Journal Physiology and Pharmacology.

Best regards,

GUEST EDITORS:

Tomasz Wierzba, Pawel Musial, Stanislaw Zajaczkowski

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28th CONGRESS OF THE POLISH PHYSIOLOGICAL SOCIETY CONGRESS PROGRAMME

Wednesday (September 15, 2021)

- 9:00 – 9:45 (*virtual stream A*) Opening ceremony
- 9:45 – 10:30 (*virtual stream A*) Opening lecture – **SYMPATHETIC OVERACTIVITY AND CARDIOVASCULAR DISEASE – THE ISSUE IS MORE COMPLEX THAN WE THOUGHT**
TRANSCRIPTOMIC STUDIES FOR MALE INFERTILITY DIAGNOSIS AND THERAPY MONITORING.
Prof. Krzysztof Narkiewicz
(*Department of Hypertension and Diabetology, Medical University of Gdansk, Poland*).
- 10:30 – 11:55 (*virtual stream A*) Session I – open lectures and oral presentations
MUSCLE FUNCTION/ MUSCLE EXERCISE
- 10:50 – 13:20 (*virtual stream B*) **Session XII** – open lectures and oral presentations
GASTROINTESTINAL AND LIVER PHYSIOLOGY AND PATHOPHYSIOLOGY, PANCREAS AND LIVER.
- 12:15 – 15:10 (*virtual stream A*) **Session IV** – open lectures and oral presentations
FATIGUE. ADAPTATION TO ENVIRONMENT. THERMOREGULATION
- 13:20 – 14:05 (*virtual stream B*) **Special session I** (AnimaLab)
PHYSIOLOGY COMPLEXITY AND ITS TECHNOLOGY. EXAMPLES FROM MOTOR FUNCTION TO CIRCADIAN RHYTHMS BY UGO BASILE, ITALY.
- 14:15 – 17:45 (*virtual stream B*) **Session IX** – open lectures and oral presentations
NEW INSIGHTS INTO CELLULAR FUNCTIONS
- 15:30 – 17:50 (*virtual stream A*) **Session III** – open lectures and oral presentations
BIOLOGICAL RHYTHMS. SLEEP

Thursday (September 16, 2021)

- 9:00 – 9:40 (*virtual stream C*) **Special session II** (AnimaLab)
HEART RATE VARIABILITY, TIME DOMAIN AND FREQUENCY DOMAIN ANALYSIS
- 9:00 – 10:10 (*virtual stream A*) **Session VIII** – open lectures and oral presentations
ENDOCRINE REGULATIONS. CONTROL OF BODY WEIGHT
- 9:00 – 13:25 (*virtual stream B*) **Session XI** – open lectures and oral presentations
PHYSIOLOGY OF REPRODUCTION
- 9:10 – 10:05 (*virtual stream D*) **Session I** – interactive poster presentation
MUSCLE FUNCTION/ MUSCLE EXERCISE
- 9:45 – 11:20 (*virtual stream C*) **Session VI** – interactive poster presentations Part I
HEART. CARDIOVASCULAR AND RESPIRATORY REGULATION
- 10:05 – 10:55 (*virtual stream D*) **Session IV** – interactive poster presentations
FATIGUE. ADAPTATION TO ENVIRONMENT. THERMOREGULATION
- 10:15 – 11:20 (*virtual stream A*) **Session XV** – open lectures and oral presentations
MISCELLANEA
- 11:00 – 13:55 (*virtual stream D*) **Session II** – interactive poster presentations
CENTRAL NERVOUS SYSTEM. NEUROPHYSIOLOGY. PLASTICITY OF NEURAL FUNCTION

11:30 – 12:15 (<i>virtual stream C</i>)	Session VIII – interactive poster presentations ENDOCRINE REGULATIONS. CONTROL OF BODY WEIGHT
11:30 – 16:15 (<i>virtual stream A</i>)	Session VI – open lectures and oral presentations HEART. CARDIOVASCULAR AND RESPIRATORY REGULATION
12:25 – 13:00 (<i>virtual stream C</i>)	Session III – interactive poster presentation BIOLOGICAL RHYTHMS. SLEEP
13:30 – 15:25 (<i>virtual stream C</i>)	Session XI – interactive poster presentations PHYSIOLOGY OF REPRODUCTION
13:30 – 13:55 (<i>virtual stream B</i>)	Special session III (AnimaLab) THE USE OF SMALL ANIMAL TELEMETRY IN PHYSIOLOGY
13:55 – 14:15 (<i>virtual stream B</i>)	Special session IV (AnimaLab) NEW APPROACHES TO TEACHING PHYSIOLOGY
14:00 – 15:30 (<i>virtual stream D</i>)	Session XII – interactive poster presentations GASTROINTESTINAL AND LIVER PHYSIOLOGY AND PATHOPHYSIOLOGY, PANCREAS AND LIVER
14:20 – 18:05 (<i>virtual stream B</i>)	Session II – open lectures and oral presentations CENTRAL NERVOUS SYSTEM. NEUROPHYSIOLOGY. PLASTICITY OF NEURAL FUNCTION
15:30 – 16:10 (<i>virtual stream D</i>)	Session IX – interactive poster presentations NEW INSIGHTS INTO CELLULAR FUNCTIONS
15:30 – 16:25 (<i>virtual stream C</i>)	Session VII – interactive poster presentations FUNCTIONS OF BLOOD. HEMOSTASIS
16:30 – 18:00 (<i>virtual stream A</i>)	Session VII – open lectures and oral presentations FUNCTIONS OF BLOOD. HEMOSTASIS
16:30 – 17:30 (<i>virtual stream C</i>)	Session VI – interactive poster presentations Part II HEART. CARDIOVASCULAR AND RESPIRATORY REGULATION

Friday (September 17, 2021)

9:00 – 10:45 (<i>virtual stream A</i>)	Session XIV – open lectures and oral presentations PHYSIOLOGY MEETS ENGINEERING
9:00 – 11:30 (<i>virtual stream B</i>)	Session XIII – open lectures and oral presentations MULTI-OMICS PROSPECTIVES IN PHYSIOLOGY
10:00 – 10:45 (<i>virtual stream C</i>)	Session V – interactive poster presentations BODY FLUID HOMEOSTASIS. RENAL FUNCTIONS
10:45 – 11:05 (<i>virtual stream C</i>)	Session X – interactive poster presentations AGING
11:10 – 13:55 (<i>virtual stream A</i>)	Session X – open lectures and oral presentations AGING
11:05 – 11:55 (<i>virtual stream C</i>)	Session XIV – interactive poster presentations PHYSIOLOGY MEETS ENGINEERING
11:45 – 13:35 (<i>virtual stream B</i>)	Session V – oral presentations BODY FLUID HOMEOSTASIS. RENAL FUNCTIONS
12:00 – 13:05 (<i>virtual stream C</i>)	Session XV – interactive poster presentations MISCELLANEA
14:00 – 14:30	Closing ceremony

Shaded area – interactive poster sessions