

European Physiology Day

Virtual Meeting



12th October 2021

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Welcome

As FEPS President, and on behalf of our Executive Committee, it is my great pleasure to issue a warm welcome to all. We want our European Day of Physiology, to bring physiologists and all those interested in physiology, together for great science, networking, and excitement, as we award prizes.

The day gets off to a great start with parallel sessions for our early career researchers, organized by them, and a session dedicated to teaching physiology, taking a look at what students need and want, organized by Professor Margarethe Geiger. I am delighted that, thanks to our journal *Acta Physiologica*, we will have a Prize lecture from our Rising Star 2021 winner. There will be symposia in the afternoon and then the highlight of the day, the FEPS Lecture, given by Professor Annette Dolphin, UK.

Even without winning a poster or oral communication prize, I believe this will be an exciting day for Physiology in Europe. I look forward to virtually welcoming and meeting many of you at the event.

Susan Wray – President FEPS.

Scientific Program

Central European Time

09:00 - 09:15 Login, Welcome & Opening Session

09:15 - 12:00 **European Young Physiologists' Symposium**

10:00 - 12:00 **FEPS Teaching Symposium**

EYPS Oral Communications

Chairs: **Nina Ullrich & Burak Oymak**

09:15 - 09:30 **Yavuz Yavuz:** *Opioid Modulation of Hypothalamic Arcuate AgRP Neurons in Transgenic Mice.*

09:30 - 09:45 **Giorgia Chinigò:** *TRPM8-Rap1A interaction inhibits prostate cancer cell adhesion and migration.*

09:45 - 10:00 **Sara Ruga:** *Palmitoylethanolamide plays a role in improving the osteogenic balance in an in vitro bone 3D model.*

10:00 - 10:15 **Salvatore Fusco:** *Aberrant protein palmitoylation is critically involved in neurodegeneration and cognitive impairment in mouse model of Alzheimer's disease.*

10:15 - 10:30 **Fatemeh Kermani:** *Reshaping Induced Pluripotent Stem Cell-Derived Cardiomyocytes: Structural Remodeling and Functional Maturation.*

10:30 - 10:45 **Tiziana Romanazzi:** *Bile acids exert a direct effect on dopamine transporter mediated currents.*

10:45 - 11:00 Break

EYPS Poster Communications

11:00 - 11:05 **Alessia Remigante:** *Functional characterization of Kir2.1 channel in an oxidative stress related model of aging neuroglia.*

11:05 - 11:10 **Mattia Musto:** *Activity-dependent synaptic and structural plasticity of cerebellar climbing fibers.*

11:10 - 11:15 **Anemari Horvat:** *Intracellular Ca²⁺ signals are key triggers of aerobic glycolysis in primary astrocytes.*

11:15 - 11:20 **Madelaine M. Audero:** *Acidic microenvironment promotes PDAC cells' selection inducing more aggressive cancer cells: role of Store-Operated Ca²⁺ signals.*

11:20 - 11:25 **Adriana M. Capucho:** *Carotid sinus nerve resection prevents cognitive dysfunction in an animal model of dysmetabolism.*

11:25 - 11:30 **Martina Nazzaro:** *Persistence or reversibility of fructose induced brain alterations after switching to healthy diet.*

11:30 - 11:35 **Mariangela Centrone:** *Vasopressin downregulates AQP3 function via V1aR in human colon HCT8 cells.*

11:35 - 11:40 **Ana Chegão:** *Glycation modulates glutamatergic signalling and exacerbates Parkinson's disease-like phenotypes.*

11:40 - 11:45 **M. Sinem Ethemoglu:** *Effects of AgRP Neurons Activation in the Hypothalamic Arcuate Nucleus on Experimental Epilepsy.*

11:45 - 11:50 **Aoife D. Slyne:** *Preserved Accessory Muscle Function in a Mouse Model of Early Dystrophic Disease.*

11:50 - 12:00 EYPS concluding remarks

FEPS Teaching Symposium: What Do Students Need - What Do Students Want?

Chair: Margarethe Geiger (Medical University of Vienna)

10:00 - 10:30 **Melek Bor Küçükataý** (University of Pamukkale, Turkey): *Demands and requirements of medical students: Turkish experiences.*

10:30 - 11:00 **Giampiero Leanza** (University of Catania, Italy): *Needs and wishes: How I see teaching physiology and how pandemics risk to disrupt it.*

11:00 - 11:30 **Rachel Floyd** (University of Liverpool, UK): Flipped classroom physiology – Challenging our perception of what students want versus what they need.

11:30 - 12:00 **Dörte Symmank** (Medical University Vienna, Austria): The students' perspective.

12:00 - 12:15 Break

12:15 - 13:00 **Acta Physiologica Rising Star Lecture: Riccardo Beltramo** (University of Cambridge)
Neocortical space for the visual midbrain.

Introduction by Pontus Persson (Editor-in-Chief, Acta Physiologica)

Chair: Bill Louch (FEPS Treasurer, University of Oslo)

13:00 - 14:00 Break

Symposia (14:00 - 16:00)

Symposium 1: Novel insights into cellular function during disease

Chairs: **Robert Fenton** (Aarhus University) & **Morag Mansley** (University of St Andrews)

14:00 - 14:30 **Carsten Ehrhardt** (Trinity College Dublin): OCTN1-mediated ergothioneine transport in lung epithelial cells in COPD.

14:30 - 15:00 **Ina Schiessl** (Aarhus University): Tracking the in vivo dynamics of tubular injury and repair over time.

15:00 - 15:30 **Jennifer Pluznick** (Johns Hopkins University): Uncovering a novel role for the G protein-coupled receptor Gpr116 in renal acid secretion.

15:30 - 16:00 **Timo Rieg** (University of South Florida): "Npt2a inhibition for treating impaired phosphate homeostasis in chronic kidney disease.

Symposium 2: A multi-faceted approach for supporting network physiology

Chair: **Danilo Bondi** (Università degli Studi "G. d'Annunzio" Chieti – Pescara)

14:00 – 14:25 **Rossella Rizzo** (Trinity College Dublin): Networks of brain-muscle interactions.

14:25 – 14:45 **Tjeerd Boonstra** (Maastricht University):
Neurophysiological network models of muscle interactions.

14:45 – 15:05 **Natàlia Balagué** (INEFC Universitat de Barcelona):
Complex systems for exercise physiology.

15:05 – 15:35 **Ana Leonor Rivera & Antonio Barajas-Martinez**
(Universidad Nacional Autónoma de México):
Physiological networks from anthropometric, chemical and vital signs data.

15:35 – 15:55 **Joe Rowland Adams** (Lancaster University):
Chronotaxic systems and cell energy metabolism.

15:55 – 16:00 **Danilo Bondi**: Conclusions

Symposium 3: FEPS Symposium

Chair: **Markus Hecker** (FEPS Past-President, University of Heidelberg)

14:00 - 14:30 **Andraz Stozer** (University of Maribor): Coupling within and between insulin-secreting beta cells in health and disease.

14:30 - 15:00 **Tina Chowdhury** (Queen Mary's University of London): Healing mechanisms in fetal membrane defects after trauma.

15:00 - 15:30 **Niall MacQuaide** (Glasgow Caledonian University): The impact of Ryanodine Receptor cluster ultrastructural alterations in disease.

15:30 - 16:00 **Thomas Korff** (Heidelberg University): Coping with hypoxic stress - Adjustment of cellular transcription in pulmonary arteries by NFAT5.

16:00 - 16:15 Break

16:15 - 17:00 **FEPS Keynote Lecture: Annette Dolphin** (University College London): Neuronal calcium channel trafficking and function: relevance to chronic pain.
Chair: Susan Wray (FEPS President, University of Liverpool)

17:00 - 17:30 Awards & Closing

Chair: **Bayram Yilmaz** (FEPS Secretary General, Yeditepe University)



Guides for EYPS Oral and Poster Communications

Oral Communications:

- Oral communications at the meeting must be presented in English.
- Each oral presentations will be given 10 min and + 5 min for discussion.

Poster Communications:

- Posters must be presented in English.
- Prepare and submit your poster as PDF (an example is provided on the web page).
- Poster presenting authors should limit their short poster communication to max. 4 slides (a template is provided at the web page).

Web page: www.feps.org/european-physiology-day

Zoom Link:

<https://us02web.zoom.us/j/87832032526?pwd=MzYrRkM0cm1RMG03NmtPSWIBNDZPd09>

Meeting ID: 878 3203 2526

Passcode: 136637