



Message from the FEPS President

Dear European Physiologists,

Thank you for opening our Newsletter. As part of our effort to increase communications with our national societies and their members, the FEPS Executive Committee has reinstated the FEPS Newsletter. Our aim is to draw attention to both our activities, and those of our member societies. We will also make announcements about future meetings, news items and celebrate successes.

That there is much excitement and vibrancy in European physiology cannot be repeated often enough. An example? You will find below an illustrated account of our European Day of Physiology, prepared by our General Secretary, Professor Bayram Yilmaz. With over 600 participants, this successful event showcased some of the best physiology and physiologist in Europe.

We will continue to promote physiology in our future Newsletters. I want to wish physiologists near and far, the very warmest and happiest Season's Greeting, and an excellent and productive 2022.

Susan Wray



Executive Board of FEPS

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News & Events

We welcome all news & events from the FEPS member societies to publish in the Newsletter also at the web page (www.feeps.org). Please send all information to the FEPS secretariat at info@feeps.org

European Physiology Day

Virtual Meeting

12th October 2021



FEPS organised a virtual meeting "European Physiology Day" on 12th October 2021 to bring the physiologists together and maintain motivation for research as the physical meetings have not been possible because of the COVID-19 pandemic since February 2020.

This meeting included a European Young Physiologists' Symposium (EYPS), Teaching Symposium, FEPS-Acta Physiologica Rising Star Award lecture, FEPS lecture and three symposia. Oral and poster communication awards were presented to the winners at the closing ceremony. Details of the program can be found at the FEPS web page (www.feeps.org/european-physiology-day).

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ACTA PHYSIOLOGICA

Rising Star Award

for early career physiologists
European Physiology Day, 2021

European Physiology Day
Virtual Meeting

12th October 2021



Acta Physiologica Rising Star Award Lecture

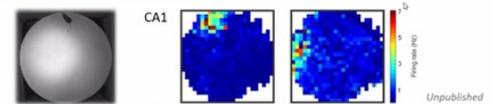
This year, Acta Physiologica & FEPS Rising Star lecture was given by Dr. Riccardo Beltramo (University of Cambridge) "Neocortical space for the visual midbrain". He was introduced by Professor Pontus Persson, the Editor-in-Chief of the journal.



2) Visual pathways for navigation

• How does the collicular pathway, through POR, influence internal spatial representations and navigation?

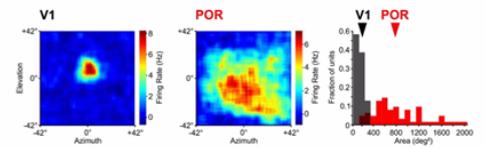
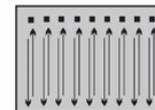
• Hippocampal recordings in freely moving animals



• Head-fixed recordings in virtual reality

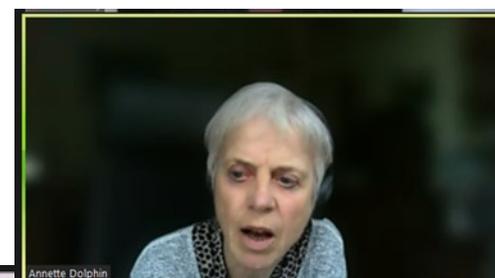


Does POR have receptive fields properties similar to the collicular "wide-field" cells?



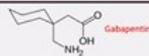
FEPS Lecturer: Professor Annette Dolphin

FEPS keynote lecture was given by Professor Annette Dolphin (University College London): "Neuronal calcium channel trafficking and function: relevance to chronic pain".



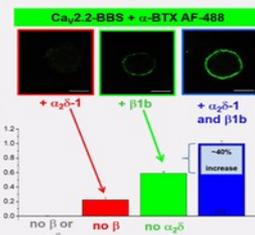
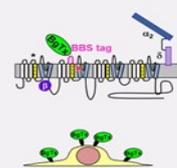
A brief history of gabapentin

Gabapentin as an antiepileptic drug in man



- Gabapentin (Neurontin) was approved in early 1990's for use as an **add-on drug (adjunct therapy)** to control partial seizures.
- In 2002, it was also approved for treatment of **post-herpetic neuralgia and other painful neuropathies**.
- The "gabapentin receptor" was then isolated from pig brain and found to be $\alpha_2\delta$ (Brown and Gee, 1998; Parke Davis, Cambridge).
- Knockin mouse studies show that $\alpha_2\delta$ -1 is therapeutic binding site for gabapentin (Field et al, PNAS 2006).

Both $\alpha_2\delta$ and β increase cell surface expression of Ca_v2.2



$\alpha_2\delta$ -1 increases Ca_v2.2 on cell surface by ~40% in N2A cells

European Young Physiologists' Symposium (EYPS) 2021

Six oral communications and 10 poster communications were selected from a total of 50 abstracts submitted to the EYPS. They were reviewed and programmed by the EYPS organisers, Drs. Nina Ulrich and Burak Oymak.

EYPS Best Poster Presentation Awards

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

Aoife D. Slyne: Preserved Accessory Muscle Function in a Mouse Model of Early Dystrophic Disease.

Adriana M. Capucho: Carotid sinus nerve resection prevents cognitive dysfunction in an animal model of dysmetabolism.

Mattia Musto: Activity-dependent synaptic and structural plasticity of cerebellar climbing fibers.

Madelaine M. Audero: Acidic microenvironment promotes PDAC cells' survival by inducing more aggressive cancer cells: role of Store-Operated Ca^{2+} signals.



EUROPEAN PHYSIOLOGY DAY

European Young Physiologists' Symposium (EYPS)

Virtual Meeting

ABSTRACT
SUBMISSION
UNTIL
12TH SEPTEMBER
2021

12th October 2021
9.00-12.00

A unique opportunity for MD & PhD students and young PostDocs to meet and discuss science!

POSTER
PRIZES

BEST
SPEAKER
AWARD

ORAL
PRESENTATIONS

BEST
SPEAKER
AWARD

EYPS Best Oral Communication Awards

Fatemeh Kermani: Reshaping Induced Pluripotent Stem Cell-Derived Cardiomyocytes: Structural Remodeling and Functional Maturation

Giorgia Chinigò: TRPM8-Rap1A interaction inhibits prostate cancer cell adhesion and migration.

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

Yavuz Yavuz: Opioid Modulation of Hypothalamic Arcuate AgRP Neurons in Transgenic Mice.

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



BEST
SPEAKER
AWARD



Meetings of FEPS Member Societies

LS2 Swiss Physiology Meeting 2021 was organised by the Swiss Physiological Society in Fribourg on 6th September 2021.

More information about the meeting can be found at: <https://meetings.ls2.ch/physiology2021>



LS² Life Sciences Switzerland
Physiology

6 September 2021, HES-SO Fribourg
Hochschule für Technik und Architektur Fribourg | Bd de Pérolles 80 | 1700 Fribourg

Keynote speakers:

Prof. Ralf Brandes
(Vascular Research Centre, Frankfurt am Main, DE)
"Epigenetic Aspects of Angiogenesis"

Prof. Miriam Stoeber
(University of Geneva, CH)
"Cellular landscape of GPCR activation and signaling"

General registration
deadline:
15 August 2021

Free for LS²
Members
(registration required)

Abstract deadline
08 August 2021

Young Investigator
Award deadline
Extended 22 July
2021

The 28th Congress of the Polish Physiological Society was organised in Gdansk, Poland on September 15-17, 2021.

The meeting was organized under the title "from diversity in physiology to interdisciplinary cooperation". More information can be found at:

<https://ptf.gumed.edu.pl/>



46th Turkish Physiology Congress was organised online between 8-10th October 2021.

Plenary lecturers included Professor Kamil Uğurbil (University of Minnesota), Professor Robert Fenton (Aarhus University) and Frances Ashcroft (University of Oxford).

More information can be found at: www.ufk2021.org



EUROPHYSIOLOGY 2022

COPENHAGEN, 16-18 SEPTEMBER 2022

The third of the Europhysiology meeting series will be organised on 16-18 September 2022 in Copenhagen, Denmark.

A strong scientific program has been prepared.

Early registration and abstract submission will be open in February and May 2022, respectively.

Visit the web site for more details: <https://europhysiology2022.org/>

