How to find us

Event location

Deutsche Akademie der Naturforscher Leopoldina e. V.
– German National Academy of Sciences –
Jägerberg 1 | 06108 Halle (Saale)

Registration

The event is open to everyone interested in the subject.
Registration is necessary but there is no attendance fee.
https://www.eventbrite.co.uk/e/physiology-pathophysiology-2023-symposium-tickets-444527382367

The Leopoldina originated in 1652 as a classical scholarly society and now has 1,600 members from almost all branches of science. In 2008, the Leopoldina was appointed as the German National Academy of Sciences and, in this capacity, was invested with two major objectives: representing the German scientific community internationally, and providing policymakers and the public with science-based advice

The Leopoldina champions the freedom and appreciation of science. It promotes a scientifically enlightened society and the responsible application of scientific insight for the benefit of humankind and the natural world. In its interdisciplinary discourse, the Academy transcends thematic, political and cultural boundaries. It is also an advocate of human rights.

Leopoldina
Nationale Akademie
der Wissenschaften

Physiology and Pathophysiology 2023

Leopoldina Symposium

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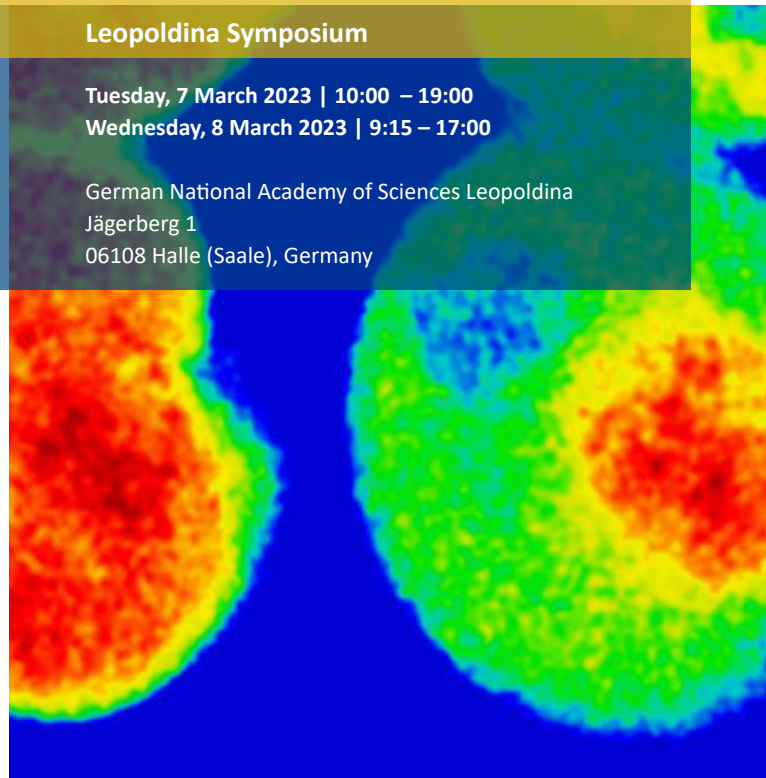
Tuesday, 7 March 2023 | 10:00 – 19:00
Wednesday, 8 March 2023 | 9:15 – 17:00

German National Academy of Sciences Leopoldina
Jägerberg 1
06108 Halle (Saale), Germany



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Academia Europaea
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Physiology and Pathophysiology 2023

By investigating organelles, cells, organs and organisms, physiologists work to define the mechanistic basis of living systems in health and disease. However, in spite of major recent advances, it is a serious problem that the biomedical sciences are currently ‚drowning' in masses of data that do not generate new ideas or models (https://doi.org/10.1093/function/zqac048). We are in danger of missing the ‚big picture'. The conference will therefore be a very broad physiology/pathophysiology symposium that takes us all the way from the main bodily support systems to the principal functions, namely, sensing, moving, talking and thinking. We aim for presentations that provide a broad perspective without getting lost in minor details and there will be adequate time for meaningful discussions.

Programme, 7 March

10:00 Welcome

Professor Dr Ole Petersen ML (Editor-in Chief, Function)
Cardiff University

10:10 General Physiology

Professor Annette Dolphin
University College London

Professor Dennis Brown
Harvard Medical School

Professor Alan North
University of Manchester

Professor Anant Parekh
National Institute of Environmental Health, NIH, North Carolina

Professor Colin Nichols
Washington University School of Medicine in St Louis

12:35 General Discussion

14:15 Neuroscience

Professor Usha Goswami ML
University of Cambridge

Professor Carl Petersen
Brain Mind Institute, EPFL, Lausanne

Professor Alex Verkhratsky ML
University of Manchester

Professor Denis Burdakov
ETH, Zürich

16:15 General Discussion

Programme, 8 March

9:15 Cardiovascular Physiology

Professor Donald M Bers
University of California, Davis

Professor Mark T Nelson
University of Vermont

Professor David Poole
Kansas State University

Professor Wolfgang Kübler
Charité - Universitätsmedizin Berlin

11:25 General Discussion

13:00 Kidney and Fluid Balance

Professor Allen Cowley
Medical College Wisconsin

Professor Ora Weisz
University of Pittsburgh

13:50 General Discussion

14:15 The pancreas as a physiological and pathophysiological model

Professor Julia Gerasimenko
Cardiff University

Professor Peter Hegyi
Semmelweis University, Budapest

Professor Monika Jakubowska
Jagiellonian University in Krakow

Professor John Neoptolemos
University of Heidelberg

16:15 General Discussion

17:00 End of Meeting

Leopoldina-Lecture

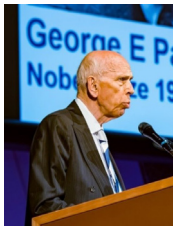
7 March | 18:30

Professor Dr Ole Petersen ML
University of Cardiff

How alcohol poisons the cells of the pancreas

Alcohol is easily absorbed and penetrates almost instantly into all cells. The effects of alcohol on human behaviour are quickly apparent, but are still too complex to be properly understood. However, we do now understand the mechanism by which alcohol poisons pancreatic cells and, in particular, how it affects the mitochondria, the cellular powerhouses. The structure of this organelle was described 70 years ago by Leopoldina Member and Nobel Laureate George Palade, who also elucidated the structure of many other organelle types. We can now observe vital processes in individual organelles directly, and in real time, in the living pancreatic tissue and thereby determine how alcohol, often in combination with fatty acids, influences key cell functions. These insights have implications for the treatment of pancreatic diseases and, surprisingly, possibly also for Covid-19.

Professor Dr Ole Petersen



Ole Petersen is one of the most respected scientists in the field of pancreas research and has published more than 400 scientific papers on the function of the pancreas. Since 2010, Ole Petersen has succeeded Nobel Laureate Sir Martin Evans as Director of the Cardiff School of Biosciences at Cardiff University in Wales. He is a member of various European science academies, such as the Leopoldina and the Royal Society, and has received many awards for his research including, most recently, the 2022 Palade Prize. He is also editor-in-chief of the American Physiological Society's open access journal Function, which has been published since 2020.

ML=Member of the Leopoldina