

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
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der Wissenschaften

Registration

To participate please register until **2 April 2025** at:

www.leopoldina.org/en/cerebral-organoids

Cerebral organoids: Reconstituting human brain development and disease in 3D cell culture

Presentation of Certificates and Leopoldina Lecture

9 April 2025 | 17:00–20:00

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

Contact

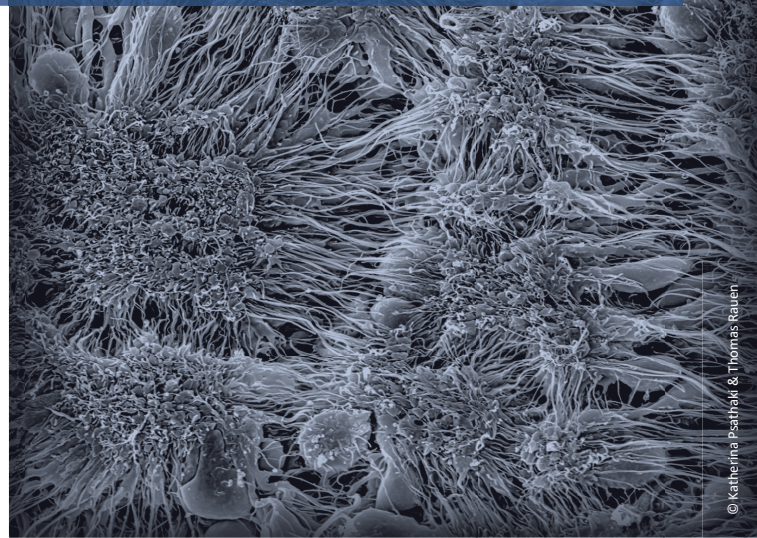
Dr. Sebastian Wetterich

German National Academy of Sciences Leopoldina

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www.leopoldina.org



Program

17:00 | Presentation of Certificates

to the New Members of Class II – Life Sciences

18:15 | Presentation of the Schleiden Medal 2025

Laudatio:

Prof. Dr. Bettina Rockenbach
President of the Leopoldina

Short Presentation of the Laureate

How does a salamander regenerate its limb?

Prof. Dr. Elly Tanaka
Institute of Molecular Biotechnology, Vienna, Austria

18:45 | Leopoldina Lecture

Cerebral organoids: Reconstituting human brain development and disease in 3D cell culture

Prof. Dr. Jürgen Knoblich ML
Deputy Director at IMBA – Institute of Molecular Biotechnology, Vienna, Austria

ML – Mitglied der Leopoldina



Foto: © Markus Scholz/Leopoldina

Jürgen Knoblich and his team focus on the most complex of all organs: the human brain. In 2013, they introduced the groundbreaking brain organoid technology that enables the recreation of human brain development in cell culture. The study of brain organoids made it possible to understand fundamentals of human brain development, such as the unique connectivity and size of human brains, and to shed light on neurodevelopmental disorders, including autism and Parkinson's disease.

Starting from stem cells, which can be derived from both healthy individuals and patients with specific diseases, the early stages of fetal brain development are recapitulated in brain organoids. By comparing organoids derived from healthy individuals with those from patients, it is possible to develop disease models to investigate the underlying defects and explore potential drug or gene therapies directly on human tissue, without the need for animal experiments.

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Jürgen Knoblich

is a German molecular biologist. He started his scientific career at the Max Planck Institute for Developmental Biology in Tübingen where he worked on cell cycle control in *Drosophila*. In 1994 he moved to San Francisco to join the

University of California where he discovered his interest in asymmetric cell division. In 1997, Jürgen Knoblich became a group leader at the Institute of Molecular Pathology in Vienna. In 2004, he moved to the Institute of Molecular Biotechnology of the Austrian Academy of Sciences. Here, he became a senior scientist and was appointed deputy director of the institute in 2005 and director from 2018-2024. Since 2021, he holds a professorship in Synthetic Biology at the Medical University of Vienna.

Jürgen Knoblich is a full member of the Austrian Academy of Sciences and member of the Pontifical Academy of Sciences. He has received several awards including the Austrian Wittgenstein Prize, the Schrödinger Award of the Austrian Academy of Sciences, and the Anniversary Award and the Sir Hans Krebs Medal of the Federation of European Biochemical Societies.