



Bayer AG
Communications
51368 Leverkusen
Germany
Phone +49 214 30-1
www.bayer.com/en/media

News Release

"And the Science Awards go to..."

Bayer Foundation announces Science Awards winners of 2024

- Professor Meritxell Huch, a director at the Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany receives this year's Otto Bayer Award for her pioneering research on human organoids
- Four early career scientists are honored with the Early Excellence in Science Awards for their boundary breaking research in the fields of Biology, Chemistry, Data Science and Medical Science

Leverkusen, November 6, 2024 – Professor Meritxell Huch receives this year's Otto Bayer Award. The Otto Bayer Award is presented alternating with the Hansen Family Award every second year. The award recognizes leading scientists working in German-speaking countries for ground-breaking research in chemistry or biochemistry. The award with a prize money of EUR 75,000 was generously established in 1984 by a provision in the will of Professor Otto Bayer, a former Director of Research at Bayer AG.

Professor Meritxell Huch from the Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany is receiving the award in recognition for her pioneering research on human organoids. Organoids are small, in-vitro organ-like structures derived from stem/progenitor and/or adult cells. Her work has significantly advanced the use of organoid models in drug discovery, screening, and disease modeling for personalized medicine. Professor Huch and her team have developed and further studied the growth, regeneration and application of animal and human liver and pancreas organoids. Her research is of great importance for the development of new therapies to combat life-threatening diseases in these organs, like cancer, thus reducing the need for animal testing. For her scientific work, Professor Huch has already received several awards, including the Women in Cell Science Award and the German Stem Cell Network Award.

In 2023, she was elected to become a member of the European Molecular Biology Organization (EMBO). Since May 2024, Huch is an Honorary Professor for stem cell research and tissue regeneration at the Medical Faculty of the TU Dresden.

Early Excellence in Science Awardees

In addition to the Otto Bayer Award and the Hansen Family Award, Bayer Foundation honors every year early career scientists for their outstanding research with the Early Excellence in Science Award (EESA) in Biology, Chemistry, Data Science and Medical Science. These awards, with a prize money of EUR 10,000 each, are presented to early career scientists worldwide.

This year's award in the **Biology** category is presented to **Dr. Na Cai** (Helmholtz Pioneer Campus, Munich, Germany) in recognition of her impactful research on genetic factors in neuropsychiatric diseases, particularly Major Depressive Disorder (MDD). Her work is essential for advancing our understanding of mental health. Dr. Cai is using a unique combination of publicly available quantitative genetics data and hypothesis-driven novel multi-omics resources generated by her team. Her studies will shed light on the vast heterogeneity in neuropsychiatric diseases and the metabolic differences between individuals.

Dr. Richard Liu (Harvard University, Cambridge, USA) is the winner of the award in **Chemistry** and recognized for his innovative research on catalytic reactions to produce novel, high-quality products and enhance the drug discovery pipeline. His research group explores metal-based and redox-active organic structures that enable complex chemical reactions, including palladium-, copper-, and nickel-catalyzed cross-coupling reactions. Dr. Liu's work is highly interdisciplinary and aims to develop new concepts at the interface of organic, inorganic, and physical chemistry.

In the **Medical Science** category, the award goes to **Dr. Jordan Squair** (NeuroRestore, École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland) for his pioneering discoveries and innovations in neuroprosthetics and regenerative medicine, which open novel therapeutic options for patients with neurotraumatic and neurodegenerative disorders. In his early career, Dr. Squair contributed to the design of implants that enable individuals with spinal cord injuries to regain the ability to walk. Currently, he is investigating how spinal cord stimulation via implants can be used to raise

low blood pressure, a severe symptom often occurring in individuals with paralysis. Dr. Squair successfully works at the intersection of life sciences and entrepreneurship, a fact recognized in 2023 when Science Magazine awarded him with the BioInnovation Institute & Science Prize for Innovation.

The award for **Data Science** is attributed to **Dr. Ivana Winkler** (German Cancer Research Center (DKFZ), Heidelberg, Germany) for her groundbreaking research in female reproductive biology. She employs single-cell RNA sequencing and transcriptome data to advance therapies for reproductive health and healthy aging. As scientist in a large interdisciplinary research project on mice, Dr. Winkler contributed significantly to the development of a “cell atlas” which systematically maps first time all changes in gene activity and morphology across different phases and tissues of the female reproductive tract. Her work also shows that recurrent remodeling of these tissue over reproductive lifespan drives the gradual, age-related development of fibrosis and chronic inflammation. Although these findings, have been observed only in mice so far, they have high potential for developing new therapies to fight cancer in the reproductive organs of women.

The award winners were selected by the members of Bayer Foundation's Science Council: Professor Edith Heard (Director General of the European Molecular Biology Laboratory, Heidelberg, Germany and Chairwoman of the Bayer Foundation's Board of Trustees), Professor Regine Kahmann (Emeritus Acting Head, Max Planck Institute for Terrestrial Microbiology, Marburg, Germany), Professor Lothar Willmitzer (Emeritus, former Director of the Molecular Plant Physiology Department, Max Planck Institute of Molecular Plant Physiology, Golm, Germany), and Professor Dirk Trauner (Penn Integrates Knowledge (PIK) Professor, University of Pennsylvania, USA).

Science Award Celebration in the upcoming year

All award winners will be honored at Bayer Foundation's 2024 Science Award Celebration on the 17th of February 2025 in Leverkusen. The celebration will include a scientific symposium, including brief flash talks from the EESA recipients and distinguished Bayer scientists. After a festive laudation held by Professor Edith Heard, the Otto Bayer Award will be handed over to Professor Meritxell Huch who will present her research in a keynote lecture.

About Bayer Foundation

Bayer Foundation, as Bayer's corporate foundation, generates impact by supporting breakthroughs in science and social innovations that advance societal progress worldwide. The Foundation's vision is to catalyze advances in Science and Social Innovation for a world with Health for all, Hunger for none. Bayer Foundation supports aspiring scientists, social entrepreneurs and impact organizations who work towards breakthrough innovations at the intersection of health, food security and environment. For more information about Bayer Foundation please see [Bayer Foundation \(bayer-foundation.com\)](https://bayer-foundation.com).

About Bayer

Bayer is a global enterprise with core competencies in the life science fields of health care and nutrition. In line with its mission, "Health for all, Hunger for none," the company's products and services are designed to help people and the planet thrive by supporting efforts to master the major challenges presented by a growing and aging global population. Bayer is committed to driving sustainable development and generating a positive impact with its businesses. At the same time, the Group aims to increase its earning power and create value through innovation and growth. The Bayer brand stands for trust, reliability and quality throughout the world. In fiscal 2023, the Group employed around 100,000 people and had sales of 47.6 billion euros. R&D expenses before special items amounted to 5.8 billion euros. For more information, go to www.bayer.com.

Contact for media inquiries:

Marc de Bruyn Ouboter, phone +49 214 30-47187

Email: marc.debruyn@bayer.com

Find more information at www.bayer.com.

mbo (2024-0193E)

Forward-Looking Statements

This release may contain forward-looking statements based on current assumptions and forecasts made by Bayer management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Bayer's public reports which are available on the Bayer website at www.bayer.com. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.