

Deciphering cell biology

New methods succeed in unraveling open questions of cell biology and expanding, even sometimes challenging prevailing knowledge. This is what the winners of the 2022 GSCN Awards are achieving. While GSCN Young Investigator Simon Haas is newly defining the well described system of blood stem cells with his new insights, GSCN Award winner Meritxell Huch is using liver organoids to explore the fundamental regenerative capacity of human tissue. The GSCN Publication of the Year also turns an established model of cell biology on its head: the centrosome is not the same in all cells, as previously thought. With the GSCN Awards 2022, the German Stem Cell Network recognizes outstanding stem cell researchers on their way to expand basic research and open up new avenues for therapeutic options.

- The "GSCN 2022 Young Investigator Award" goes to **Simon Haas** from the Berlin Institute of Health (BIH), the Charité and the Max Delbrück Center for Molecular Medicine (MDC) in Berlin.

- The "GSCN 2022 Hilde Mangold Award" goes to **Meritxell Huch** from the Max Planck Institute for Molecular Cell Biology and Genetics (MPI-CBG) in Dresden.

- The "GSCN 2022 Publication of the Year Award" goes to **Adam C. O'Neill, Fatma Uzbaz, Giulia Antognolli** and **Florencia Merino** as well as **Magdalena Götz** from Helmholtz Munich and Ludwig-Maximilians-University Munich (LMU).

About the Awardees:

Dr. Simon Haas receives the "GSCN 2022 Young Investigator Award" for his excellent research about the complex interplay between the immune system, blood stem cells, cancer cells and factors from the cellular environment. To this end, Simon Haas and his research group are developing novel single-cell and spatially resolved technologies. With his set of complex methods, Simon Haas has redefined the map of how blood cells arise from blood stem cells. In addition, Simon Haas' laboratory is developing highly accurate, personalized diagnostic and prognostic approaches based on single-cell technologies. These newly developed approaches will enable early disease detection and personalized treatment strategies with the long-term goal of therapeutically preventing cancers before their onset.

Simon Haas studied Molecular Cell Biology, Biochemistry and Molecular Biosciences at Heidelberg University, Imperial College London and the German Cancer Research Center (DKFZ). He received his PhD from DKFZ and Heidelberg University in 2016. Simon performed research at DKFZ, Massachusetts Institute of Technology (MIT) and Harvard. In 2016 he became research group leader at HI-STEM and the DKFZ. As of 2020, Simon is an independent group leader at the Berlin Institute of Health (BIH), the Charité university medicine and the Berlin Institute of Medical Systems Biology (BIMSB) at the Max Delbrück Center (MDC) in Berlin, Germany

Links: www.mdc-berlin.de/de/haas, www.bihealth.org/en/research/research-group/systems-hematology-stem-cells-precision-medicine

Dr. Meritxell Huch receives the "GSCN 2022 Hilde Mangold Award" for her many years of significant research on organoids of the liver in animal models and in human tissue. Currently, the Spanish scientist and her research group at the MPI for Molecular Cell Biology and Genetics (MPI-CBG) in Dresden are developing human organoid models to study the molecular and cellular basis of adult



human tissue regeneration. The goal is to understand in detail how human tissue regenerates and how these mechanisms are disrupted in disease. The GSCN Hilde Mangold Award recognizes the scientist for her sustained research and achievements as a researcher.

Meritxell Huch (*1978) studied pharmacy at the University of Barcelona. She received her PhD from the Centre for Genomic Regulation in Barcelona, Spain, in 2007 and moved to the Hubrecht Institute in the Netherlands for her postdoctoral period. In February 2014, she established her own lab as a junior group leader at the Gurdon Institute at the University of Cambridge. In 2019, Meritxell Huch was awarded the first Max Planck Society Lise Meitner Excellence Program Prize and moved her lab to the MPI-CBG, where she was appointed director in May 2022. She has received several awards for her pioneering work in the development of organoid models, including the Hamdan Award for Medical Excellence, the Women in Cell Science Prize of the British Society, the EMBO Young Investigator Award and the BINDER Prize.

Link: www.mpi-cbg.de/research/researchgroups/currentgroups/meritxell-huch/group-leader

Dr. Adam C. O'Neill, Dr. Fatma Uzbaz, Giulia Antognolli and Florencia Merino as well as **Prof. Dr. Magdalena Götz** from Helmholtz Munich and Ludwig-Maximilians-University Munich (LMU) receive the "**GSCN 2022 Publication of the Year Award**" for their joint publication "[Spatial centrosome proteome of human neural cells uncovers disease-relevant heterogeneity](#)" in the journal *Science* 2022. As a central cell organelle the centrosome is responsible, among other things, for the organization of the cytoskeleton and cell division. Dysfunction of the human centrosome is associated with many neurodevelopmental disorders. Until now, it was assumed that the centrosome is very similar in all cells due to its general tasks. However, it may differ between cells more than thought: the composition of proteins in centrosomes varies greatly depending on the cell type, i.e. more than half of them change as the neural stem cells become neurons. The new analysis could uncover new association of brain malformations with the centrosome, and explains why a mutation in a protein present in all cells causes disease only in the brain (because only there it is at the centrosome). The new analysis could thus become an important resource for testing further associations with neuronal diseases and for tracking down mechanisms of additional diseases. At the GSCN Conference 2022 in Münster, Dr. Fatma Uzbaz will give the award lecture on 15 September.

Links: [Fatma Uzbaz](#) und [Magdalena Götz](#)

The three GSCN Awards are endowed with 1,500 Euro each and the winners will give a lecture at the Presidential Symposium on Thursday, 15 October 2022, at this year's GSCN Annual Conference. At the invitation of the GSCN Presidents, Nobel Laureate Prof. Dr. Shinya Yamanaka, Tokyo, Japan, will give a talk at the Presidential Symposium as a special presenter.

The GSCN has been networking stem cell researchers working in Germany nationally and internationally since 2013 and communicates their results and research to a broad public. The promotion of young scientists and the presentation of outstanding female scientists receive special attention at the GSCN with the "GSCN Hilde Mangold Award". Since 2021, the GSCN closely cooperates with the Berlin Institutes of Health (BIH) in the jointly founded "Dialogue Platform Stem Cell Research".

More general information can be found on the website www.gscn.org.

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