

Gregor F. P. Schuhknecht

(Dr. sc. ETH Zürich)

Max Planck Institute for Brain Research | Max-von-Laue Straße 4, 60438 Frankfurt am Main, Germany

🌐 <https://brain.mpg.de/schuhknecht> | ✉ gregor.schuhknecht@brain.mpg.de | ☎ +49 69 850033-1410

ORCID-ID 0000-0001-5797-2386 | [Google Scholar](#)

ACADEMIC APPOINTMENT

09/2025 – present **Max Planck Research Group Leader** and Principal Investigator of the [Brain Algorithms and Circuits Group](#), Max Planck Institute for Brain Research, Frankfurt, Germany.

EDUCATION AND ACADEMIC TRAINING

09/2019 – 08/2025 **Postdoctoral Fellow**, Department of Molecular and Cellular Biology, Harvard University, USA. Mentor: Prof. Florian Engert.

07/2014 – 07/2019 **Doctorate in Neuroscience** at the Institute of Neuroinformatics, Swiss Federal Institute of Technology Zurich (ETH Zürich) and University of Zürich, Switzerland. Mentor: Prof. Kevan A.C. Martin. Thesis: [Structure and function of synapses in the first stages of processing in mouse neocortex](#).

09/2012 – 06/2014 **Master of Science in Biology** (Neuroscience), ETH Zürich, Switzerland.

09/2009 – 07/2012 **Bachelor of Science in Biosciences**, University of Heidelberg, Germany.

ACADEMIC AWARDS AND HONORS (selected)

10/01/2025 Elected **Full Member in Sigma Xi**, the Scientific Research Honor Society.

09/20/2024 **Meselson Prize for ‘the most beautiful experiment of the year’**, Department of Molecular and Cellular Biology, Harvard University, for paper *Functional neuronal circuits emerge in the absence of developmental activity*.

11/16/2023 **Aspirational Neuroscience Award 2023** (US\$ 25,000 prize money) for paper *Structure and function of a neocortical synapse*, *Nature* (2021).

12/29/2021 Our paper *Structure and function of a neocortical synapse* was listed in **The Scientist’s ‘Favorite Neuroscience Stories of 2021’**.

01/20/2021 **Swiss Society for Neuroscience Best Publication Award 2021** (Systems Neuroscience) for paper *Structure and function of a neocortical synapse*.

06/24-29/2018 Participation as a **Young Scientist at the 68th Lindau Nobel Laureate Meeting**, Lindau, Germany (scholarship by the Boehringer Ingelheim Foundation and the Nobel Foundation).

FUNDING, FELLOWSHIPS & SCHOLARSHIPS

08/2021 – 01/2023 **Swiss National Science Foundation Postdoc.Mobility Fellowship** (CHF 85,500).

09/2019 – 04/2021 **Swiss National Science Foundation Early Postdoc.Mobility Fellowship** (CHF 111,150).

2018 – 2024 **Various travel grants** by the Society for Neuroscience (SfN), the Swiss Society for Neuroscience and Neuroscience Center Zurich. (totaling ~ US\$ 5,000)

07/2011 - 08/2011 **German Academic Exchange Service Fellowship** for research internship at the Department of Immunology, National University of Singapore.

MEDIA COVERAGE AND CONTRIBUTION TO POPULAR SCIENCE ARTICLES (selected)

10/2025 **Labor Journal**, [Die Algorithmen des Gehirns](#).

12/2021 **Quanta Magazine**, [New brain maps can predict behaviors](#).

11/2021 **Bloomberg Documentary**, [How slicing up brains could unlock the mind’s secrets](#).

03/2021 **The Scientist**, [Flexible synapse strength may underpin mammal brain’s complexity](#).

07/2018 Invited Author for **ETH Zurich Ambassador Blog**, [Learning from Nobel Laureates](#).

INVITED PRESENTATIONS (selected)

02/10/2026 **Institute of Cell Biology and Neuroscience, Goethe University Frankfurt**, Frankfurt, Germany

11/05/2025 **Institute for Neurobiology, University of Tübingen**, Tübingen, Germany

10/03/2025 **Institute of Neuroinformatics, University of Zürich, ETH Zürich**, Switzerland

07/21/2024 **Okinawa Institute of Science and Technology (OIST)**, Onna, Japan

07/18/2024	Department of Chemistry & Biotechnology , School of Engineering, University of Tokio, Japan
04/30/2024	Max Planck Institute for Brain Research , Frankfurt, Germany
07/19/2023	LMU-Harvard Young Scientist's Forum , Munich, Germany
07/11/2023	Institute of Neuroinformatics , University of Zurich, ETH Zürich, Switzerland
04/12/2022	Driver Seat Neuroscience Talk Series (organized by Marcus Davidsson & Andreas Heuer), Lund University, Sweden
02/19/2021	Whole Mouse Brain Connectome Social Hour (organized by Jeff Lichtman, Viren Jain & Jörg Kornfeld), MIT & Harvard University, USA
01/29/2021	Swiss Society for Neuroscience Council Meeting , Switzerland
11/14/2018	Engert Lab, Department for Molecular and Cellular Biology , Harvard University, USA

ORGANIZATION OF SCIENTIFIC EVENTS

11/17/2025	Organizer and chair of nanosymposium 'Connectomics' at SfN 2025 (annual meeting of the Society for Neuroscience), San Diego, USA.
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MENTORSHIP (selected)

Throughout my academic career, I have supervised and mentored several students. I am proud of their many scientific achievements and their future professional successes in academia and industry:

Harvard University	Supervision of master students Ariel Martinez-Silberstein (now PhD student at ETH Zürich), Alina Hebling (now PhD student at UCSF) and Moritz Stingl (now PhD student at UCSF) and medical students Robert Tiller and Dana Hockling .
ETH Zürich	Supervision of master students Benjamin Ehret (afterwards postdoc at ETH Zürich), Alexandra Gastone Guilabert (now in consulting), and Moritz Buchholz (afterwards PhD student at UCL, London), their joint work was published in <i>Buchholz et al. (2023)</i> .

TEACHING (selected)

02/2023 – 05/2025	Teaching Fellow for undergraduate course 'Systems Neuroscience' Department of Molecular and Cellular Biology, Harvard University (MCB-105).
12/2017 – 07/2019	Guest Lecturer of graduate course 'Introduction to Systems Neuroscience' ETH Zürich (227-1051-00L).

OUTREACH (selected)

<i>Ongoing</i>	Participation in the annual Max Planck Junior Scholar's Program : my lab is offering summer internships for outstanding high school students from groups that are underrepresented in science.
03/2026	Invited Speaker , Frankfurt hat Hirn : public outreach lecture on systems neuroscience and neural circuit research for a broad audience, including high school students.
07/2016 – 08/2019	Outreach for the Life Science Zürich Learning Center , Switzerland: laboratory tours and presentations for senior high school students who came as regular visitors to the institute.
10/2018	Instructor of course 'Focus Brain', including lecture, lab tour, and practical for Swiss senior high school students Life Science Zürich Learning Center.
06/2018	Instructor of course 'Learning in Brains and Machines' for Swiss high school teachers Life Science Zürich Learning Center.

REVIEWING FOR SCIENTIFIC JOURNALS

Nature (2023 – 2025), *eNeuro* (2019)

ACADEMIC COMMITTEE WORK

10/2018 – 09/2019	Representative of the 'middle academic staff' in the Search Committee for a Professor in Neural Computation (University of Zürich, Switzerland).
11/2017 – 09/2019	Representative of the 'middle academic staff' in the Committee for Integrity of the Faculty of Sciences (University of Zürich).
11/2016 – 09/2019	Elected Representative of the 'Middle Academic Staff' of the Institute of Neuroinformatics within the Faculty of Sciences (University of Zürich).

OTHER RELEVANT EXPERIENCE

07/2008 – 04/2009	Compulsory Military Service in the German Army as a paratrooper .
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