

HANNS ULRICH ZEILHOFER**Personal Information**

Date of birth: 05 February 1963, Erlangen, Germany
 Married; two children (born 2013 and 2015)

Professional Information

Present positions Professor of Pharmacology, UZH and ETHZ

Address Institute of Pharmacology and Toxicology, UZH
 Winterthurerstrasse 190, CH-8057 Zürich, Switzerland
 E-mail: zeilhofer@pharma.uzh.ch
 website: www.pharma.uzh.ch/research/neuropharmacology/researchareas/neuropharmacology

University Education

1983 - 1990 Medicine, University of Erlangen-Nürnberg
 1982 - 1985 Physics, University of Erlangen-Nürnberg

Scientific Training

1992-1998 Postdoctoral fellow, Institute of Pharmacology and Toxicology, University Erlangen-Nürnberg
 1990 Postdoctoral fellow (Max-Planck scholarship), Department of Membrane Biophysics, Max-Planck-Institute of Biophysical Chemistry, Göttingen
 1984-1989 MD thesis Institute of Pharmacology and Toxicology, University Erlangen-Nürnberg

Professional and Academic Qualifications

2005 Board Certificate "Clinical Pharmacology", Swiss Medical Association
 1997 Venia legendi (habilitation) "Pharmacology and Toxicology"
 1997 Board Exam "Pharmacology and Toxicology" (Medical Association of the State of Bavaria)
 1990 Foreign Medical Graduate Examination in the Medical Sciences (FMGEMS)
 1990 MD degree (University of Erlangen-Nürnberg, with distinction, *summa cum laude*) and License to practice medicine
 1984 Pre-diploma in Physics

Scientific Positions

2019 - Board member Swiss Academy of Medical Sciences (SAMS)
 2011 - 2019 Member of the National Research Council (division III Biology and Medicine) of the Swiss National Science Foundation (SNSF)
 2006 - Professor of Pharmacology, ETH Zurich (double appointment with UZH)
 2005 - Professor of Pharmacology, UZH
 2003 - 2005 a.i. Chair of Pharmacology and Toxicology, University of Erlangen-Nürnberg
 2001 - 2003 Associate Professor of Molecular Neuropharmacology, Institute of Experimental and Clinical Pharmacology and Toxicology, University of Erlangen-Nürnberg
 2000 Visiting Scientist, Institute of Pharmacology and Toxicology, University of Zürich
 1998 - 1999 Group leader Molecular Neuropharmacology, Institute of Experimental and Clinical Pharmacology and Toxicology, University of Erlangen-Nürnberg

Awards

2016 Phoenix Pharmacy Science Prize, category Pharmacology and Clinical Pharmacy
 2009 Advanced Investigator Grant of the European Research Council
 2007 Sertürner Award for life-time achievements in Pain Research

2005	Award for Excellence in Teaching, University of Erlangen-Nürnberg
2002	I. Pain Research Prize of the DGSS, Category Basic Research
1992	Research Scholarship of the "SANDOZ-Foundation for Therapeutic Research"
1990	Scholarship of the Max-Planck-Society, Institute of Biophysical Chemistry Göttingen, Department of Membrane Biophysics
1982 - 1990	Scholarship of the State of Bavaria

Positions in Academic Administration

2021 -	Deputy Dean, Faculty of Medicine, UZH
2019 - 2021	Vice-Dean Faculty Development (Berufungen), Faculty of Medicine, University of Zurich
2019 -	Member of the Advisory Board "Tierexperimentelle Forschung, UZH"
2012 -	Member of the Commission of the Faculty of Medicine for the appointment of <i>ad personam</i> professors
2010 - 2012	Representative of Basic Science Institutes, Medical Faculty, UZH
2010 - 2012	President Hartmann Müller-Foundation, UZH
2008 - 2012	Member of the Promotion Committee, Faculty of Medicine, UZH
2008 - 2010	Deputy representative of Basic Science Institutes, Faculty of Medicine, UZH
2005 - 2021	Director Institute of Pharmacology and Toxicology, UZH

Current Research Interests

- Spinal cord neurophysiology and pharmacology; pain research
- GABA_A and glycine receptors as key elements of spinal pain and itch control
- Neurons and circuits of descending pain modulation
- Novel approaches to the treatment of rare early childhood epilepsies

On-Going Grant Support

2021-2024	URPP ITINERARE – Innovative therapies in rare diseases; Co-investigator
2021-2025	Horizon 2020 - Research and Innovation Framework Programme (Call H2020-ICT-2020-2): Deep brain photonic tools for cell-type specific targeting of neural diseases (DEEPER; grant no. 101016787); PI Massimo De Vittorio; Co-investigator
2021-2025	SNSF: Neurons and circuits of stress-induced analgesia. PI
2019-2023	CRPP "Pain – from phenotypes to mechanisms". Co-coordinator with Armin Curt. Supported by the Medical Faculty of the University of Zurich.

Ten Most Relevant Research Publications

A complete list of publications is available at: <http://www.researcherid.com/rid/A-4600-2008>

1. Pagani M, Albisetti GW, Sivakumar N, Wildner H, Santello M, Johannssen HC, **Zeilhofer HU** (2019) How gastrin-releasing peptide opens the spinal gate for itch. *Neuron* 103:102-117.
2. Ralvenius WT, Neumann E, Pagani M, Acuña AM, Wildner H, Benke D, Fischer N, Rostaher A, Schwager S, Detmar M, Frauenknecht K, Aguzzi A, Hubbs JL, Rudolph U, Favrot C, **Zeilhofer HU** (2018) Itch suppression in mice and dogs by modulation of spinal $\alpha 2$ and $\alpha 3$ GABA_A receptors. *Nat Commun* 9, 3230.
3. Ralvenius WT, Benke D, Acuña MA, Rudolph U, **Zeilhofer HU** (2015) Analgesia and unwanted benzodiazepine effects in point-mutated mice expressing only one benzodiazepine-sensitive GABA_A receptor subtype. *Nat Commun* 6, 6803
4. Foster E, Wildner H, Tudeau L, Haueter S, Ralvenius WT, Jegen M, Johannssen H, Hösli L, Haenraets K, Ghanem A, Conzelmann KK, Bösl M, **Zeilhofer HU** (2015) Targeted ablation, silencing and activation establish glycinergic dorsal horn neurons as key components of a spinal gate for pain and itch. *Neuron* 85, 1289-1304.
5. Pernía-Andrade AJ, Kato A, Witschi R, Nyilas R, Katona I, Freund TF, Watanabe M, Filitz J, Koppert W, Schüttler J, Ji G, Neugebauer V, Marsicano G, Lutz B, Vanegas H, **Zeilhofer HU**

- (2009) Spinal endocannabinoids and CB₁ receptors mediate C fiber-induced heterosynaptic pain plasticity. *Science* 325, 760-764.
6. Knabl J, Witschi R, Hösl K, Reinold H, Zeilhofer U, Ahmadi S, Brockhaus J, Sergejeva M, Hess A, Brune K, Fritschy JM, Rudolph U, Möhler H, **Zeilhofer HU** (2008) Reversal of pathological pain through specific spinal GABA_A receptor subtypes. *Nature* 451, 330-334.
 7. Reinold H, Ahmadi S, Depner UB, Layh B, Heindl C, Hamza M, Pahl A, Brune K, Narumiya S, Müller U, **Zeilhofer HU** (2005) Spinal inflammatory hyperalgesia is mediated by spinal prostaglandin E receptors of the EP2 subtype. *J Clin Invest* 115, 673-679.
 8. Harvey RJ, Depner UB, Wässle H, Ahmadi S, Heindl C, Reinold H, Smart TG, Harvey K, Schütz B, Abo-Salem OM, Zimmer A, Poisbeau P, Welzl H, Wolfer DP, Betz H, **Zeilhofer HU**, Müller U (2004) GlyR α 3: An essential target for spinal PGE₂ mediated inflammatory pain sensitization. *Science* 304, 884-887.
 9. Ahmadi S, Muth-Selbach U, Lauterbach A, Lipfert P, Neuhuber WL, **Zeilhofer HU** (2003) Facilitation of spinal NMDA receptor-currents by synaptically released glycine. *Science* 300, 2094-2209.
 10. Ahmadi S, Lippross S, Neuhuber WL, **Zeilhofer HU** (2002) PGE₂ selectively blocks inhibitory glycinergic neurotransmission onto rat superficial dorsal horn neurons. *Nature Neurosci* 5, 34-40.

Quantitative Science Indicators

- 108 original research publications in peer-reviewed journals, 19 review articles and 9 book chapters, and 3 patent applications, 1 patent licensed. Total number of citations: 6974, h-index: 48 (Scopus)

Zürich, 06 August 2021

