

Dr. STEFAN LECHNER

Date of birth: 17 May, 1974
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Position: Heisenberg Group Leader,
Department of Molecular Pharmacology,
Institute of Pharmacology
Children: Two (* 2001, * 2004)



CURRICULUM VITAE

University education

1992 - 2000 Studies in Chemistry and Biochemistry, Technical University Vienna, Austria

Scientific degrees

2004 Doctoral dissertation in Pharmacology, Mentor: Prof. Dr. Stefan Böhm, Institute of Pharmacology, Medical University Vienna, Austria

Professional experience

Since 2013 Group leader, Institute of Pharmacology, Medical Faculty of Heidelberg, Heidelberg University, Germany
2006 - 2013 Postdoctoral fellow with Prof. Dr. Gary R. Lewin, Max-Delbrück-Centre for Molecular Medicine, Berlin, Germany
2005 Scientist, Eccocell Biotechnology GmbH, Graz Austria
2004 Postdoctoral fellow with Prof. Dr. Stefan Böhm, Institute of Pharmacology, Medical University Vienna, Austria

Academic functions and awards:

Panels and coordinating functions:

2015 - 2019 Steering Committee member for the DFG Collaborative Research Centre 1158 'Structure-function properties of neural pathways underlying acute and chronic pain and their reorganization'
2008 - 2013 Elected member of the Scientific Council of the Max-Delbrück-Centre for Molecular Medicine Berlin

Awards and honours:

2018 Long-term fellowship from the Chica and Heinz Schaller Foundation
2013 Heisenberg Fellowship of the German Research Foundation

Editorial boards:

Since 2018 Review Editor at Frontiers in Neural Circuits
Since 2016 Associate Editor at PAIN

A) Publications:

- Schaefer I, Prato V, Arcourt A, Taberner FJ, Lechner SG. Differential modulation of voltage-gated sodium channels by nerve growth factor in three major subsets of TrkA-expressing nociceptors. **Molecular Pain** 2018;1744806918814640.
- Dhandapani R, Arokiaraj CM, Taberner FJ, Pacifico P, Raja S, Nocchi L, Portulano C, Franciosa F, Maffei M, Hussain AF, de Castro Reis F, Reymond L, Perlas E, Garcovich S, Barth S, Johnsson K, Lechner SG, Heppenstall PA. Control of mechanical pain hypersensitivity in mice through ligand-targeted photoablation of TrkB-positive sensory neurons. **Nature Communications** 2018;9(1):1640.
- Prato V, Taberner FJ, Hockley JRF, Callejo G, Arcourt A, Tazir B, Hammer L, Schad P, Heppenstall PA, Smith ES, Lechner SG. Functional and molecular characterization of mechanoinensitive "Silent" nociceptors. **Cell Reports** 2017;21(11):3102-3115.
- Arcourt A, Gorham L, Dhandapani R, Prato V, Taberner FJ, Wende H, Gangadharan V, Birchmeier C, Heppenstall PA, Lechner SG. Touch receptor-derived sensory information alleviates acute pain signaling and fine-tunes nociceptive reflex coordination. **Neuron** 2017;93(1):179-193.
- Schrenk-Siemens K, Wende H, Prato V, Song K, Rostock C, Loewer A, Utikal J, Lewin GR, Lechner SG, Siemens J. PIEZO2 is required for mechanotransduction in human stem cell-derived touch receptors. **Nature Neuroscience** 2015;18(1):10-16.
- Wende H, Lechner SG, Cheret C, Bourane S, Kolanczyk ME, Pattyn A, Reuter K, Munier FL, Carroll P, Lewin GR, Birchmeier C. The transcription factor c-Maf controls touch receptor development and function. **Science** 2012;335(6074):1373-1376.
- Smith ES, Omerbasic D, Lechner SG, Anirudhan G, Lapatsina L, Lewin GR. The molecular basis of acid insensitivity in the African naked mole-rat. **Science** 2011;334(6062):1557-1560.
- Lechner SG, Markworth S, Poole K, Smith ES, Lapatsina L, Frahm S, May M, Pischke S, Suzuki M, Ibanez-Tallon I, Luft FC, Jordan J, Lewin GR. The molecular and cellular identity of peripheral osmoreceptors. **Neuron** 2011;69(2):332-344.
- Heidenreich M*, Lechner SG*, Vardanyan V, Wetzel C, Cremers CW, De Leenheer EM, Aranguéz G, Moreno-Pelayo MA, Jentsch TJ, Lewin GR. KCNQ4 K(+) channels tune mechanoreceptors for normal touch sensation in mouse and man. **Nature Neuroscience** 2011;15(1):138-145.
- Lechner SG, Frenzel H, Wang R, Lewin GR. Developmental waves of mechanosensitivity acquisition in sensory neuron subtypes during embryonic development. **The EMBO J** 2009;28(10):1479-1491.

* Equally contributing authors

B) Patents: -

Scientific collaborations beyond the planned Collaborative Research Centre

Gary Lewin, Max-Delbrück Center, Berlin-Buch, Germany

Carmen Birchmeier, Max-Delbrück Center, Berlin-Buch, Germany

Manuela Schmidt, MPI, Göttingen, Germany

Ewan St.J. Smith, Cambridge University, UK