Dr. AMIT AGARWAL

1) General information

Date of birth: 13 September, 1980
Gender: Male
Address: Heidelberg University
Institute of Anatomy and Cell Biology
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Position: Chica and Heinz Schaller Research Group Leader
Children: Two (* 2012, * 2015)
Parental leave, if applicable: None

2) University training and degree

2003 - 2005 Master of Science (M.Sc.) in Neuroscience, International Max-Planck Research School for Neurosciences and Georg-August University, Göttingen, Germany

1999 - 2003 Bachelor of Technology (B.Tech.), Biotechnological Engineering G.G.S. Indraprastha University, New Delhi, India

3) Advanced academic qualifications

2008 Doctoral dissertation in Neuroscience, Mentor: Prof. Klaus-Armin Nave, Department of Neurogenetics, Max-Planck Institute of Experimental Medicine and Georg-August University, Göttingen, Germany

4) Postgraduate professional career

Since 2018 Chica and Heinz Schaller Research Group Leader
Institute of Anatomy and Cell Biology, Heidelberg University, Germany

2016 - 2017 Junior Faculty, Department of Neuroscience, Johns Hopkins University, Baltimore, USA

2010 - 2016 Post-doctoral fellow with Prof. Dwight Bergles, Department of Neuroscience, Johns Hopkins University, Baltimore, USA

2008 - 2010 Post-doctoral fellow with Prof. Klaus-Armin Nave, Department of Neurogenetics, Max-Planck Institute of Experimental Medicine, Göttingen, Germany

5) Other

Awards and honours:

2017 Chica and Heinz Schaller Research Group Leader, Heidelberg, Germany

2016 - 2018 NARSAD Young Investigator Award, Brain & Behaviour Research Foundation, USA

2016 Anuradha Rao Memorial Award, Cell Press/Society for Neuroscience, USA

2016 W. Barry Wood Jr. Young Investigator Award, Johns Hopkins University, USA

2016	FENS-IBRO/PERC Travel Award, FENS Forum 2016, Copenhagen, Denmark
2011 - 2014	National Multiple Sclerosis Society Post-doctoral Fellowship, New York, USA
2004 - 2008	Max-Planck Society Stipend for Graduate Students
2003 - 2004	International Max-Planck Research School Stipend, Göttingen, Germany
1999 - 2003	University Scholarship, G. G. S. Indraprastha University, Delhi, India

Editorial boards:

Since 2019	Associate Editor, Frontiers in Cellular Neuroscience, Switzerland.

6) Publications

A)

Streich L, Boffi J, Wang L, Alhalaseh K, Barbieri M, Rehm R, Deivasigamani S, Gross C, Agarwal A, Prevedel R. High-resolution structural and functional deep brain imaging using adaptive optics three-photon microscopy. **Nature Methods** 18, 1253–1258, 2021.

Escartin C, Galea E, Lakatos A, O'Callaghan JP, Petzold GC, Serrano-Pozo A, Steinhäuser C, Volterra A, Carmignoto G, Agarwal A, Allen NJ, Araque A, Barbeito L, Barzilai A, Zorec R, Sofroniew MV, Verkhratsky A et al. Reactive astrocyte nomenclature, definitions, and future directions. **Nature Neuroscience**; 24(3):312-325, 2021.

Ye L, Orynbayev M, Zhu X, Lim EY, Dereddi RR, Agarwal A, Bergles DE, Bhat MA, Paukert M. Ethanol abolishes vigilance-dependent astroglia network activation in mice by inhibiting norepinephrine release. **Nature Communications**; 11(1):6157, 2020.

Semyanov A., Henneberger C., and Agarwal A**.** Making sense of astrocytic calcium signals – from acquisition to interpretation. **Nature Reviews Neuroscience**; (10):551-564, 2020.

Agarwal A, Wu PH, Hughes EG, Fukaya M, Tischfield MA, Langseth AJ, Wirtz D, Bergles DE. Transient Opening of the Mitochondrial Permeability Transition Pore Induces Microdomain Calcium Transients in Astrocyte Processes. **Neuron**; 93(3):587-605.e587, 2017.

Kim YS, Anderson M, Park K, Zheng Q, Agarwal A, Gong C, Saijilafu, Young L, He S, LaVinka PC, Zhou F, Bergles D, Hanani M, Guan Y, Spray DC, Dong X. Coupled Activation of Primary Sensory Neurons Contributes to Chronic Pain. **Neuron**; 91(5):1085-1096, 2016.

Wang HC, Lin CC, Cheung R, Zhang-Hooks Y, Agarwal A, Ellis-Davies G, Rock J, Bergles DE. Spontaneous Activity of Cochlear Hair Cells Triggered by Fluid Secretion Mechanism in Adjacent Support Cells. **Cell**; 163(6):1348-1359, 2015.

Otsu Y, Couchman K, Lyons DG, Collot M, Agarwal A, Mallet JM, Pfrieger FW, Bergles DE, Charpak S. Calcium dynamics in astrocyte processes during neurovascular coupling. **Nature Neuroscience**; 18(2):210-218, 2015.

Paukert M*, Agarwal A*, Cha J, Doze VA, Kang JU, Bergles DE. Norepinephrine controls astroglial responsiveness to local circuit activity. **Neuron**; 82(6):1263-1270, 2014.

Brinkmann BG*, Agarwal A*, Sereda MW, Garratt AN, Muller T, Wende H, Stassart RM, Nawaz S, Humml C, Velanac V, Radyushkin K, Goebbels S, Fischer TM, Franklin RJ, Lai C, Ehrenreich H, Birchmeier C, Schwab MH, Nave KA. Neuregulin-1/ErbB signaling serves distinct functions in myelination of the peripheral and central nervous system. **Neuron**; 59(4):581-595,2008.

* Equally contributing authors

B) other publications**:** -

C) Patents: -