DR. MANUELA SIMONETTI

Date of birth:	08 August, 1979
Gender:	Female
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Email:	manuela.simonetti@pharma.uni-heidelberg.de
Position:	Senior Scientist, Institute of Pharmacology
Children:	Three (* 2012, * 2014, *2018)
Maternity leave:	2013, 2014, 2018

CURRICULUM VITAE

University education

2004	Laurea (Master Degree) in Medical Biotechnology, University of Trieste (Italy) and Oncologic Reference Center (CRO) Aviano, Italy
2001	Internship (Supervisor Prof. M. Maio) Immunology Department, Oncologic Reference Center (CRO) Aviano, Italy
1998 - 2004	Undergraduate student in Medical Biotechnology, Medical Faculty University of Trieste (Italy)

Scientific degrees

2008	PhD in Neuroscience (Supervisor– Prof. A. Nistri), International School for Advanced Studies (SISSA/ISAS), Trieste, Italy Doctoral dissertation, Ph.D. Subject: '"Morphologic, genomic and functional studies of trigeminal sensory neurons indicate diversity in regulation of nociceptive mechanisms by environmental conditions: relevance to migraine pain"

Professional experience

Since 2011	Postdoc (Mentor - Prof. R. Kuner), Pharmacology Institute, University of Heidelberg, Heidelberg, Germany
2009 - 2011	Postdoctoral CellNetworks Fellow (Mentor - Prof. R. Kuner), Pharmacology Institute, University of Heidelberg, Heidelberg, Germany
2008 - 2009	Postdoctoral Fellow (Mentor - Prof. A. Nistri),), Neurobiology department, International School for Advanced Studies (SISSA), Trieste, Italy
2004 - 2008	PhD program, International School for Advanced Studies (SISSA), Trieste, Italy
2004 - 2004	Research assistant (Mentor- Prof.S.Crovella), Institute for Maternal and Child Health, IRCCS Burlo Garofolo , Trieste, Italy

Academic functions and awards:

Awards and honors:

2019 - 2021	Olympia Morata programme fellowship of Heidelberg University
2016	Offered Associated Professor position in Neurobiology, Department of Biology, Southern University of Science and Technology (SUSTech), Shenzhen, China.
2014 - 2016	Innovation Fund FRONTIER grant, University of Heidelberg
2013	First Prize for Basic Research, German Society for the Study of Pain (DGSS)
2009 - 2011	Postdoctoral Fellowship Cluster of Excellence CellNetworks, University of Heidelberg

A) Publications:

Paldy E, Simonetti M, Worzfeld T, Bali KK, Vicuna L, Offermanns S, Kuner R. Semaphorin 4C Plexin-B2 signaling in peripheral sensory neurons is pronociceptive in a model of inflammatory pain. **Nature Communications** 2017;8(1):176.

Vicuna L, Strochlic DE, Latremoliere A, Bali KK, Simonetti M, Husainie D, Prokosch S, Riva P, Griffin RS, Njoo C, Gehrig S, Mall MA, Arnold B, Devor M, Woolf CJ, Liberles SD, Costigan M, Kuner R. The serine protease inhibitor SerpinA3N attenuates neuropathic pain by inhibiting T cell-derived leukocyte elastase. **Nature Medicine** 2015;21(5):518-523.

Simonetti M, Agarwal N, Stosser S, Bali KK, Karaulanov E, Kamble R, Pospisilova B, Kurejova M, Birchmeier W, Niehrs C, Heppenstall P, Kuner R. Wnt-Fzd signaling sensitizes peripheral sensory neurons via distinct noncanonical pathways. **Neuron** 2014;83(1):104-121.

Simonetti M*, Hagenston AM*, Vardeh D*, Freitag HE*, Mauceri D*, Lu J, Satagopam VP, Schneider R, Costigan M, Bading H, Kuner R. Nuclear calcium signaling in spinal neurons drives a genomic program required for persistent inflammatory pain. **Neuron** 2013;77(1):43-57.

Gnanasekaran A, Bele T, Hullugundi S, Simonetti M, Ferrari MD, van den Maagdenberg AM, Nistri A, Fabbretti E. Mutated CaV2.1 channels dysregulate CASK/P2X3 signaling in mouse trigeminal sensory neurons of R192Q Cacna1a knock-in mice. **Molecular Pain** 2013;9:62.

Hagenston AM and Simonetti M. Neuronal calcium signaling in chronic pain. **Cell Tissue Res** (2014) 357:407–426

Nair A*, Simonetti M*, Fabbretti E, Nistri A. The Cdk5 kinase downregulates ATP-gated ionotropic P2X3 receptor function via serine phosphorylation. **Cellular and Molecular Neurobiology** 2010;30(4):505-509.

Nair A*, Simonetti M*, Birsa N, Ferrari MD, van den Maagdenberg AM, Giniatullin R, Nistri A, Fabbretti E. Familial hemiplegic migraine Ca(v)2.1 channel mutation R192Q enhances ATP-gated P2X3 receptor activity of mouse sensory ganglion neurons mediating trigeminal pain. **Molecular Pain** 2010;6:48.

Simonetti M, Giniatullin R, Fabbretti E. Mechanisms mediating the enhanced gene transcription of P2X3 receptor by calcitonin gene-related peptide in trigeminal sensory neurons. **The Journal of Biological Chemistry** 2008;283(27):18743-18752.

Simonetti M, Fabbro A, D'Arco M, Zweyer M, Nistri A, Giniatullin R, Fabbretti E. Comparison of P2X and TRPV1 receptors in ganglia or primary culture of trigeminal neurons and their modulation by NGF or serotonin. **Molecular Pain** 2006;2:11.

* Equally contributing authors

B) Patents:

Application:

1. U30594WO: Selective inhibitors of neutrophil elastase for treating neuropathic pain and chronic pain states harbouring a neuropathic component

Scientific collaborations beyond the planned Collaborative Research Centre

None