JULIANNE McCALL

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EDUCATION

PhD in Cellular & Molecular Biology (2015, 1.0, Magna Cum Lauda)
Heidelberg University Laboratory for Neuroregeneration, Prof. Dr. Armin Blesch
Title: "Transcriptional regulation of central nervous system axonal regeneration"

Master of Science in Biomedical Sciences (2010)
University of California, San Diego, Advisor: Dr. Armin Blesch, GPA 3.88/4.0
Thesis title: "Roles of NO/cGMP in regenerative axonal growth programs"

Bachelor of Science in Neuroscience (2006)
Denison University, Granville, Ohio, Magna Cum Laude, GPA 3.7/4.0

PUBLICATIONS

McCall J, Kienle E, Uhrig S, Grimm D, Blesch A. Improved AAV gene transfer to dorsal root ganglion neurons by targeted peptide display, *in preparation*.

McCall J, Nicholson L, Mosch M, Weidner N, Blesch A. Overexpression of GADD45g stimulates in vitro regeneration of adult rat sensory neurons on peripheral and central nervous system substrates, *in preparation*.

McCall J, Vetter K, Möller A. Neuroscience education in the high school classroom; a hands-on sensory workshop with Miraculin tablets, *in preparation*.

Dean K*, Fields A*, Geer M*, King E*, Lynch B*, Manohar R*, McCall J*, Palozola K*, Zhang Y*, Liebl E. An allele of *sequoia* dominantly enhances a *trio* mutant phenotype to influence *Drosophila* larval behavior, (*signifies equal contribution). PLoS One (2013) 8(12): e84149.

McCall J, Weidner N, Blesch A. Neurotrophic factors in combinatorial approaches for spinal cord regeneration. Cell and Tissue Research (2012) 349(1):27-37.

McCall J, Nicholson L, Weidner N, Blesch A. Optimization of adult sensory neuron electroporation to study mechanisms neurite growth. Frontiers in Molecular Neuroscience (2012) 5(11).

Paquet-Durand, F, Sanges, D, McCall J, Silva J, van Veen T, Ekström P. Photoreceptor rescue and toxicity induced by different calpain inhibitors. Journal of Neurochemistry (2010) 115(4):930-40.

McCall JR, Mead KS. Structural and functional changes in regenerating antennules in the crayfish *Orconectes sanborni*. Biological Bulletin (2008) 214(2):99-110.

Sachs BD, Baillie GS, McCall JR, Passino MA, Schachtrup C, Wallace DA, Dunlop AJ, MacKenzie KF, Klussmann E, Lynch MJ, Sikorski SL, Nuriel T, Tsigelny I, Zhang J, Houslay MD, Chao MV, Akassoglou K. p75 neurotrophin receptor regulates tissue fibrosis through inhibition of plasminogen activation via a PDE4/cAMP/PKA pathway. Journal of Cell Biology (2007) 177(6):1119-32.

EXPERIENCE

Online courses in e-Learning and Science Education
Completion of four courses offered by Stanford University, University of Edinburgh and Lynda.com on developing online classrooms and interactive learning workshops, cloud-based collaboration tools, and e-learning strategies.

American Journal Experts
Junior Editor, 2010-2016 (intermittently), certified English-language editor of academic research for industry standards in academic journal review

Salk Institute - UCSD - Burnham Institute Research Rotations
Graduate Research Student, 2007-2008, La Jolla, CA, USA; *Advisors: Dr. Fred Gage, Salk Institute; Dr. Mark Ellisman, National Center for Microscopy Imaging Research, UCSD; and Dr. Alexey Terskikh, Burnham Inst.* Established collaborations to explore neurogenesis niche of the hippocampus. Image published in Cell 132, Feb 2008.

Lund University Department of Ophthalmology
Fulbright Research Fellow, 2006-2007, Lund, Sweden
Advisor: Dr. Per Ekström. Signaling mechanisms in retinitis pigmentosa blindness disorder and pharmacological therapies using calpain inhibitors.

Denison University Department of Biology
Bachelor Honors Thesis Student Researcher, 2004-2006, Granville, Ohio, USA
Advisor: Dr. Kristina Mead -" A Novel Method to Study Nerve Regeneration in Crayfish Olfactory System" Highest score received for Bachelor Honors Thesis.

University of California, San Diego Department of Pharmacology
Research Assistant, Summer Undergraduate Research Fellowship, 2005, USA
Advisor: Dr. Katerina Akassoglou. p75 neurotrophin receptor in CNS injury.

Stanford University Ophthalmic Tissue Engineering Laboratory
Student Research Assistant, Summer Internship, 2004, Palo Alto, CA, USA
Advisor: Dr. Harvey Fishman. Development of implantable retinal chips.

SELECT PRESENTATIONS

McCall J, Motsch M, Ruf P, Blesch A, Transcriptional mechanisms regulating axonal regeneration after spinal cord injury. Heidelberg University Interdisciplinary Neurosciences Annual Meeting, Schöntal, Germany, 2014

McCall J, Kienle E, Grimm D, Blesch A, Development of chimeric AAV vectors for retrograde transport and sensory neuron transduction. Society for Neuroscience Annual Meeting, San Diego, USA, 2013

J. McCall, Graduate school community outreach programs in neuroscience: Classroom workshops and an annual national science competition. Society for Neuroscience Annual Meeting, San Diego, USA, 2013

McCall J, Public Scientific Literacy Programs. Comm4Biotech Conference on Science Communication, German Biotechnology Student Initiative and French New Generation of Biotechnologists, Heidelberg, Germany, Nov. 2013

McCall J and R van der Torren, Fostering Public Scientific Literacy. Fulbright Association Annual Meeting, Washington, DC, USA, 2013

McCall J, Transcriptional Mechanisms of Axonal Regeneration. Invited Speaker, Annual Fall Meeting of the International Graduate School in Molecular Medicine Ulm, Ulm, Germany, 2012

McCall J, Transcriptional mechanisms regulating axonal regeneration after spinal cord injury. Guest talk for the Heidelberg University Centre for Organismal Studies, Heidelberg, Germany, 2012

McCall J, Nicholson LK, Blesch A. An optimized neuronal electroporation transfection protocol to study intrinsic mechanisms of axonal regeneration *in vitro*. Heidelberg University Neurosciences Meeting, Schöntal, Germany, 2011.

McCall J, Spinal Cord Injury Fundamentals. The San Diego Brain Injury Foundation, Encinitas, California, USA, 2010

McCall J, Paquet-Durand F, Ekström P. The differential effects of calpain inhibition on the retina as a whole. RetNet Annual Mtg, Budapest, Hungary 2007

McCall J, Murch C, Mead K. Structural dynamics of the regenerating peripheral olfactory system in the crayfish *Orconectes sanbornii*. Ohio Academy of Science Annual Meeting, Columbus, Ohio, 2006.

McCall J, Liebl E. Phenotypic analysis of dominant enhancers of the *trio* mutant phenotype in *Drosophila*. Ohio Academy of Science Annual Meeting, 2005.

AWARDS

Landesgraduiertenförderungsgesetz Graduate Fellowship, 3-year funding support of graduate research by the state of Baden-Württemberg. 2012-2014.

Federation of European Neuroscience Societies Neuroscience Outreach Grant, organized science educational programs for public audiences, 2014.

Heidelberg University Biosciences Student Representative, Academic Advisory Board, CellNetworks Research Cluster, 2013.

DAAD International Student of the Year, scholarship recipient of Heidelberg University, awarded for academic achievements and social engagement, 2011.

Howard Hughes Medical Institute Med-Into-Grad Fellowship, clinical training in Neurosurgery and Neurology, VA & UCSD Hospitals, 2009-2010.

National Institutes of Health Predoctoral Genetics Training Grant, 2008-10.

Association for Women in Science, San Diego Chapter Scholarship, for science outreach and academic contribution to neuroscience research, 2008.

U.S. Fulbright Research Grant, Sweden, 1-year fellowship to conduct neuroscience research and engage with US foreign policy, 2006-2007.

Two-time U.S. President's Gold Medal Award for Service, 2004-2006.

Denison University Biology Department Senior Fellow, 2005-2006.

Denison Univ. Heritage Scholarship, awarded for academic record, 2002-06.

International "Brain Bee" Neuroscience Competition, 3rd Place, 2002.

Tylenol National Scholarship, granted to 10 high school seniors, 2002.

COMMUNITY ENGAGEMENT

International "Brain Bee" Neuroscience Education Program, Director of the 2013 and 2016 International Brain Bee Neuroscience Competitions for Students, Founder of Germany, San Diego, & Central Ohio contests, 2005-16.

TEDx Conference Organizer, Founder and Lead Curator of TEDxFulbright 2012-2016; events in Los Angeles, Washington DC, Dublin, Frankfurt, Boston.

HBIGS International Graduate School Student Speaker, member of the Board, founder of the Student Leadership Council, 2011-2013.

Heidelberg Neuro Outreach, Founder, organized and conducted neuroscience workshops in schools & science literacy presentations at conferences, 2010-15.

Autism Speaks, San Diego Chapter Science Ambassador, bridging research and community. Initiated the "Research Tent" at the annual Autism Walk, which has been implemented in other Walks across the USA. 2007-10.

University Science Teaching Assistantships, Denison University Biology Department courses: Genetics, Molecular Biology, and Zoology, 2003-06.

HOPE for Autism, Chair, coordinated free behavioral therapy for 22 children with autism in low-income areas by 120+ trained volunteers, 2002-06.