Harrison E. Grace

University System of Georgia MD/PhD Program
University of Georgia
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Education

Ph.D. 2015- Present (In Progress)	**University of Georgia** Neuroscience Ph.D. Candidate Biomedical and Health Sciences Institute Advisor: Michael Tiemeyer, Ph.D. Complex Carbohydrate Research Center
2013-2015	**University of Georgia** Neuroscience Ph.D. Program Biomedical and Health Sciences Institute Advisor: Franklin West, Ph.D. Regenerative Bioscience Center
M.D. 2011-Present (In Progress)	**Medical College of Georgia** University System of Georgia MD/PhD Program
B.S. 2007-2011	**University of Georgia** Biochemistry and Molecular Biology

Publications

Lau VW, Platt SR, **Grace HE,** Baker EW, West FD. (2018) "Human iNPC therapy leads to improvement in functional neurologic outcomes in a pig ischemic stroke model." *Brain and Behavior*, In Publication.

Baker EW, Platt SR, Lau VW, **Grace HE**, Holmes SP, Wang L, Duberstein KJ, Howerth EW, Kinder HA, Stice SL, Hess DC, Mao H, West FD. (2017) "Induced Pluripotent Stem Cell-Derived Neural Stem Cell Therapy Enhances Recovery in an Ischemic Stroke Pig Model." *Nature Scientific Reports*, 7, article number: 100075.

Buckley KM, Hess DL, Sazonova IY, Periyasamy-Thandavan S, Barrett JR, Kirks R, **Grace H**, Kondrikova G, Johnson MH, Hess DC, Schoenlein PV, Hoda MN, Hill WD. (2014) "Rapamycin up-regulation of autophagy reduces infarct size and improves outcomes in both permanent MCAL, and embolic MCAO, murine models of stroke". *Exp Transl Stroke Med*, 6: 8.

Presentations

Grace H, Porterfield M, Schwartz C, and Tiemeyer M. "Altered Neural Progenitor Cell Glycosylation and Development in Autism Patient Derived Neural Cultures." Oral Presentation and Poster presented at the 15th annual International Student Seminar at Kyoto University, Kyoto, Japan, February 2017.

Grace H, Rosenbalm K, Kulik M, Porterfield M, Dalton S, Pierce M, and Tiemeyer M. "Comparative Glycomic Analysis of Human Stem Cells and Derived Cell Types." Poster presented at 31st Annual MD/PhD National Student Conference, Keystone CO., July 2015.

Grace H, West F, Lesnefsky E, Rao R, and Iyer S. "Reprogramming of Leigh's fibroblasts into induced pluripotent stem cells." Poster at Mitochondrial Medicine, Herndon, VA, June 2015.

Grace H, Henderson WM, Lau V, Nguyen T, Platt SR, Holmes SP, Howerth EW, Reno LR, Duberstein KJ, Stice SL, and West FD. "Gray and White Matter Brain Metabolomic Profiling in a Porcine Model of Stroke with Human Induced Neural Stem Cell Treatment". Poster presented at ASCI/AAP Joint Meeting, Chicago, IL, April 2015.

Grace H, Henderson WM, Lau V, Nguyen T, Platt SR, Holmes SP, Howerth EW, Reno LR, Duberstein KJ, Stice SL, and West FD. "Metabolomic Profiling of Gray and White Matter Following Stroke and hiPSC Derived Neural Stem Cell Treatment". Poster presented at Regenerative Engineering and Medicine, Athens, GA, August 2014.

Mehta N, Marshall M, **Grace H**, Nguyen K, Sharrow M, Tiemeyer M. "A behavior-based screen for genes that modulate neural-specific glycosylation in Drosophila melanogaster". Poster presented at Society for Glycobiology, St.Pete Beach, FL, November 2010. (Abstract published in Glycobiology 2010 vol. 20;11, 1482)

Professional Affiliations

American Physician Scientist Association	**2012-Present**
American Medical Association	**2011-Present**
President, Biology and Life Sciences Association at the University of Georgia	**2010-2011**
Member, Society for Glycobiology	**2010**

Awards and Honors

Departmental Assistantship, Animal Dairy Science Department, University of Georgia, 2013-2015
Graduated Magna Cum Laude, University of Georgia, 2011
Graduated Honor Program with High Honors, University of Georgia, 2011
Phi Beta Kappa inductee, 2011
Dean's List and Presidential Scholar
HOPE Scholarship recipient, 2007-2011

Research Experience

2015-2016 **Graduate Student**
Complex Carbohydrate Research Center, UGA
Michael Tiemeyer, PhD
- ❖ Glycomic Profiling of Human Stem Cells and Cell Type Specific Glycosylation.
- ❖ Autism Spectrum Disorder Patient iPSC in-vitro Disease Modelling.

2013-2015 **Graduate Student**
Regenerative Bioscience Center, UGA
Franklin West, Ph.D.
- ❖ Porcine Stroke Model for Evaluation of Neural Stem Cell Therapy.
- ❖ Generation of Human Leigh's Syndrome Patients iPSC in-vitro Disease Model.

2012 **Medical Student**
Medical College of Georgia
William Hill, Ph.D.
- ❖ Assessing Autophagy in Stroke Damaged Mouse Neural Tissue.

2010 **Summer Research Fellowship**
SUNY Downstate Medical Center
A. Ivan Hernandez, Ph.D.
- ❖ Molecular Mechanisms of Memory: PARP-1 Localization in Rat Hippocampus.

2008-2011 **Undergraduate Research Assistant**
Complex Carbohydrate Research Center, UGA
Michael Tiemeyer, Ph.D.
- ❖ Exploring the Mechanisms of Neuron Specific Glycosylation in *Drosophila melanogaster*

2006 **Student Research Assistant**
Georgia Tech Research Institute
Michael Rodgers, PhD
- ❖ Continuous Atlanta Fleet Evaluation (CAFE Program) Automobile Emissions Monitoring