

John Douglass, Ph.D.

Assistant Professor of Biology
Seattle Pacific University
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EDUCATION

- 2014 – 2017 University of Washington, Seattle, WA
Division of Metabolism, Endocrinology & Nutrition
Department of Medicine
Postdoctoral Adviser: Joshua P. Thaler, M.D., Ph.D.
- 2008 – 2014 Rutgers, The State University of New Jersey, New Brunswick, NJ
Ph.D. in Nutritional Sciences
Dissertation Adviser: Judith Storch, Ph.D.
Graduation date: May 2014
- 1999 - 2003 Grove City College, Grove City, PA
B.S. Biochemistry

RESEARCH EXPERIENCE

- 2020 – 2021 Seattle Pacific University
Co-Investigator with Dr Philip Baker and Dr. Keyne Law
Neuroinflammation and stress-mediated changes in decision-making related to suicide
- 2019 – 2020 Seattle Pacific University
Principal Investigator
Central metabolic regulation of neuroinflammation by fructose
- 2014 - 2017 University of Washington
Senior Postdoctoral Fellow
Adviser: Joshua P. Thaler
Co-advisor: Michael W. Schwartz
Role of glial inflammation in obesity and hypothalamic dysfunction
- 2008 - 2014 Rutgers, The State University of New Jersey
Ph.D. dissertation research
Adviser: Judith Storch
Neutral lipid metabolism in obesity
- 2003 – 2005 University of Utah
Research Associate
Principal Investigator: Chris Hill
Three-dimensional analyses of proteasome and HIV capsid proteins

2001-2002 Grove City College
Undergraduate research project
Adviser: Charles E. Kriley
Synthesis of novel transition metal organometallic complexes

2000 University of Utah
Summer research internship
Principal Investigator: Wesley Sundquist
Three-dimensional analyses of HIV assembly proteins

FELLOWSHIPS AND AWARDS

2017 Future of Science Fund Scholarship
Keystone Symposia

2016 Trainee of the Year
Division of Metabolism, Endocrinology & Nutrition
University of Washington

2015 - 2017 Ruth L. Kirschstein National Research Service Award
NIDDK, National Institutes of Health
(PI: John Douglass)

2014 - 2015 Institute Training Grant
Nutrition and Obesity Research Center, University of Washington

2013 George M. Carman Prize in Lipids

2013 Robert T. Rosen Memorial Award

2013 Special Study Travel Award, Graduate School of New Brunswick

2013 Conference Scholarship
DZD Diabetes School & International Symposium on Insulin Receptors

2011 Junior Scientist Travel Award
Gordon Research Conference: Cell & Molecular Biology of Lipids

2011-2013 Graduate Assistantship
R01: Fatty acid transport in the intestine (PI: Judith Storch)
NIDDK, National Institutes of Health

2009-2011 Graduate Assistantship
Rutgers University & TNO Systems, Inc. Collaborative Project
(PI: Judith Storch)

PUBLICATIONS

1. Valdearcos M*, **Douglass JD***, Robblee MM, Dorfman MD, Stifler DR, Bennet ML, Gerritse I, Fasnacht R, Barres BA, Thaler JP, Koliwad SK. Microglial inflammatory signaling orchestrates the hypothalamic immune response to dietary excess and mediates obesity susceptibility. *Cell Metabolism* (2017). *Co-first authors.
2. **Douglass JD**, Dorfman MD, Fasnacht RD, Shaffer LD, Thaler JP. Astrocyte IKK β /NF- κ B signaling is required for diet-induced obesity and hypothalamic inflammation. *Molecular Metabolism* (2017).
3. Dorfman MD, Krull JE, **Douglass JD**, Fasnacht R, Lara-Lince F, Meek TH, Shi X, Damian V, Nguyen HT, Matsen ME, Morton GJ, Thaler JP. Sex differences in microglial CX3CR1 signaling determine obesity susceptibility in mice. *Nature Communications* (2017).
4. **Douglass JD**, Dorfman MD, Thaler JP. Glia: silent partners in energy homeostasis and obesity pathogenesis. *Diabetologia* (2017).
5. **Douglass JD**, Zhou YX, Wu A, Zadroga JA, Gajda AM, Lackey AI, Lang W, Chevalier KM, Sutton SW, Zhang SP, Flores CM, Connelly MA, Storch J. Global deletion of monoacylglycerol lipase in mice delays lipid absorption and alters energy homeostasis and diet-induced obesity. *Journal of Lipid Research*. (2015).
6. Maestre R, **Douglass JD**, Kodukula S, Medina I, Storch J. Alterations in the intestinal assimilation of oxidized PUFAs are ameliorated by a polyphenol-rich grape seed extract in an in vitro model and CACO-2 Cells. *Journal of Nutrition* (2013).
7. Chon SH, **Douglass JD**, Zhou YX, Malik N, Dixon JL, Brinker A, Quadro L, Storch J. Over-expression of monoacylglycerol lipase (MGL) in small intestine alters endocannabinoid levels and whole body energy balance, resulting in obesity. *PLoS ONE* (2012).
8. **Douglass JD**, Malik N, Chon SH, Wells K, Zhou YX, Choi AS, Joseph LB, Storch J. Intestinal mucosal triacylglycerol accumulation secondary to decreased lipid secretion in obese and high fat fed mice. *Frontiers in Physiology* (2012).

PREPARED MANUSCRIPTS

1. **Douglass JD**, Valdearcos M, Dorfman MD, Fasnacht RD, Koliwad SK, Thaler JP. Central CX3CR1-expressing myeloid cells protect against peripheral glucose intolerance during diet-induced obesity pathogenesis. (In preparation)
2. **Douglass JD**, Dias R, Fasnacht RD, Thaler JP. Microglia NF- κ B is required for anti-inflammatory resolution of LPS-induced sickness behaviors. (In preparation)

3. **Douglass JD**, Zhou YX, Wu A, Lang W, Chevalier KM, Sutton SW, Zhang SP, Macielag MJ, Zhu B, Flores CM, Connelly MA, Storch J. Anti-nociceptive effects of a reversible inhibitor of monoacylglycerol lipase in mice without alterations in central energy homeostasis. (In preparation)

SELECTED PRESENTATIONS

- 2017 *Astrocyte IKK β /NF- κ B signaling is required for diet-induced obesity and hypothalamic inflammation.* Keystone Symposia: Neural Control of Appetite, Metabolism & Weight, Copenhagen, Denmark (poster)
- 2016 *Astrocyte nuclear factor kappa B is an essential pathway for mediating diet-induced obesity and neuroinflammation.* Diabetes Research Center Research, South Lake Union, Seattle, WA (poster)
- 2016 *Microglial inflammatory signaling promotes food intake and weight gain during high-fat diet feeding.* Keystone Symposia: Obesity and Adipose Tissue Biology, Banff, Canada (poster)
- 2016 *Glial-specific IKK β deletion and its effect on diet-induced obesity.* Research Training Conference, Division of Metabolism, Endocrinology & Nutrition, Seattle, WA (talk)
- 2015 *CX3CR1-mediated regulation of energy balance by microglia.* Keystone Symposia: Neural Control of Metabolic Physiology and Disease, Snowbird, UT (poster)
- 2013 *Monoacylglycerol lipase controls energy homeostasis in rodents.* International Symposium on Insulin Receptors and Insulin Action, Barcelona, Spain (poster)
- 2013 *Monoacylglycerol lipase ablation alters energy homeostasis and aspects of diet-induced obesity.* Pioneers in Endocrinology Workshop, Rutgers University, Piscataway, NJ (poster)
- 2011 *Monoacylglycerol lipase gene deletion alters the metabolic state of lean and obese mice.* Janssen Research and Development, Spring House, PA (talk)
- 2011 *Intestinal mucosal triacylglycerol lipid accumulation and delayed lipid transport in obesity.* Gordon Research Conference: Cell and Molecular Biology of Lipids, Waterville Valley, NH (poster)
- 2011 *Intestinal mucosal lipid content and lipid transport alterations during obesity.* Nutrition, Endocrinology & Animal Biosciences Symposium, Rutgers University, NJ (poster)

2010 *Macrophage fatty acid binding protein 4 controls systemic metabolism through zinc-alpha-2 glycoprotein-mediated lipolysis.* Rutgers Center for Lipid Research Meeting, New Brunswick, NJ (talk)

TEACHING EXPERIENCE AND TRAINING

- 2019-2021 Attended training for developing diversity in higher education. This included SPU-hosted seminars (Diversity 101, Fair Play Workshop, Race and Pedagogy FLAGG group) and the UW-sponsored "Experiences of Black STEM in the Ivory."
- 2018-2021 Assistant Professor of Chemistry & Biochemistry, Seattle Pacific University. Full-time instructor for Scientific Writing, General Chemistry I, General Chemistry III, Inorganic Qualitative Analysis, and Survey of Biological Chemistry with accompanying lab sections for all science courses.
- 2016 Visiting instructor for Psychopharmacology, Seattle University. I lectured on the role of neuropeptides in synaptic transmission and led group learning activities.
- 2015 Attended the Future Faculty Fellows Workshop at University of Washington. This two-day workshop focused on transitioning from postdoctoral to faculty positions in science. Several sessions were dedicated to scientific teaching methods with a focus on active learning strategies.
- 2015 Guest speaker, SMDEP Bioscience Experience, University of Washington. This course was designed to give undergraduates exposure to biomedical research and hear firsthand experience from researchers.
- 2010 Small Group Leader, Nassau Presbyterian Church, Princeton NJ. I led sexual education courses and group discussion for middle school students.
- 2007-2008 Youth Director, American Protestant Church in Bonn, Germany. My responsibilities included regular preaching in worship services, weekly fellowship activities, leading the youth worship band, organizing mission trips and service projects, and guiding faith formation for K-12.
- 2006-2007 Mathematics and music tutor, Princeton, NJ. Instructed in guitar performance, music theory, trigonometry, and pre-calculus.
- 2005-2006 Reproductive Health Educator, Planned Parenthood of Utah, Salt Lake City, UT. I taught weekly 1-hour classes at city juvenile detention centers. Subjects focused on reproductive biology and healthy practices.

- 2005 Nutrition Educator, Children's Museum of Utah, Salt Lake City, UT. I led weekly classes in healthy eating habits and other nutritional practices in courses designed for young children and their parents.
- 2001 Organic chemistry tutor, Grove City College, Grove City, PA. I taught small group remedial sessions in organic chemistry and test preparation.

ACADEMIC SERVICE

- 2016 Peer Reviewer, *Pharmacology & Therapeutics*
- 2016 Peer Reviewer, *Biochimica et Biophysica Acta – Lipids and Metabolism*
- 2013 Graduate Program Representative, Nutritional Sciences Seminar Series, Rutgers University
- 2011 President, Nutritional Sciences Graduate Student Organization, Rutgers University