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Education

- 2009-2016 Ph.D., **University of Wisconsin**, Madison, WI, Molecular and Cellular Pharmacology
Doctoral Program.
2005-09 B.S., **Southern Illinois University**, Carbondale, IL, Chemistry.

Research Experience

- 2016-pres. Postdoctoral Research Fellow
Project: *Multi-level mitochondrial surveillance in neuronal homeostasis and neurodegeneration*, University of Pennsylvania, Department of Physiology, Philadelphia, PA.
Principle Investigator: Erika Holzbaur, Ph.D.
2010-2016 Graduate Research Fellow
Project: *The biophysics of synaptotagmin-1 action*, University of Wisconsin, Department of Neuroscience, Madison, WI.
Principle Investigator: Edwin Chapman, Ph.D.
Committee Members: Meyer Jackson, Ph.D.; Jon Audhya, Ph.D.; Guy Groblewski, Ph.D.; and Jim Weisshaar, Ph.D.
2008-09 Undergraduate Researcher
Project: *Investigating reversible FRET-based biological sensors*, Southern Illinois University, Department of Chemistry and Biochemistry, Carbondale, IL.
Principle Investigator: Punit Kohli, Ph.D.
2008 Research Experiences for Undergraduates
Project: *Investigation of reversible fluorescence resonance energy transfer through the use of polydiacetylene liposome solutions*, Southern Illinois University, Department of Chemistry and Biochemistry, Carbondale, IL.
Principle Investigator: Punit Kohli, Ph.D.

Peer-reviewed Publications

- Evans, C.S.** and E.L.F. Holzbaur (2019) Mitophagosome acidification is rate-limiting in the maintenance of the somal mitochondrial network in neurons. (In revisions)
- Hoshino, A., Wang, W., Wada, S., McDermott-Roe, C., **Evans, C.S.**, Gosis, B., Morley, M.P., Rathi, K.S., Li, J., Li, K., Yang, S., McMannus, M., Potluri, P., Levin, M., Damrauer, S., Wallace, D.C., Holzbaur, E.L.F., Arany, Z. (2019) The mitochondrial adenine nucleotide translocator mediates mitophagy independently of its nucleotide exchange activity. *Nature*. (In press)
- Ruhl, D.A., Bomba-Warczak, E., Watson, E.T., Bradberry, M., Peterson, T.A., Basu, T., Frelka, A., **Evans, C.S.**, Briguglio, J.S., Basta, T., Stowell, M., Savas, J.N., Roopra, A., Pearce, R., Piper, R.C., and Chapman, E.R. (2019) Synaptotagmin 17 controls neurite outgrowth and synaptic physiology via distinct cellular pathways. *Nat. Commun.* Aug 6;10(1):3532. doi: 10.1038/s41467-019-11459-4.
- Evans, C.S.** and E.L.F. Holzbaur (2019) Quality control in neurons: mitophagy and other selective autophagy mechanisms. *J Mol Biol.* Jul 8. pii: S0022-2836(19)30428-0. doi: 10.1016/j.jmb.2019.06.031.
- Evans, C.S.** and E.L.F. Holzbaur (2018) Autophagy and mitophagy in ALS. *Neurobiol. Dis.* 34 S0969-9961(18), 30214-6.
- Evans, C.S.**, He, Z., Bai, H., Lou, X., Jeggle, P., Sutton, R.B., Edwardson, J.M., and Chapman, E.R. (2016) Functional analysis of the interface between the tandem C2-domains of synaptotagmin-1. *Mol. Biol. Cell.* 27(6), 979-89.

[Selected for Highlights from MBoC and considered for Paper of the Year]

Evans, C.S., Ruhl, D.A., and Chapman, E.R. (2015) An engineered metal sensor tunes the kinetics of synaptic transmission. *J. Neurosci.* 35(34):11769-79.

[Selected as featured cover art]

Roper, L.K., Briguglio, J.S., **Evans, C.S.**, Jackson, M.B., and Chapman, E.R. (2015) Sex-specific regulation of follicle-stimulating hormone secretion by synaptotagmin 9. *Nat. Commun.* 6:8645. doi:10.1038/ncomms9645.

Liu, H., Bai, H., Hui, E., Yang, L., **Evans, C.S.**, Wang, Z., Kwon, S.E., Chapman, E.R. (2014) Synaptotagmin 7 functions as a Ca²⁺-sensor for synaptic vesicle replenishment. *eLife* 3:e01524. doi: <http://dx.doi.org/10.7554/eLife.01524>.

Striegel, A.R., Biela, L.M., **Evans, C.S.**, Wang, Z., Delehoy J.B., Sutton, R.B., Chapman, E.R., and Reist, N.E. (2012) Calcium binding by synaptotagmin's C2A domain is an essential element of the electrostatic switch that triggers synchronous synaptic transmission. *J. Neurosci.*, 32(4), 1253-1260.

Hui, E., Gaffaney, J.C., Wang, Z., Johnson, C., **Evans, C.S.** and Chapman, E.R. (2011) Mechanism and function of synaptotagmin-mediated membrane apposition. *Nat. Struct. Mol. Biol.* 18(7), 813-821.

Oral Presentations

- 2018 Department of Physiology Retreat, Philadelphia, PA. "The role of Optineurin in neuronal mitophagy."
- 2017 HHMI Hanna H. Gray Program Symposium, Chevy Chase, MD. "Multi-level mitochondrial surveillance in neuronal homeostasis and neurodegeneration."
- 2017 Biomedical Postdoctoral Council Spotlight Café, Philadelphia, PA. "Multi-level surveillance in neuronal homeostasis and neurodegeneration."
- 2014 MCP Fall Seminar Series, Madison, WI. "Systematic study of the Ca²⁺ coordinating residues in synaptotagmin-1."
- 2014 11th Annual MCP Signal Transduction Symposium, Madison, WI. "Engineering a Sr²⁺ sensor for rapid synaptic vesicle exocytosis." (Selected speaker)
- 2013 MCP Fall Seminar Series, Madison, WI. "Engineering a *rapid* Sr²⁺ activated synaptotagmin-I chimera."

Poster Presentations

- 2019 Janelia Conference: Cell Biology of Neurons and Circuits II, Ashburn, VA. "The role of Optineurin in neuronal mitophagy."
- 2019 EMBO Autophagy Workshop: From Molecular Principles to Human Diseases, Crieff, Scotland, United Kingdom. "Mitophagosome acidification is rate-limiting in the maintenance of the somal mitochondrial network in neurons."
- 2018 ASCB EMBO Annual Meeting, San Diego, CA. "The role of Optineurin in neuronal mitophagy."
- 2018 Cell Biology of the Neuron Gordon Research Conference, Waterville Valley, NH. "The role of Optineurin in neuronal mitophagy."
- 2018 Mitochondrial Biology Keystone Symposia, Kyoto, Japan. "The role of Optineurin in neuronal mitophagy."
- 2017 Amyotrophic Lateral Sclerosis (ALS) & Related Motor Neuron Diseases Gordon Research Conference, Stowe, VT. "The role of ALS-associated Optineurin in mitochondrial quality control in neurons."
- 2015 Neuroscience Research Symposium, Fitchburg, WI. "An engineered metal sensor to tune synaptic kinetics."
- 2012 SciMed GRS Fellowship Poster Session, Madison, WI. "Direct evidence to illustrate the role of synaptotagmin-I in synaptic transmission."
- 2012 10th Annual MCP Signal Transduction Symposium, Madison, WI. "Direct evidence to illustrate the role of synaptotagmin-I in synaptic transmission."

Conferences/Professional Memberships

- 2019 Janelia Conference: Cell Biology of Neurons and Circuits II, Ashburn, VA. Poster Presenter
- 2019 EMBO Autophagy Workshop: From Molecular Principles to Human Diseases, Crieff, Scotland, United Kingdom. Poster Presenter
- 2018 ASCB EMBO Annual Meeting, San Diego, CA. Poster Presenter
- 2018 HHMI Scientific Meeting, Chevy Chase, VA. Attendee.
- 2018 Cell Biology of the Neuron Gordon Research Conference, Waterville Valley, NH. Poster Presenter
- 2018 Mitochondrial Biology Keystone Symposia, Kyoto, Japan. Poster Presenter
- 2017 HHMI Scientific Meeting, Chevy Chase, VA. Attendee.
- 2017 ASCB EMBO Doorstep Meeting, Philadelphia, PA. Attendee
- 2017 Amyotrophic Lateral Sclerosis (ALS) & Related Motor Neuron Diseases Gordon Research Conference, Stowe, VT. Poster Presenter
- 2017 ASCB MAC 12th Annual Junior Faculty/Postdoctoral Fellows Career Development Workshop, Seattle, WA. Attendee
- 2017 American Society for Cell Biology; Member
- 2016 6th Molecular Mechanisms of Axon Degeneration Meeting, Bar Harbor, ME. Attendee
- 2015 Society for Neuroscience; Member
- 2014 HHMI Scientific Meeting – Cell Biology, Ashburn, VA. Attendee.
- 2013 Annual Biomedical Research Conference for Minority Students (ABRCMS), Nashville, TN. Attendee and Undergraduate Research Poster Judge.
- 2013-16 American Society for Pharmacology and Experimental Therapeutics; Member.

Awards

- 2017-pres. Hanna H. Gray Fellow, Howard Hughes Medical Institute, Chevy Chase, MD.
- 2016-17 NIH Training Grant Postdoctoral Fellow, Center for Neurodegenerative Disease Research, University of Pennsylvania, Philadelphia, PA.
- 2016 Jerzy Rose Award Recipient, Department of Neuroscience, University of Wisconsin, Madison, WI. (Award for most outstanding graduate thesis in Neuroscience at the University of Wisconsin-Madison)
- 2012-14 PhRMA Foundation Pharmacology/Toxicology PreDoctoral Fellow, PhRMA Foundation, Washington, DC.
- 2010-11 NIH Training Grant PreDoctoral Fellow, Molecular and Cellular Pharmacology Program, University of Wisconsin, Madison, WI.
- 2009-16 Science and Medicine Graduate Research Scholars (SciMed GRS) Fellow, University of Wisconsin, Madison, WI.
- 2009 Lovenhart Scholar, Molecular and Cellular Pharmacology Program, University of Wisconsin, Madison, WI.
- 2008-09 Illinois Louis Stokes Alliance for Minority Participation (ILSAMP) Scholar, Southern Illinois University, Carbondale, IL.
- 2008 Emanon Club Scholar, Emanon Club of Decatur, Decatur, IL.
- 2005-09 College of Science Dean's List, Southern Illinois University, Carbondale, IL.
- 2005-09 Alpha Lambda Delta National Honors Society, Southern Illinois University Carbondale Chapter, Carbondale, IL.
- 2005-07 Minority Participant Scholar, Southern Illinois University, Carbondale, IL.
- 2005-07 Weyerhaeuser Company Foundation Scholar, Scholarship America, Saint Peter, MN.
- 2005-16 Gates Millennium Scholar, United Negro College Fund, Fairfax, VA.

Other Experience and Professional Memberships

- 2011-14 Undergraduate Research Mentor, Stefan Elde (Molecular Biology), University of Wisconsin, Madison WI.

- 2011-12 Secretary, SciMed GRS Peer Mentoring Committee, University of Wisconsin, Madison, WI.
- 2010-11 SciMed GRS Planning Committee, University of Wisconsin, Madison, WI.

Skills

- Protein expression and purification
- Fluorescence labeling and spectroscopy
- Isothermal titration calorimetry
- Stopped-flow rapid-mixing
- Fast protein liquid chromatography
- Gel electrophoresis and Immunoblotting
- Equilibrium sedimentation centrifugation
- Ultraviolet/Visible spectroscopy
- Proteoliposome generation
- Molecular biology; Primer Design; Sequence analysis
- Dynamic light scatter
- Data Processing/Statistical Analysis