

Derek Schreihofner, PhD
Institute for Healthy Aging
Pharmacology & Neuroscience
School of Biomedical Sciences
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Area of Expertise

My laboratory is interested in understanding how steroid hormones like estrogen, testosterone, and natural estrogens from plants regulate brain function in injury and aging.

We use both cell and animal models to examine the underlying mechanisms of steroid action under conditions in which they are beneficial and those in which they are not in order to understand what key factors result in beneficial effects on the brain. Our goal is to determine the conditions in which these compounds can be safely and effectively used to provide ongoing brain health and treat brain injury and disease.

Additional projects are focused on using novel compounds to protect and regenerate brain tissue after stroke and traumatic brain injury.

Qualifications

BS in Biology, Emory University

PhD in Neuroscience, University of Pittsburgh

Recent Publications

Dietary genistein and 17 β -estradiol implants differentially influence locomotor and cognitive functions following transient focal ischemia in middle-aged ovariectomized rats at different lengths of estrogen deprivation

Oppong-Gyebi, A., Metzger, D., Vann, P. H., Sumien, N. & Schreihofner, D. A., Aug 2022, In: Hormones and Behavior. 144, 105201.

Long-term hypogonadism diminishes the neuroprotective effects of dietary genistein in young adult ovariectomized rats after transient focal ischemia

Oppong-Gyebi, A., Metzger, D., Doan, T., Han, J., Vann, P. H., Yockey, R. A., Sumien, N. & Schreihofner, D. A., Feb 2022, In: Journal of Neuroscience Research. 100, 2, p. 598-619 22 p.

Brain-derived neurotrophic factor for high-throughput evaluation of selective Sigma-1 receptor ligands

Dalwadi, D. A., Kim, S., Schetz, J., Schreihofner, D. A. & Kim, S., 1 Jan 2022, In: Journal of Pharmacological and Toxicological Methods. 113, 107129.

Chronic Testosterone Deprivation Sensitizes the Middle-Aged Rat Brain to Damaging Effects of Testosterone Replacement

Smith, C., Contreras-Garza, J., Cunningham, R. L., Wong, J. M., Vann, P. H., Metzger, D., Kasanga, E., Oppong-Gyebi, A., Sumien, N. & Schreihofner, D. A., 1 Oct 2020, In: Neuroendocrinology. 110, 11-12, p. 914-928 15 p.

Genistein: mechanisms of action for a pleiotropic neuroprotective agent in stroke

Schreihofner, D. & Oppong-Gyebi, A., 3 Jun 2019, In: Nutritional Neuroscience. 22, 6, p. 375-391 17 p.

Chronic intermittent hypoxia induces hormonal and male sexual behavioral changes: Hypoxia as an advancer of aging

Wilson, E. N., Anderson, M., Snyder, B., Duong, P., Trieu, J., Schreihofner, D. A. & Cunningham, R. L., 15 May 2018, In: Physiology and Behavior. 189, p. 64-73 10 p.

N-terminal truncations in sex steroid receptors and rapid steroid actions

Schreihofner, D. A., Duong, P. & Cunningham, R. L., May 2018, In: Steroids. 133, p. 15-20 6 p.

Duration of isoflurane-based surgical anesthesia determines severity of brain injury and neurological deficits after a transient focal ischemia in young adult rats

Gaidhani, N., Sun, F., Schreihofner, D. & Uteshev, V. V., Sep 2017, In: Brain Research Bulletin. 134, p. 168-176 9 p.

Presence of androgen receptor variant in neuronal lipid rafts

Garza-Contreras, J., Duong, P., Snyder, B. D., Schreihofner, D. A. & Cunningham, R. L., 1 Jul 2017, In: eNeuro. 4, 4, e0109-17.2017.

Neuroprotection by Dietary Isoflavones and Their Role in Cerebral Ischemia

Schreihofner, D. A., 1 Jan 2015, *Bioactive Nutraceuticals and Dietary Supplements in Neurological and Brain Disease: Prevention and Therapy*. Elsevier Inc., p. 385-394 10 p.

Sponsored Projects

A Critical Window for Testosterone Replacement Therapy

Schreihofner, D. & Cunningham, R.
Intramural Research(UNTHSC)
1/04/14 → 31/12/15

Beneficial Effects of Dietary Soy Phytoestrogens on the Aging Female Brain

Schreihofner, D.
J. E. S. Edwards Foundation
1/08/16 → 31/07/18

Brain Stem Mechanisms for Altered Autonomic Regulation of Blood Pressure in Obesity

Schreihofner, A., Sumien, N. & Schreihofner, D.
NHLBI: Nat Heart, Lung & Blood Institute
1/07/17 → 31/08/21

Brain Stem Mechanisms of Autonomic and Cardiovascular Dysfunction in Obesity

Schreihofner, A. & Schreihofner, D.
American Heart Association - SouthWest
1/01/14 → 31/12/16

Critical Window for Soy Isoflavone Neuroprotection in Aging

Schreihofner, D.
Soy Health Research Program
1/07/15 → 30/06/16

Dietary Soy in the Prevention of Cerebral Small Vessel Disease

Schreihofner, D.
Garvey Texas Foundation
1/03/13 → 28/02/15

FUNCTIONAL STUDIES OF AN ESTROGEN RECEPTOR VARIANT

Schreihofner, D.
National Institute of Child Health and Human Development
1/01/97 → 31/12/98

FUNCTIONAL STUDIES OF AN ESTROGEN RECEPTOR VARIANT

Schreihofner, D.
1/01/97 → 31/12/98

Mechanisms of Soy Isoflavone Neuroprotection

Schreihofner, D.
Soy Health Research Program
1/01/12 → 31/12/12

NINDS Schrhfr 06/18

Schreihofe, D.

NINDS: Neurological Disorders & Stroke

1/07/16 → 30/06/18

Pilot study on the risks of testosterone replacement to the brain

Cunningham, R. & Schreihofe, D.

National Institute on Aging

15/08/15 → 31/05/18

Pilot study on the risks of testosterone replacement to the brain

Schreihofe, D. & Cunningham, R.

15/08/15 → 31/05/16

Pilot Study on the Risks of Testosterone Replacement to the Brain

Schreihofe, D., Sumien, N. & Cunningham, R.

NIA: National Institute on Aging

15/08/15 → 31/05/18

Repositioning Drugs to Treat Ischemic Stroke at Delayed Time Points

Schetz, J., Schreihofe, D. & Schreihofe, D.

National Institute of Neurological Disorders and Stroke

1/07/16 → 31/12/20

Repositioning Drugs to Treat Ischemic Stroke at Delayed Time Points

SCHETZ, J. & Schreihofe, D.

1/07/16 → 31/12/20

Sigma 1 Receptor as a Target for Repetitive Concussive Brain Injury

Schreihofe, D., Luedtke, R. & Sumien, N.

Intramural Research(UNTHSC)

1/08/16 → 30/04/18

Soy phytoestrogen neuroprotection in cerebral ischemia

Schreihofe, D. & SCHREIHOFER, D. A.

National Center for Complementary and Integrative Health

15/02/04 → 31/01/09

Soy phytoestrogen neuroprotection in cerebral ischemia

Schreihofe, D.

15/02/04 → 31/01/09