



GLYNIS BROWN MATTHEISEN

Oregon Health & Science University, School of Medicine, Neuroscience Graduate Program

Degree:

B.S. Biochemistry, Louisiana State University Honors College

Advisor:

Stephen M. Smith, M.B., Ph.D.

Scholar Award Donor:

Susan and George Swindells

About the Scholar:

Glynis conducts basic research in an electrophysiology laboratory at the Portland VA Medical Center. She is exploring the relationship between G-protein-coupled receptors and voltage-gated sodium channels. Her research shows that sodium channel current can be indirectly modified through G-protein activation. Changes to sodium channel output downstream of G-protein-coupled receptors could represent an avenue for synaptic plasticity. Her research helps the scientific community to further understand the mechanisms and regulation of synaptic transmission. By contributing to our basic understanding of interneuronal communication, the work may provide insight into disease-based research in the future.

Benefits to Society:

G-protein-coupled receptor regulation of voltage-gated sodium channels is currently not well characterized. Glynis aims to complete a pathway from extracellular ligand and receptor binding to changes in sodium channel activity and cellular excitability. Her work will give insight into synaptic transmission.