Investigator Spotlight: Colleen Niswender, PhD – Vanderbilt University

Dr. Colleen Niswender is a Professor of Pharmacology and Director of Molecular Pharmacology at the Vanderbilt Center for Neuroscience Drug Discovery (VCNDD) in Nashville, TN. She obtained her doctorate in pharmacology in 1996 then pursued postdoctoral studies in mouse genetics and cAMP/Protein Kinase A biology. She joined the VCNDD in 2004 and has extensive experience with GPCRs, cell signaling, assay development, HTS and lead optimization, and concepts of allosteric modulation. She has participated in the development and licensing of preclinical candidates for disorders including Parkinson's disease, schizophrenia, Fragile X Syndrome, and other neurological and psychiatric disorders, and has authored over 180 peer reviewed publications. She and her team are pursuing the hypotheses that three of the metabotropic glutamate receptors, mGlu7, mGlu3, and mGlu5, as well as the M4 muscarinic receptor, are novel Rett syndrome therapeutic candidates. These projects began with initial seed funding from rettsyndrome.org. Rocco Gogliotti, the lead author on their recent publication in Science Translational Medicine entitled, "mGlu7 potentiation rescues cognitive, social, and respiratory phenotypes in a mouse model of Rett syndrome", was also the recipient of a postdoctoral fellowship from rettsyndrome.org.

More recently, Dr. Niswender and her group received a 2016 Investigator-Initiated Award from the Peer Reviewed Medical Research Program, which is managed by the Department of Defense's Congressionally Directed Medical Research Programs (CDMRP).