

# Cell Biology and Neuroscience Seminar Series

## Friday, March 20th

3:10 pm, 108 Plant BioSciences Building

### Randy D. Blakely, Ph.D.

Allan D. Bass Professor of Pharmacology and  
Psychiatry  
Director, Silvio O. Conte Center for  
Neuroscience Research  
Vanderbilt Postdoctoral Training Program  
in Functional Neurogenomics



## "The Serotonin Side of Autism: Tackling 50 Years of Mystery"

Dr. Blakely's laboratory explores mechanisms of synaptic regulation, focusing on how clearance of neurotransmitters by presynaptic and glial transporters regulates neurotransmitter signaling capacity. His laboratory uses molecular biology, transcriptomic and proteomic methods, model system genetics (*C. elegans*, recombinant inbred mice), molecular and cellular imaging approaches, electrophysiological paradigms, and transgenic mouse approaches to identify mechanisms by which neurotransmitter transporters insure normal synaptic function and how disease risk is impacted by transporter dysfunction. Dr. Blakely's laboratory also seeks to understand how drugs, including antidepressants (e.g. SSRIs) and psychostimulants (e.g. cocaine, ADHD medications), carry out their actions. Finally, Dr. Blakely's laboratory seeks to understand the web of molecular interactions that act in concert with, or regulate neurotransmitter transporters to insure proper synaptic signaling and plasticity.



All are welcome. Refreshments will be served.