



Marquette University College of Health Sciences Neuroscience Research Group

- Goal of the neuroscience research group is development of new medications for neuropsychiatric illnesses that are more effective - work for more patients - and work much faster.
- For over a decade the college has been focused on research efforts on the neurobiological underpinnings of mental illness.
- The college has assembled over a dozen faculty neuroscientists, eight postdoctoral research fellows, a robust research infrastructure and technical staff and a neuroscience graduate program.
- Marquette neuroscientists are employing a multi-faceted approach to solving the problem of mental illness through an array of biomedical science disciplines - from biochemistry, neuroanatomy, cellular/molecular biology and integrative physiology to pathology, neuropharmacology and molecular genetics.
- Collaborative expertise is vital. Faculty members study the nervous system from a broad range of experimental perspectives, examining brain systems thought to underlie the spectrum of mental disorders. They believe that focusing on areas of overlap among these brain systems holds the key to opening doors to new treatments, and their work is well underway.

Achievements to date:

- Uncovered a brain protein capable of regulating levels of a key class of chemical neurotransmitters that control mood. This critical finding has the potential for the guiding the development of more effective anti-depressant medications.
- Revealed a novel mechanism for controlling the neurotransmitter glutamate in the brain. This breakthrough holds promise for generating effective new treatments for depression, schizophrenia, obsessive-compulsive disorders, addiction and other brain disorders.
- Currently conduct 19 funded research projects totaling \$16 million - translational efforts capable of yielding new effective treatments for debilitating mental disorders.
- Launched two pharmaceutical start-up companies.

Marquette University is committed to promoting dynamic, life-changing research through their proven neuroscience expertise.