



Ludwig Lab

PhD Research Positions

The Ludwig Lab within the Wisconsin Institute for Translational Neuroengineering (WITNe) is looking to fill two graduate student slots for the fall of 2021. The Ludwig Lab specializes in the development of injectable and non-invasive devices to ‘hack’ the nervous system to treat a variety of diseases/disorders including hypertension/heart failure, epilepsy, Alzheimer’s Disease and Parkinson’s Disease.

The first position will focus on the development and application of cutting-edge optical tools in small animal models to visualize the active neural interface of clinical neuromodulation therapies to optimize for on and off-target engagement. For an open access recent paper visit:

<https://iopscience.iop.org/article/10.1088/1741-2552/abb7a4>

The second position will focus on the understanding how the existing and next-generation neuromodulation therapies maintain local target engagement chronically in the pig model most resembling human scale. For two recent open access papers and an informational video on this work visit:

<https://iopscience.iop.org/article/10.1088/1741-2552/ab9db8>

<https://iopscience.iop.org/article/10.1088/1741-2552/ab7ad4>

<https://www.medgadget.com/2019/11/injectable-electrodes-for-neuromodulation.html>

The Ludwig Lab works closely with the vibrant local neuromodulation industry to develop technologies that are more easily translated into clinical deployment. More information about the Ludwig Lab and WITNe can be found:

<https://www.linkedin.com/in/kip-ludwig-ob66b94/>

<https://witne.engr.wisc.edu/lab-groups/ludwig-lab/>

Dr. Ludwig’s academic, government and industry work have been featured in diverse locales such as Time Magazine, Discover, and Newsweek.

Application Process:

For information on how to apply to the UW–Madison BME Program, [click here](#).

Applications are due Dec 1. Please note, the GRE is not required for fall 2021 applicants.