

# IEM/CNE SPECIAL SEMINAR

WEDNESDAY  
APRIL 15<sup>th</sup>, 2015

## Developing a Novel Neuromodulation Therapy from Initial Concept to European and U.S. Clinical Trials for Market Approval



Institute for  
Engineering in Medicine

UNIVERSITY OF MINNESOTA

Driven to Discover<sup>SM</sup>

### DR. KIP LUDWIG

Program Director, Neural Engineering  
National Institute of Neurological Disorders and Stroke, NIH



FREE event, no registration required.

Refreshments will be provided  
from 1:50pm

For additional information on Dr. Kip  
Ludwig's presentation please contact:  
[scot0353@umn.edu](mailto:scot0353@umn.edu)

2:00PM - 3:00PM  
4-101 Nils Hasselmo  
Hall

The Institute for Engineering in Medicine (IEM) is pleased to announce a special seminar by Dr. Kip Ludwig, *"Developing a Novel Neuromodulation Therapy from Initial Concept to European and U.S. Clinical Trials for Market Approval."*

Prior to coming to the National Institutes of Health, Dr. Kip Ludwig worked at a Senior Research Scientist at CVRx®, where he and his team conceived, developed, and demonstrated the chronic efficacy of a minimally-invasive neural stimulation electrode for treating high-blood pressure and heart failure in both pre-clinical and clinical studies, leading to approval for sale in Europe and the United States. In this technical seminar, Dr. Ludwig will describe the experimental studies that were necessary to go from his initial concept design to enabling clinical studies in Europe and the United States for market approval. He will discuss the key biological and device unknowns that were necessary to address at each stage in development, while outlining points that still remain unknown after market approval due to technological constraints and financial drivers that are common across the neuromodulation industry.

Dr. Kip Ludwig is the Program Director for Neural Engineering at the National Institute of Neurological Disorders and Stroke out of the National Institutes of Health. He is the Scientific Lead for the Translational Devices Program at NINDS, is the Lead for the Project Team responsible for developing and executing three of the six NIH Funding Opportunities Announcements for the White House B.R.A.I.N. Initiative, and led a trans-NIH planning team in developing the ~250 million dollar S.P.A.R.C. Program to stimulate advances in neuromodulation therapies for organ systems. He currently serves as an advisor for the implementation of the S.P.A.R.C. Program.

