

## Postdoctoral positions in computational neuroscience, sleep, and developmental neurophysiology

We are seeking to fill multiple positions for highly skilled and motivated postdoctoral scholars. Successful applicants will learn to perform experiments in neurophysiology and sleep, as well as develop computational models based on years of spike and LFP data collected in infant rats and, more recently, human infants. We have developed state-of-the-art multisite recording methods to detect neural activity in cortex, hippocampus, thalamus, cerebellum, and brainstem in developing rats and relate that activity to changes in sleep-wake states and limb movements (captured using high-speed video and tracked using DeepLabCut). Unique opportunities abound for analyzing and modeling these complex datasets to reveal functional changes in neural activity across the first several postnatal weeks. Among other things, we are investigating the integration of corollary discharge and reafferent signals, the role of state-dependent neuromodulation, and the contributions of neural oscillations to the emergence of functionally connected brain regions.

Please visit the lab's [homepage](#) and read our recent [papers](#) to gain a better sense of the kinds of questions we ask and the methods we use to answer them. You can learn more about the PI, Mark Blumberg, [here](#) and [here](#).

The laboratory is located in the [Department of Psychological and Brain Sciences](#) at the [University of Iowa](#), a leading public university. The university is located in Iowa City, a midsize community with a high quality of life. The department is experiencing a period of enhanced growth and investment, including completion of a [new building](#). In addition, the University of Iowa is home to a large and vibrant neuroscience community, highlighted by the [Iowa Neuroscience Institute](#) that brings together over 100 neuroscientists across 26 departments.

In addition to research opportunities, successful applicants will have opportunities to teach courses, mentor graduate and undergraduate students, write grants, and engage in activities to enhance professional development and prepare for an academic career.

Salary is negotiable, but is expected to be above NIH's minimum guidelines for postdocs.

Requirements: A PhD with experience in computational and/or behavioral neuroscience. Experience with MATLAB (or other programming languages) is required.

Please send a letter of interest, curriculum vitae, and selected publications to Mark Blumberg at [mark-blumberg@uiowa.edu](mailto:mark-blumberg@uiowa.edu).