



THE UNIVERSITY OF IDAHO  
NEUROPHYSIOLOGICAL IMAGING AND  
MODELING LABORATORY

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## ***Job Opportunity: Post-doctoral Fellow in Biomedical Image Post-processing for NASA-sponsored Research Projects***

The Neurophysiological Imaging and Modeling Laboratory (NIML) within the Department of Biological Engineering at the University of Idaho is dedicated to advancing the health and well-being of millions of people affected by central nervous system (CNS) diseases. The NIML seeks a highly motivated and critical-thinking post-doc that wishes to participate in a dynamic multi-disciplinary research team that makes new discoveries about CNS disorders using state-of-the-art medical imaging and modeling techniques. To learn more about the NIML research program visit [www.niml.org](http://www.niml.org).

### **Project supervisor**

Bryn Martin, Ph.D., Department of Biological Engineering, University of Idaho, Moscow, ID

### **Salary and benefits**

A post-doc position is offered with \$41,000 - \$48,000 salary plus benefits of University of Idaho.

### **Deadline for submission**

Accepting applicants starting from December 12, 2019 until position is filled.

### **Project description**

Spaceflight associated neuro-ocular syndrome (SANS) is a combination of pathological ophthalmic findings documented in a subset of astronauts that participated in long duration missions (6+ months) to the International Space Station. Our research team has developed novel quantitative tools to quantify SANS-related parameters including a) posterior globe volume deformation, b) optic nerve sheath distension and c) optic nerve tortuosity. We applied these tools to astronaut MRI data sets collected in astronauts and test subjects on Earth. As a post-doc you will work in a multidisciplinary team to improve and automate these image post-processing protocols, apply the protocols to astronaut data sets, generate quantitative results, write publications stemming from the research, and present findings at conferences. This project is ongoing and will be conducted in partnership with multiple investigators at NASA Johnson Space Center, KBR Wyle Inc., the Envihab research facility in Germany, The European Space Agency, Georgia Institute of Technology, and University of Texas Health.

### **Qualifications**

Applicants will be subject to standard background check. Applicants should hold a Ph.D. in Biomedical Engineering, Computer Science, or related discipline and have experience in biomedical image post-processing methods, programming in Matlab, and MRI post-processing and physics. Excellent English communication skills (written and oral) and ability to work with and lead a team including PhD students is expected.

### **The University of Idaho**

The University of Idaho (UI) is a top choice for researchers from around the globe and is ranked by U.S. News & World Report as 85<sup>th</sup> in the nation's public universities. UI annual research expenditure in 2019 was ~110 million dollars. It is located in Moscow, Idaho surrounded by the idyllic rolling Palouse hills. Moscow has 24,000 residents and was selected as one of the nation's five best places to live among college towns with art galleries, coffee shops, pubs and outdoor activities.

### **How to apply**

Please send a copy of your current CV, 3 references, and 3 peer-reviewed full-length journal publications to [brynm@uidaho.edu](mailto:brynm@uidaho.edu). UI promotes equal opportunities for all qualified candidates.