Cryo-Electron Microscopy (Cryo-EM)
The Shahmoradian lab invites applications for a Postdoctoral Researcher position in the field of Cryo-Electron Microscopy (Cryo-EM) at UTSW. The successful candidate will join a multidisciplinary team focused on elucidating the structural biology of complex macromolecular assemblies. Exceptional performance in this role may offer the opportunity to transition into a permanent staff scientist position upon completion of the Postdoc term.

Postdoctoral Researcher in Cryo-Electron Microscopy (Cryo-EM)
Location: Center for Alzheimer's and Neurodegenerative Diseases, O'Donnell Brain Institute, UT Southwestern Medical School, Dallas, Texas
Position Type: Full-Time, Fixed-Term (2 years with the possibility of extension)
Salary: Very Competitive
Application Deadline: Ongoing

Responsibilities:
- Sample Preparation: Prepare biological samples for Cryo-EM, including plunge-freezing techniques.
- Image Processing: Perform image alignment, classification, and high-resolution reconstruction using software such as RELION, cryoSPARC, or similar.
- Model Building and Refinement: Generate atomic models based on Cryo-EM maps, and refine these models for best fit and validation.
- Computational Analysis: Conduct computational simulations to interpret and validate structural data (preferred but not required)
- Data Acquisition: Operate high-end electron microscopes for data collection, including single-particle and tomographic imaging (preferred but not required)
- Collaboration: Work closely with biochemists, biophysicists, and computational scientists to integrate structural data with other experimental results.
- Data Management: Maintain accurate records of experimental procedures and data, ensuring compliance with institutional policies on data integrity and security.
- Publication and Dissemination: Prepare manuscripts for publication in peer-reviewed journals and present findings at scientific conferences.
- Mentorship: Train and mentor junior lab members in Cryo-EM techniques and data analysis.

Qualifications:
- Ph.D. in Structural Biology, Biophysics, Biochemistry, or a related field.
- Extensive experience in Cryo-EM sample preparation and image processing.
- Proficiency in computational tools for image processing and structural modeling, such as RELION, cryoSPARC, or equivalent.
- Experience with helical image processing is highly preferred.
- Additional programming skills in Python, MATLAB, or other relevant languages is preferred.
- Excellent communication skills, both written and oral.
- Ability to work independently and as part of a multidisciplinary team.
- A track record of peer-reviewed publications in reputable journals.

Interested individuals should send the following information to Sarah Shahmoradian at sarah.shahmoradian@utsouthwestern.edu:
- Cover Letter: Describe your research experience, interests, and how they align with the project.
- Curriculum Vitae (CV): Include a list of publications and contact information for three references.
- Statement of Research: Provide a summary of your research background and future research interests (maximum 2 pages).
- Academic Transcripts: Copies of your Ph.D. and undergraduate transcripts (unofficial copies are acceptable)

Information on our postdoctoral training program, benefits, and a virtual tour can be found at http://www.utsouthwestern.edu/postdocs.

UT Southwestern Medical Center is committed to an educational and working environment that provides equal opportunity to all members of the University community. UT Southwestern prohibits unlawful discrimination, including discrimination on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, citizenship status, or veteran status. To learn more, please visit here.