Nanoparticle Synthesis and Cellular Imaging

The Shahmoradian lab is seeking a highly motivated Postdoctoral Researcher to join our research team. The successful candidate will play a key role in a cutting-edge project focusing on the development of advanced nanomaterials for cellular imaging applications. 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 Nanoparticle Synthesis and Cellular Imaging

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:

• Nanoparticle Synthesis and Optimization: Design and synthesize nanoparticles with tailored properties for cellular imaging applications. Optimize synthesis protocols to achieve high-quality nanoparticles with enhanced properties.
• Surface Functionalization: Develop strategies for modifying nanoparticle surfaces, ensuring stability and biocompatibility. Investigate surface functionalization techniques to enable specific interactions with cellular components.
• In Vitro Assays and Cellular Uptake: Conduct in vitro experiments to assess the uptake of nanoparticles by cells. Investigate cellular responses and interactions with functionalized nanoparticles.
• Characterization Techniques: Utilize a range of characterization techniques, including TEM, SEM, DLS, and spectroscopy, to assess nanoparticle properties.
• Analyze data to validate the success of nanoparticle synthesis and functionalization.
• Research Collaboration: Collaborate closely with the research team to contribute to project advancements and scientific discussions.
• Mentor and guide graduate and undergraduate students involved in related research.

Qualifications:

• Ph.D. in Chemistry, Materials Science, Nanotechnology, or a related field.
• Strong background in nanoparticle synthesis and surface modification.
• Proficiency in nanomaterial characterization techniques.
• Excellent problem-solving skills and the ability to work collaboratively in a research team.
• 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.

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