

## **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](mailto: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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