

Postdoctoral Fellowships in
NMR OF PROTEIN-SURFACE INTERACTIONS

OVERVIEW

Two federally funded postdoctoral positions are available in the lab of Dr. Nicholas Fitzkee in the Department of Chemistry at Mississippi State University starting August 1, 2018.

Our group is interested in protein-nanoparticle interactions, and we have developed several new approaches to study these interactions using NMR spectroscopy. Currently we have two funded projects: The first investigates the biophysical basis of protein-surface interactions in nanoparticle-based therapeutics. The second studies the initial attachment of proteins to surfaces during biofilm formation.

ESSENTIAL DUTIES

Primary responsibilities include: (1) Expression and purification of recombinant proteins, (2) Characterization and synthesis of nanoparticles with varying surface chemistries, (3) NMR spectroscopy of proteins and protein-nanoparticle solutions, (4) Analysis of data, (5) Collaboration with other graduate and undergraduate researchers in the group, (7) Preparation of manuscripts and proposals, and (8) Presentation of results at group meetings and scientific conferences. In addition, other duties may be assigned by the PI.

QUALIFICATIONS

The successful candidate will have: (1) A Ph.D. in Biophysics, Chemistry, Biochemistry, or a related field, (2) Excellent writing and oral presentation skills, (3) Excellent analytical skills, (4) Experience with protein biochemistry, and (5) A strong motivation for solving scientific problems. Preference will be given to candidates with prior experience in NMR spectroscopy or nanoparticle characterization. A demonstrated track record of publication is strongly preferred.

APPLICATION

Applicants should prepare a single PDF containing the following: (1) A cover letter containing a summary of research interests, accomplishments, career goals, and a preferred start date, (2) A current CV, and (3) Contact information for three references. Please submit this document to nfitzkee@chemistry.msstate.edu.

MSU is an equal opportunity employer, and all qualified applicants will receive consideration for employment without regard to race, color, religion, ethnicity, sex (including pregnancy and gender identity), national origin, disability status, age, sexual orientation, genetic information, protected veteran status, or any other characteristic protected by law.