

## ***Postdoctoral Positions in Protein NMR: Flexibility & Interactions***

**Department of Chemistry and Biochemistry  
University of Notre Dame, Notre Dame IN**

Two postdoctoral research positions are immediately available in the laboratory of Jeff W. Peng (<http://www.chemistry.nd.edu/faculty/detail/jpeng>). One position will focus more on biochemical applications; the other will focus more on methods development. Both positions support our overall goal to understand the impact of protein and ligand dynamics on signal transduction and structure-guided drug design, using biomolecular NMR. Recent representative publications from our lab include: (i) Peng et al. Nature Struct Mol Biol 2007 Apr; 14(4):325-31; (ii) Namanja et al., Structure 2007 Mar; 15(3):313-27; (iii) Zintsmaster et al, J Am Chem Soc 2008 Oct 29; 130(43):14060-1.

Specific research projects will explore relationships between biological activity and molecular flexibility in two areas including; (i) molecular mechanisms of antibiotic resistance in pathogenic bacteria (e.g. MRSA); (ii) long-range communication within signaling proteins regulating mitosis. Ideal candidates will have experience and training in multi-dimensional protein NMR spectroscopy. The biochemical candidate will have an emphasis on expression and purification of isotope-enriched proteins for NMR, while the methods candidate will have an emphasis on spectroscopic methods and spin relaxation. Expertise in protein NMR structure determination and/or computational chemistry are additional plusses.

Our laboratory has in-house expertise in, and abundant access to, both 700 and 800 MHz high-field spectrometers equipped with cryogenic probes. There is ample access to shared equipment facilities for basic biophysical characterization, and on-site computing clusters for computational chemistry. There will also be ample opportunities for collaboration with groups focused on x-ray crystallography, theoretical chemistry, and bio-organic chemistry.

If you are interested, please send a cover-letter and CV that includes a list of publications and three references to:

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