

Postdoctoral Research Position for Single Molecule and
Single Cell Technologies
University of Notre Dame

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Posted Mar. 3, 2025, set to expire Jul. 9, 2025

Job Title	Postdoctoral Research Position for Single Molecule and Single Cell Technologies
Department	Electrical Engineering & Biological Sciences
Institution	University of Notre Dame Notre Dame, Indiana
Date Posted	Mar. 3, 2025
Application Deadline	Open Until Filled
Position Start Date	Available Immediately
Job Categories	Post-Doc
Academic Field(s)	Physics - Atomic/Molecular/Optical/Plasma Nanotechnology Biology - Molecular
Apply By Email	gtemp@nd.edu

Job Description

Postdoctoral Research Position for Single Molecule and Single Cell Technologies

Seeking a Ph.D to support research projects in nanotechnology related to single molecule and single cell spectroscopy. This work utilizes nanometer-diameter pores through nanometer-thick solid-state membranes or quartz pipettes with nanometer-diameter orifices that are immersed in an electrolytic solution to detect single molecules for applications in protein sequencing or identifying protein structure. The successful applicant must have completed a Ph.D., preferably in molecular and cell biology, electrical engineering, physics, biophysics, bio-engineering or a closely related discipline, with a proven capacity for world-class research that is reflected in a publication record.

Considerable skill is required in implementing experiments to probe the interactions between biomolecules and abiotic nanostructures and/or nanoelectronics. Experience in a subset of the following disciplines is mandatory: aberration-corrected scanning transmission electron microscopy;

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micro- and nanofluidics; atomic force/scanning probe microscopy; free-space laser optics and preferably optical tweezing; semiconductor device fabrication; high frequency, low-noise electrical measurements; molecular and cell biology; interfacing computers with instrumentation using LABVIEW; and programming in MATLAB, PYTHON, C++, and/or IGOR. For more information, candidates should refer to the web site: <http://www3.nd.edu/~gtimp/>.

Interested applicants should send a detailed CV, along with a list of publications, and arrange to have at least three letters of recommendation sent via email directly to Prof. Gregory Timp (gtimp@nd.edu). In the cover letter, please delineate specifically how your skills can be applied to the work in this lab.

EEO/AA Policy

The University of Notre Dame is an equal opportunity employer.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Gregory Timp
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