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



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| **Job Title** | Postdoctoral Research Position for Single Molecule and Single Cell Technologies |
| **Department** | Electrical Engineering & Biological Sciences |
| **Institution** | University of Notre Dame<br>Notre Dame, Indiana |
| **Date Posted** | Jul. 9, 2025 |
| **Application Deadline** | Open Until Filled |
| **Position Start Date** | Available Immediately |
| **Job Categories** | Post-Doc |
| **Academic Field(s)** | Physics - Atomic/Molecular/Optical/Plasma<br>Nanotechnology<br>Biology - Molecular |
| **Apply By Email** | gtimp@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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**Contact E-mail** gtimp@nd.edu