Postdoctoral Researcher in Nano-optics and Nano-biotechnology : Notre Dame, IN, United States

Seeking a Ph.D. to support research at the University of Notre Dame in nano-optics and nano-biotechnology. Projects involve optical tweezing either to organize cells into synthetic tissue on hydrogel scaffolds, or to create photonic crystals and metamaterials from abiotic, high index dielectrics or metals. The position will also involve confocal imaging of spatially-resolved gene activity in live cells in real time or high resolution (transmission and scanning electron) microscopy to scrutinize metamaterials. Considerable skill in implementing experiments to probe the interactions between living matter or biomolecules and light, electronics, and/or abiotic nanostructures is required. Extensive experimental experience in a subset of the following areas is **mandatory**: laser and free-space optics, and preferably optical tweezing; micro- and nano-fluidics; confocal microscopy and immunofluorescene; transmission electron microscopy; semiconductor processing; low-noise, electrical measurement techniques, including lock-in measurements; and a facility for programming, especially in Labview, MATLAB, and Igor. The successful applicant must have completed a Ph.D. preferably in physics, biophysics, bioengineering, electrical engineering or a related discipline, with a proven capacity for world-class research that is reflected in a publication record. For more information, candidates should refer to the web site:<http://www.nd.edu/~gtimp/>. Interested applicants should send a detailed CV, along with a list of publications, and at least three letters of recommendation via email to Prof. Gregory Timp (gtimp@nd.edu), 316 Stinston-Remick Hall, Notre Dame, IN 46556