



## Postdoctoral Fellow Search University of Illinois, Urbana-Champaign



Qualified applicants are invited to apply for several postdoctoral fellowships in experimental and theoretical biophysics at the National Science Foundation's "Center for the Physics of Living Cells" (CPLC) <http://www.cplc.illinois.edu> at the University of Illinois, Urbana-Champaign. Fellowships are available for the coming academic year, starting in September 2013, and will normally be expected to last a minimum of two years.

### Mission

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The mission of the CPLC is to catalyze new research directions to create a quantitative narrative for the simplest living systems, connecting the microscopic physical-chemical reactions in the cell to the system-level properties. Through major advances in single-molecule manipulation techniques, live cell imaging, and computational methods, we expect this combined endeavor to culminate in a truly quantitative physical picture for the fundamental processes at the core of cellular life. The Center is predominantly experimental in character, but is tightly coupled to a substantial and novel theoretical component to support the interpretation of experiment.

### Job description

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Research in the Center falls in one of four themes:

- (1) *Maximizing information content of single molecule experiments;*
- (2) *Using synthetic nanostructures to mimic cellular environments;*
- (3) *Observing individual events within single cells;*
- (4) *Extending computation to biologically relevant timescales, and theory to greater biological realism.*

Fellows will be using state-of-the-art experimental and theoretical biophysical tools to accomplish these goals: optical tweezers, single-molecule and super-resolution fluorescence microscopy, fabrication of synthetic nanostructure, live cell imaging, chemical biology and genomic biology tools, microscopic and coarse-grained molecular simulations, stochastic modeling, whole cell simulations, as well as the standard methods of molecular and cellular biology and genetics. Research will involve both the development and improvement of experimental and computational techniques and the application of these techniques to particular biological processes such as replication, transcription, translation, cell transport, signaling, and motility. As projects are collaborative endeavors between several labs, the Fellows will have the opportunity to be jointly advised by two or more faculty members of the Center. Fellows will also be expected to participate in education and outreach activities of the Center.

### Qualifications

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Candidates for this postdoctoral position must have a Ph.D. in the physical sciences, life science, or related disciplines, and must be highly qualified in one of the experimental or theoretical areas. Excellent oral- and written-communication skills are required for this position.

The University of Illinois is an equal opportunity/affirmative action employer, and welcomes applications from minority and women candidates.

### How to apply

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Applications for this position (and other positions available in the Physics Department) may be submitted electronically via <https://my.physics.illinois.edu/submit/go.asp?id=530>, and should arrive no later than **December 1, 2012**.

Applications received after the deadline may not be considered. These applications should include, in PDF format:

- (1) A cover letter
- (2) A curriculum vitae
- (3) A research statement, summarizing your past and ongoing research,
- (4) A publications list, including papers and preprints with their URLs. For any papers or preprints that are not readily available via the internet, applicants may wish to upload electronic copies via the "supporting document" channel.

In addition, applicants should provide contact information for three references from whom letters of recommendation will be requested. Questions can be directed to: [director@cplc.illinois.edu](mailto:director@cplc.illinois.edu).