

Multiple postdoctoral positions in biomaterials research

The Department of Materials Science and Engineering at Stanford University invites applications for four postdoctoral research associate positions under the supervision of **Professor Sarah Heilshorn**. The successful candidates will join a multidisciplinary research group that studies protein engineering, microfluidic devices, and biomimetic materials for drug delivery, tissue engineering, and nanomaterials applications.

Applicants must have a PhD in a relevant field (e.g., materials science, chemistry, chemical engineering, biology, or bioengineering) earned no earlier than September 2006 or to be earned no later than March 2010. Proficiency in English, both written and verbal, and demonstrated leadership skills are requirements. Applications will be accepted until all positions have been filled.

Qualified candidates should contact Dr. Sarah Heilshorn at **HeilshornLab@gmail.com**. To apply, send curriculum vitae, a brief description of research interests and accomplishments, the position(s) for which you are applying (see list below), and the names and contact information of three references. Applications should be sent as a single PDF email attachment. Additional research information can be found at <http://mse.stanford.edu/faculty/heilshorn.html>.

Position 1. Biotemplating of Inorganic Nanostructures

The ideal applicant will have research expertise in at least three of the following areas: 1) solution-phase inorganic nanomaterials synthesis, 2) advanced nanomaterials or surface characterization techniques, 3) organic-templating of inorganic materials, 4) protein or peptide science, and 5) experimental polymer physics techniques.

Position 2. Stem Cell-Biomaterial Interactions

The ideal applicant will have research expertise in at least three of the following areas: 1) stem cell culture maintenance, 2) *in vitro* analysis of cell-biomaterial interactions, 3) quantitative measurements of stem cell differentiation, 4) time lapse fluorescence or confocal imaging, and 5) use of molecular perturbations to disrupt cell receptor-ligand interactions or signal transduction pathways.

Position 3. Design of Protein-Engineered Biomaterials

The ideal applicant will have research expertise in at least three of the following areas: 1) recombinant DNA cloning, 2) recombinant protein expression and purification, 3) soft materials characterization techniques, 4) mammalian cell culture, and 5) *in vivo* biomaterials analysis.

Position 4. Cellular Chemotaxis and Collective Cell Migration

The ideal applicant will have research expertise in at least three of the following areas: 1) design and modeling of microfluidic devices, 2) fabrication and validation of microfluidic devices, 3) mammalian cell culture, 4) analysis of cell migration, and 5) time lapse fluorescence or confocal imaging.