Description
A position is available for a highly motivated postdoctoral fellow to work in a multidisciplinary research environment, which has been funded by National Institutes of Health (NIH). The postdoctoral fellow will combine biomaterial design with microtechnology to precisely control biological processes of single regenerative cells and to restore damaged tissues, including bone, bone marrow and lungs. The Principal Investigator (PI) will help the fellow develop his/her career by providing a dynamic and collaborative research environment. The PI will encourage the preparation of research papers, application of fellowships, and presentation at national/international meetings. A background on our research can be found by visiting our website, Sculpting Regeneration: http://www.sculptingregeneration.org

Environment
The laboratory is primarily housed in the Department of Pharmacology and Regenerative Medicine at the College of Medicine (http://mcph.uic.edu). The Department has a dynamic group of junior and senior faculty, research faculty, postdoctoral fellows and PhD students. The department's strengths are in the broad areas of cell signaling, cardiovascular and lung biology, stem cells and regenerative medicine, and drug discovery. The Department leads the field in funding and is home to a world-class graduate pharmacology program. The Department has been consistently ranked top 10 in NIH research funding in the field of Pharmacology. In 2021, the Department was ranked in the top 15 in the United States based on QS World University Rankings by Subject in Pharmacy and Pharmacology.

Duties
The postdoctoral fellow is expected to develop and learn to utilize various techniques in both biological (e.g. animal experiments, molecular biology) and physical sciences (e.g. atomic force microscopy, micropipetting, biomaterial design, and microfabrication). To facilitate this effort, the fellow will have an access to various state-of-the-art facilities in the University of Illinois at Chicago campus (http://www.rrc.uic.edu), and other major institutions in the Chicago area through the Chicago Biomedical Consortium (http://www.chicagobiomedicalconsortium.org).

Qualifications
1) Candidates must have a Ph.D. or M.D./Ph.D. degree.

2) NIH training grant is available for US citizens and permanent residents. For further eligibility requirements, please refer to the NIH guidelines for training grant appointments:
https://grants.nih.gov/grants/policy/nihgps_2012/nihgps_ch11.htm

3) Required expertise with a track record of publication in the following areas:
- Cell biology and engineering: e.g. primary cell isolation and culture, flow cytometry, cell confocal microscopy, genetic engineering, cell membrane engineering
- Animal experiments with rodents: e.g. transplantation, survival surgery, *in vivo* imaging.
- Computational thinking and coding for data analysis: e.g. image analysis, RNAseq data analysis
- Hydrogel design and characterization: e.g. chemical synthesis, conjugation, FT-IR/NMR analysis, rheological analysis
- Biophysical techniques: e.g. micropipetting, atomic force microscopy, micropatterning

4) Minimum of two first-author primary research articles in international journals.

Interested applicants who meet all the criteria above should send a PDF file which includes a cover letter stating career goals, CV, and contact information (including email addresses and phone numbers) for three references to Jae-Won Shin, Ph.D. Email to: shinjw@uic.edu

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