

Postdoctoral Research Position in Musculoskeletal
Biomechanics and Regenerative Medicine
Drexel University

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Posted Jun. 23, 2020, set to expire Oct. 23, 2020

Job Title	Postdoctoral Research Position in Musculoskeletal Biomechanics and Regenerative Medicine
Department	School of Biomedical Engineering, Science and Health Systems https://drexel.edu/biomed/
Institution	Drexel University Philadelphia, Pennsylvania
Date Posted	Jun. 23, 2020
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Post-Doc
Academic Field(s)	Orthopedics & Orthopedic Surgery Musculoskeletal Medicine Biomedical Engineering/Biomedical Sciences Biochemistry & Cellular Biology
Job Website	http://linhanlab.com/
Apply By Email	lh535@drexel.edu

Job Description

Two NIH-funded postdoctoral positions are available immediately in Dr. Lin Han's NanoBiomechanics Laboratory (<https://linhanlab.com>) at the School of Biomedical Engineering, Science and Health Systems at Drexel University in Philadelphia, PA.

Successful candidates will lead one of the two projects:

- 1) Primitive collagen in the progenitor cell mechanobiology and regeneration of fibrous-hyaline

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cartilage hybrid matrix. The goal is to understand the impact of the primitive collagen, type V, in regulating the progenitor cell chondrogenesis in vivo and in vitro, and to test the therapeutic potential of using collagen V for improving the regeneration of the hybrid of fibro- and hyaline cartilage matrix in temporomandibular joint. Candidates will be trained in AFM-based nanomechanics tools, advanced multiscale imaging, mechanobiology analysis and conditional mouse model development.

2) Proteoglycan-based biomaterials for stem cell chondrogenesis and neo-matrix regeneration. The goal is to test the therapeutic potential of native proteoglycans (e.g., aggrecan, decorin) in modulating stem cell chondrogenesis, mechanotransduction, biosynthesis and assembly of neo-cartilage matrix. Candidates will be trained in AFM-based nanomechanics tools, advanced biomaterial fabrication and characterization, multiscale imaging, mechanobiology analysis.

What we offer:

- Supportive mentorship on training in critical and independent thinking, professional presentation/writing, grantsmanship, and providing networking and collaboration opportunities in the broad Biomed community.
- Opportunities to collaborate with world-renowned scientists at the University of Pennsylvania McKay Lab (<https://www.med.upenn.edu/orl/>) and the Children's Hospital of Philadelphia (CHOP) Orthopedic Research (<https://www.chop.edu/pages/orthopedic-research>).
- A support team for medical technology commercialization through the endowed Coulter-Drexel Translational Research Partnership Program.
- A stimulating environment with freedom to develop new research directions.
- NIH-funded positions with competitive pay and full benefits.

Who should apply:

Highly motivated individuals with a Ph.D. in a relevant area (biomaterials, musculoskeletal bioengineering, cartilage biology/mechanobiology or related disciplines are encouraged to apply. Candidates demonstrating strong independent thinking and willingness to work with junior graduate students are preferred.

To apply:

Please submit a cover letter outlining research experience and interests, CV and contact information of three references to Dr. Lin Han via email at lh535@drexel.edu.

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Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Lin Han
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