

## Department of Mechanical Engineering

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### Postdoctoral Position in Extracellular Matrix-Directed Musculoskeletal Mammalian Regeneration

The [Musculoskeletal Extracellular Matrix Laboratory](#) (MEML) in the [Department of Mechanical Engineering](#) at the University of Colorado - Boulder is seeking an exceptionally creative postdoctoral researcher to investigate the mechanistic basis for how extracellular matrix (ECM) remodeling directs regeneration in mammals. The project is a collaborative effort using spiny mice, an emerging model for mammalian musculoskeletal regeneration developed in the [Seifert Lab](#) in the [Department of Biology](#) at the University of Kentucky. As such, the selected candidate will work with both groups, but will be based at CU-Boulder. The selected candidate will be trained to leverage cutting edge imaging and proteomic tools employed in the MEML to label, isolate and visualize newly generated ECM. Using this methodology, in combination with *in vitro* and *in vivo* approaches in spiny mice and lab mice, the selected candidate will investigate how ECM production, composition and force generation regulate regenerative healing.

Ideal candidates will have a strong background in at least two of the following areas (and a drive to learn and master the others): biomechanics of soft tissues, developmental biology, 3D/4D visualization of biological tissues, protein engineering and quantitative bioinformatics. Successful applicants will initially join an NIH funded project. While this is a funded position, postdocs in the MEML are strongly encouraged to develop their own projects and external funding portfolios as a pathway toward independence. Salary follows NIH guidelines for postdoctoral researchers. Informal inquiries by email are strongly encouraged. For additional information visit: <https://www.colorado.edu/mechanical/sarah-calve>.

Review of applications will begin on a rolling basis and will continue until the position has been filled. Ideal start date is Fall 2019. Candidates will have completed their Ph.D. prior to starting the position but need not have defended their dissertation prior to applying. Applicants should send a single pdf document to Sarah Calve ([sarah.calve@colorado.edu](mailto:sarah.calve@colorado.edu)) that includes their CV, names of three references, and a 1-2-page synopsis of their current research interests and how these complement our overall research program.

The Department of Mechanical Engineering at CU-Boulder houses a strong group of research labs interested in biomedical engineering, materials science, imaging, robotics and micro/nanoscale engineering. Together, these labs create a vibrant atmosphere to leverage engineering principles and tools to clarify unanswered questions in biology.

The University of Colorado is an equal opportunity and affirmative action employer committed to assembling a diverse, broadly trained faculty and staff. In compliance with applicable laws and in furtherance of its commitment to fostering an environment that welcomes and embraces diversity, the University of Colorado does not discriminate on the basis of race, color, creed, religion, national origin, sex (including pregnancy), disability, age, veteran status, sexual orientation, gender identity or expression, genetic information, political affiliation or political philosophy in its programs or activities, including employment, admissions, and educational programs. Inquiries may be directed to the Boulder Campus Title IX Coordinator by calling 303-492-2127.

