



## Postdoctoral Fellowships at Stanford University Digital Human Modeling

A team of faculty at Stanford University, including Professors [Garry Gold](#), [Akshay Chaudhari](#), [Scott Delp](#), [Karen Liu](#), [Ellen Kuhl](#), [Oussama Khatib](#), [Fei Fei Li](#), and [Serena Yeung](#) is accepting applications for several Postdoctoral Fellows in digital human modeling. Individuals with backgrounds in biomedical imaging, biomechanics, neuroscience, biomedical physics, biomedical informatics, robotics, and computer science are all welcome to apply.

Our team is developing and applying biomedical imaging and modeling, biomechanics, robotics, and machine learning to study how humans move to achieve athletic performance, recover from injuries, and improve health and wellbeing across the lifespan. To achieve this goal our multidisciplinary team will leverage novel data sources, such as advanced biomedical imaging, real-world wearable sensors and video, multi-scale modeling, and state-of-the-art models of neural control. Our team is supported by a major new interdisciplinary initiative to study human athletic performance and health, the [Mobilize Center](#), the [Restore Center](#), [Stanford's HAI project](#), and other funding sources. Researchers will have access to the several research-only MRI scanners at [The Lucas Center](#) and access to the [Human Performance Biomotion Lab](#).

We are searching for outstanding individuals to join our team and develop new methods to simulate and analyze human movement. To this aim, we want to combine cutting-edge imaging technology with OpenSim ([opensim.stanford.edu](https://opensim.stanford.edu)), a freely available, user extensible software system that is used by researchers around the world to develop models of musculoskeletal structures and create dynamic simulations of movement. In particular, we are interested in developing novel muscle magnetic resonance imaging (MRI) techniques and postprocessing tools to provide subject-specific anatomical and functional data for musculoskeletal modeling. Fellows will be co-advised by two or more members of the faculty team. Funding is available to support fellows for two or more years. Fellows will have the opportunity to build an interdisciplinary scientific network, participate in mentoring graduate and undergraduate students, and present their work at international scientific meetings.

Stanford University is an affirmative action and equal opportunity employer, committed to increasing the diversity of its workforce. We encourage applications from women, members of minority groups, veterans, persons with disabilities, and others who would bring additional dimensions to the university's research and teaching mission.

Candidates must have:

- A PhD in biomedical engineering, electrical engineering, biomedical physics, or related fields

- Strong research skills
- Previous experience with MRI (diffusion MRI or skeletal muscle MRI experience preferred)
- Ability to work in a multidisciplinary team

Experience in one or more of the following areas is also desirable but not required; biomechanics, exercise physiology, image processing, MRI pulse sequence programming, musculoskeletal imaging.

**Interested applicants should:**

(1) Send a letter indicating their interest and experience, a CV, and copies of two representative publications via e-mail to [opensim@stanford.edu](mailto:opensim@stanford.edu). Please also include in your letter the names of 1 to 3 faculty you are interested in working with at Stanford.

(2) Complete the short [online form](#).

(3) Arrange for two letters of reference to be sent to [opensim@stanford.edu](mailto:opensim@stanford.edu) within two weeks of submitting (1) and (2).

We encourage applicants to also send links to software or simulations that they have developed. The review of applications will begin immediately and continue until the positions are filled.