

Dr. Yang Xia Department of Physics

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Postdoctoral Position in µMRI of Cartilage

A postdoctoral position is available immediately in microscopic MRI (μ MRI) study of articular cartilage. This position is funded by a new 5-year R01 grant from the National Institutes of Health (NIH), which ends in 2021. The project aims to determine a set of multidisciplinary molecular parameters that best describes the early changes in osteoarthritic cartilage in animal models and human at microscopic resolution. Quantitative correlation with the whole-body clinical MRI data is anticipated.

Our preferred candidate should have PhD-level training and experience in advanced NMR/MRI experiments and instrumentation (e.g., ultra-short TE imaging, compressed sensing, multi-component relaxometry, pulse programming). Candidates with working skills in connective tissue biology and other imaging modalities would have unique advantage. This position requires a PhD in physics, biophysics, medical physics, bioengineering, or a closely related field.

The successful candidate will join a unique research lab that is famed for its multidisciplinary microscopic imaging studies of cartilage and related musculoskeletal tissues. Our μ MRI system is a Bruker AVANCE II console with a 7T vertical-bore magnet (running ParaVision 4/5/6). Other major equipments in our lab include a polarized light microscopy system (Leica DM RXP with two digital imaging setups), a Fourier-transform infrared imaging system (PerkinElmer Spotlight 300), a microscopic CT system (Skyscan 1174), a mechanical system (EnduraTec ELF 3200), and the full set of equipment for histology and analytical chemistry. More information regarding our lab and some of our recently completed projects can be found from our website.

Interested individuals should send their CV and the contact information for at least three professional references to:

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