

STANFORD

# Postdoctoral Fellowship/ Research Scientist in Neuroradiology Using Advanced MRI

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*Tools*

Human imaging: *in vivo* & *ex vivo* brain specimens

3.0T MR

7.0T MR – human head and small bore for specimens & mice

PET-MR

Prospective motion compensation

DTI/QSM/Hippocampal Subfield Analyses/Quantitative Volumetry

Advanced pulse sequence implementation

Traditional Histology & quantitative correlation with MRI

CLARITY, X-ray microscopy, EM

Machine Learning Applications

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*Scientific Questions*

Neurodegenerative disorders:

Iron in Alzheimer's disease

Sports-related mild traumatic brain injury

Chronic fatigue syndrome

Basic brain anatomy and connectivity

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*Who should apply*

Hard-working applicants with a lot of computer-based skills (image-processing know-how a must - MATLAB, UNIX, FSL, FreeSurfer, R, Fiji, python, etc.). Projects are highly collaborative and interdisciplinary. Experience with advanced MRI and neuroanatomy is required. Good writing skills and excellent references required. Familiarity with histological/molecular methods as well as PET a benefit.

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*Contact*

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