Northern California Institute for Research & Education Job Description

Position Title: Research Scientist, Assistant Level

Reports to: PI, An Vu, PhD

FLSA: Exempt

Department: Radiology

Supervisor Responsibilities: No

Position Definition:

We have an extremely innovative and exciting opportunity for a Research Scientist (Assistant Level) at the Northern California Institute for Health and Education (NCIRE) in San Francisco. The applicant will be involved in developing 2nd Gen 7T MRI technology with the San Francisco Veteran Affairs Health Care System (SFVAHCS), UCSF and UC Berkeley as part of a recently funded BRAIN Initiative R01 project entitled “Breaking the Barriers to Microscale fMRI”. The goal of the project is to develop and integrate several key novel technologies in order to achieve anatomical quality, whole brain, microscale (≤ 500 μm isotropic) fMRI. Key technologies include: Stimulus-Locked K-Space (SILK) fMRI, SLIDER-SMS fMRI, prospective and passive motion mitigation (i.e. technologies provided by Kineticor and Caseforge), dynamic B0 correction (i.e. technologies provided by Siemens, MGH, and Skope). The project will leverage our newly upgraded Siemens 7T Plus scanner (32ch Rx, 8 ch Tx) at the SFVAHCS, as well as the 2nd Gen 7T MRI at UC Berkeley which will include 128 ch Rx, 16 ch Tx and newly designed head gradients (G_{max}=200 mT/m, G_{slew} = 700 T/m/s).

The applicant will have the opportunity to work closely with several world-renowned collaborators including Drs. David Feinberg and Chunlei Liu (UC Berkeley); Dr. Pratik Mukherjee (UCSF); Drs. Benedict Poser and Laurentius Huber (Maastricht); and Dr. Larry Wald (MGH).

The Principal Investigator of the project is An (Joseph) Vu, PhD, UCSF Assistant Professor of Radiology and Biomedical Imaging, who is also Director of Advanced Imaging Technology at the Veteran Affairs Advanced Imaging Research Center (VAARC).

Essential Functions / Job Responsibilities:

- Develop novel technology on 7T MRI systems at SFVAHCS, UCSF and UC Berkeley
- Work with Principal Investigator and collaborators to generate hypotheses, program pulse sequences / reconstruction code, plan experiments, scan participants and interpret data
- Seek out new funding opportunities and assist with writing grants and proposals
- Write abstracts and manuscripts

Job Requirements & Desired Qualifications:

- PhD or its equivalent in Physics, Electrical Engineering, Bioengineering, or related fields
- 5 years of MRI research experience
- Pulse sequence programming experience
- MRI reconstruction experience
- Experience in MATLAB/Python and Linux-based command line operations
- Excellent teamwork, time management and organizational skills
- Demonstrated experience in scientific writing: must be able to provide examples of material that the applicant has written (e.g. abstracts, manuscripts, or grant applications).

Working Conditions/Environment:
For more information about NCIRE -- The Veterans Health Research Institute or to apply for this exciting opportunity, please visit us at www.ncire.org. You may apply directly, by cutting and pasting the below link into your browser:

https://recruiting.ultipro.com/NOR1032NCIRE/JobBoard/82cac330-9aa5-417d-9b64-568d383f4ea0/OpportunityDetail?opportunityId=fa420fcf-c2d8-4f10-ad52-10249832894f

NCIRE --The Veterans Health Research Institute is proud to be an Equal Opportunity Employer.

Per San Francisco's Fair Chance Ordinance, NCIRE - The Veterans Health Research Institute will consider qualified applicants with criminal histories

• Principals only. Recruiters, please don’t contact this job poster.

**Work Conditions/Environment**

The work environment for this position is in a medical research laboratory. It may include some minor annoyances such as noise, temperature variations, etc. The incumbent may sustain posture in standing or seated position and may utilize a computer terminal for prolonged periods of time.

**Employee:** I have reviewed the above description with my supervisor and am aware of the duties as outlined.

Employee Print Name: ____________________________________________

Signed________________________________________Date:____________________

**Supervisor:** I have reviewed the above description with the employee and agree with their outlined duties.

Signed________________________________________Date:____________________

Supervisor Print Name: ____________________________________________