

## Neuroimaging Post-doctoral Fellowship

The **Vanderbilt Memory & Alzheimer's Center** is pleased to announce an opening for a full-time post-doctoral fellow to carry out research in advanced MR imaging and image analysis in older adults with normal cognition, mild cognitive impairment, and Alzheimer's disease. The fellow will be involved in an active, NIH-funded clinical research program, including the longitudinal *Vanderbilt Memory & Aging Project*, focusing on risk factors and early detection of abnormal cognitive aging. This research portfolio emphasizes the intersection of neurodegeneration due to Alzheimer's disease and cerebrovascular changes. The fellow will contribute to neuroimaging data acquisition and analysis, including developing and honing expertise in one or more structural or functional imaging modalities. The fellow will be responsible for generating manuscripts relating available imaging data (e.g., T1, FLAIR, arterial spin labeling, diffusion tensor imaging, susceptibility weighted imaging, angiography of the Circle of Willis, AV45-PET, or FDG-PET) to the extensive participant phenotyping available through the *Vanderbilt Memory & Aging Project*. Available clinical data include (but are not limited to) comprehensive neuropsychological information, serum and plasma biomarkers, cerebrospinal fluid biomarkers, muscle imaging markers, and systemic vascular health information (e.g., ambulatory blood pressure). More details of our research program can be found at [www.vanderbiltmemory.com](http://www.vanderbiltmemory.com).

The candidate will train under the mentorship of fellowship supervisors, Dr. Angela Jefferson and Dr. Manus Donahue, in partnership with the Vanderbilt Memory & Alzheimer's Center's interdisciplinary collaborators (e.g., neuroradiology, biomedical engineering, physics, neurology, geriatrics, cognitive neuroscience, neuropsychology, and cardiology). A major area of training emphasis will be developing and refining grantsmanship skills, including independently writing and submitting intramural and extramural funding applications to procure independent funding. Didactics include (but are not limited to) writing studios, laboratory meetings, computational imaging workshops, and seminars in neuroimaging and Alzheimer's disease.

### Resources & Training Environment

Vanderbilt is a top-15 medical school and ranked 9<sup>th</sup> in the country for NIH research funding. Select institutional resources to support training and research opportunities include the Office of Biomedical Research Education and Training ([www.bret.mc.vanderbilt.edu](http://www.bret.mc.vanderbilt.edu)), the Vanderbilt Institute for Clinical and Translational Research ([www.mc.vanderbilt.edu/victr/pub](http://www.mc.vanderbilt.edu/victr/pub)), and the Vanderbilt University Institute of Imaging Science ([www.vuiis.vanderbilt.edu](http://www.vuiis.vanderbilt.edu)). This latter resource offers a state-of-the-art Center for Human Imaging facility that includes two 3T research-dedicated Philips Achieva MRI/MRS scanners and one research-dedicated Philips Achieva MRI/MRS 7T scanner along with a full complement of physiological monitoring equipment. PET facilities are based in the Department of Radiology.

### Candidate Requirements

Candidates should have a PhD in biomedical engineering, physics, computer science, neuroscience, or related discipline at the time of fellowship appointment with prior experience in MR analysis and an interest in learning new techniques. A neuroscience or neuroanatomy background is required. Programming skills in MATLAB, Python, Unix/Linux, and scientific computing are highly desired as is FSL and FreeSurfer experience. Excellent written and oral communication skills are required. The fellowship start date is flexible (e.g., between June 1<sup>st</sup> and September 1<sup>st</sup> 2014) and is available for up to three years. Candidates must be able to meet eligibility requirements to work in the United States at the time of appointment and continue working legally for the proposed term of employment.

### Application Instructions

To apply, please email **Dr. Angela Jefferson** ([angela.jefferson@vanderbilt.edu](mailto:angela.jefferson@vanderbilt.edu)) with a cover letter detailing your interest in this position (including your past relevant research and work experiences), your current curriculum vitae, and contact information for 3 references (to include at least 1 professional and 1 academic reference). Be sure to specify in your cover letter that you are applying for the "**Neuroimaging Post-doctoral Fellowship**." Applications should be received no later than **March 30<sup>th</sup>, 2014**. Early submission is strongly encouraged.