Post-doctoral positions in hyperpolarized $^{13}$C neuroimaging research

Date: April 16$^{th}$, 2019

Location: Mission Bay Campus, University of California San Francisco

Deadline: open until filled

Description: Postdoctoral positions available for highly motivated candidates with a strong background in MR neuroimaging, biochemistry and/or brain metabolism to join the Chaumeil Lab in the UCSF Biomedical Imaging Lab/Surbeck Laboratory for Advanced Imaging at the University of California San Francisco, California, USA.

The goal of our research program is to develop innovative, mechanism-driven MR imaging/spectroscopy approaches for improved detection of neurological disorders and monitoring of therapeutic response. Our lab is part of the Quantitative Bioscience Institute (QBI, https://qbi-ucsf.org), whose goal is to foster collaborations across biomedical and physical sciences, seeking quantitative methods to address pressing problems in biomedicine. With the support of the NIH-funded Hyperpolarized $^{13}$C Resource center (https://radiology.ucsf.edu/research/labs/hyperpolarized-mri-tech), our work is mainly focused on the hyperpolarized DNP-MR technology and high field MRI methods. We use preclinical models of Multiple Sclerosis, Traumatic Brain Injury, Alzheimer’s disease, cerebral small vessel disease, and lymphomas (to date). Based on the knowledge of metabolic changes associated with these neurological disorders, we develop new imaging agents and optimized acquisitions strategies for diagnosis and treatment. We mechanistically validate our approaches using molecular, cellular and histological assays.

Job requirements:
1. Completed Ph.D. in MR Imaging/Spectroscopy, Neuroimaging, Biochemistry, Biomedical Engineering or a related field, with an emphasis on brain.
2. Knowledgeable within one or more of the following subjects: MRI/S, X-nuclei spectroscopy, metabolism, hyperpolarized $^{13}$C, DNP, MR sequence programming, neurological disorders, metabolomics.
3. Proven ability to clearly communicate novel research findings through oral presentation and written publication.
4. Ability to work with people who have both similar and different backgrounds.
5. Organization skills and ability to solve problems & make decisions through critical thinking process
6. Evidence of top quality research on the above specified areas in the form of published papers in top conferences/journals.

Preferred characteristics:
1. Experience with data analysis/post-processing, using major techniques on R, Python or Matlab.
2. Experience with preclinical models of disease (animal handling procedures)
3. Experience with quantitative biochemistry for metabolism (western blots, activity assays, PCR, immunohistochemistry, tissue extraction, etc.)

The successful candidate is expected to publish his/her research results in leading international journals and conferences. She/he is also expected to contribute to the set-up of new project proposals, participate in funding activities, supervising Ph.D. candidates and collaborate with scientists from different disciplines. We anticipate providing significant training in those disciplines with which the candidate is less familiar. Mentoring will be provided to facilitate the candidate’s transition to an independent research career, if desired. Interested individuals are encouraged to email a curriculum vitae, a list of three references, and a statement of research interests and career goals to Myriam M. Chaumeil, PhD, myriam.chaumeil@ucsf.edu.

The University of California San Francisco is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, protected veteran or disabled status, or genetic information. Further information about the University of California, San Francisco, is available at diversity.ucsf.edu. UCSF seeks candidates whose skills, and personal and professional experience, have prepared them to contribute to our commitment to diversity and excellence, and the communities we serve.

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