Postdoctoral Position for Sodium MRI Research
UCSF Department of Radiology and Biomedical Imaging, Department of Dermatology, and Computational Precision Health

A postdoctoral position is available with a joint appointment in the Department of Radiology and Biomedical Imaging at the University of California San Francisco (UCSF) in Dr. Jeremy Gordon’s laboratory and in the Departments of Dermatology and Computational Precision Health in Dr. Katrina Abuabara’s laboratory. The goal of this post-doctoral research is to lead the development and application of new Sodium MR techniques for biomedical research studies. This new molecular imaging method is designed to provide novel measures to characterize both normal and pathologic states in human studies that are not adequately assessed with current methods. The fellow will contribute to a program of study aiming to understand causes and consequences of sodium storage in the skin, beginning with atopic dermatitis (eczema). For the 32 million people in the U.S. currently living with atopic dermatitis, the waxing and waning course of their chronic disease is impossible to predict, does not respond uniformly to treatment, and results in substantial economic impact and decreased quality of life. Understanding drivers of the disease activity is essential to developing treatments, and sodium/salt consumption is a likely contributor. The team will test novel hypotheses about the role of dietary salt intake and skin barrier function on sodium storage in the skin and atopic dermatitis severity and persistence in a new cohort of older adult men and women followed for two years.

Facilities: UCSF hosts a large NIH-funded NIBIB center equipped with 3T and 7T human MRI scanners dedicated for research. For more information, please visit the center website at: https://radiology.ucsf.edu/research

Job Description and Responsibilities: UCSF has established a major research center in MR for cell, tissue, & in vivo studies with expanding engineering needs and opportunities. This postdoctoral scholar will be responsible for developing new sodium MR methods and lead new biomedical research studies at 7T. This will include sequence development using the high-field GE and Siemens clinical MRI scanners, as well as optimizing data acquisition, reconstruction, and analysis methodologies for sodium quantification.

Qualifications: The position requires proficiency in advanced data analysis. The ideal candidate would have a PhD in Medical Physics, Biomedical Engineering, Electrical Engineering, or a related discipline; a background in experimental NMR/MRI techniques and research studies; and be proficient in Matlab or Python. Candidates with an advanced degree, advanced skills in bioinformatics and data analysis, and an interest in skin biology and public health are also encouraged to apply.

Please Apply to: Prof. Jeremy Gordon: Jeremy.Gordon@UCSF.edu
Candidates should provide the following: Curriculum vitae (CV), Statement of research interests, & references.

The University of California San Francisco is an affirmative action, equal opportunity employer and complies with all applicable laws and regulations. All qualified applicants are encouraged to apply, including minorities and women.