2 Postdoctoral Scientist Positions Available - Join Us!

In Vivo Magnetic Resonance Spectroscopy for Preclinical and Clinical Research

We are seeking two sharp, well-trained and enthusiastic individuals to complement our team at the Magnetic Resonance Scientific Engineering for Clinical Excellence (MR SCIENCE) Laboratory in the Departments of Biomedical Engineering and Radiology at Columbia University in the City of New York.

The focus of the positions will be on the application of single-voxel MR spectroscopy (MRS) and spectroscopic imaging (MRSI) methods for preclinical and clinical applications at 3T - 9.4T. The work will involve all aspects of in vivo MRS/MRSI including design and implementation of state-of-the-art sequences, organization of research studies in collaboration with clinical and industry partners, experiment execution, data analysis and interpretation.

Members of my laboratory regularly attend international conferences and workshops, and enjoy ample opportunity for career development and professional growth both inside and outside the laboratory.

We have fascinating projects in research areas from brain to body, rodent to human, and psychiatry to oncology! Check out our website for ongoing research or contact me directly. The latest two newly funded projects are:

- Pediatrics / human: Establishing early brain signatures associated with maternal immune activation (NIH R01-MH126133, 5 years, PIs: Spann/Scheinost/Juchem)
- Oncology / preclinical: Measuring ferroptosis in vivo using magnetic resonance spectroscopy (Blavatnik Fund for Innovation, PIs: Juchem/Olive)

Minimum Experience and Skills:
- PhD in chemistry, physics, biomedical engineering or related discipline
- Strong research record and excellent verbal and written communication skills
- Proficiency with programming languages (MATLAB/Python, C/C++, Bash etc.)
- Ability and willingness to work in an interdisciplinary team environment

Desirable Experience and Skills:
- Hands-on in vivo MRS/MRSI experience
- MR sequence design and implementation
- Siemens (IDEA), General Electric (EPIC) and/or Bruker (ParaVision)
- Preclinical and clinical research

The positions are available immediately. CV and potential further inquiries should be sent directly to me (cwj2112@columbia.edu). Review of applications will continue until the positions are filled.

Best wishes,

Christoph Juchem, Ph.D.
Associate Professor
Biomedical Engineering & Radiology
Columbia University in the City of New York