



Christoph Juchem, Ph.D.  
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## **Postdoctoral Research Scientist**

### **In Vivo Magnetic Resonance Spectroscopy for Preclinical and Clinical Research**

We are seeking a sharp, well-trained and enthusiastic individual to complement our team at the [Magnetic Resonance Scientific Engineering for Clinical Excellence \(MR SCIENCE\) Laboratory](http://MRSCIENCE.Laboratory) in the Departments of Biomedical Engineering and Radiology at Columbia University in the City of New York. Our laboratory pursues MR engineering in the fields of magnetic resonance imaging and spectroscopy to advance both their research and clinical potential.

We have fascinating projects spanning MRS/MRSI applications in areas from brain to body, rodent to human, and psychiatry to oncology.

The focus of the position will be on the development 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* magnetic resonance spectroscopy including design of state-of-the-art MRS/MRSI sequences, their implementation and evaluation, organization of *in vivo* studies in collaboration with clinical partners, recruitment of volunteers and patients, experiment execution, data analysis and interpretation.

#### **Minimum Experience and Skills:**

- PhD in chemistry, physics, biomedical engineering or related discipline
- MRS/MRSI sequence design and implementation
- 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:**

- Siemens (IDEA)
- General Electric (EPIC)
- Bruker (ParaVision)
- Preclinical and clinical research

The position is available immediately. CV, the names and contact information of three references, and potential further inquiries should be sent directly to Christoph Juchem, Ph.D. ([cwj2112@columbia.edu](mailto:cwj2112@columbia.edu)). Review of applications will continue until the position is filled.

Sincerely,



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