Postdoctoral Position(s)

We are seeking one or two motivated Postdoctoral Research Fellow(s) for our MR research laboratory at Memorial Sloan Kettering Cancer Center, New York City.

Our MR Research Laboratory performs preclinical (cells and small animals) studies of tumor metabolism, treatment response and drug pharmacokinetics using multinuclear MRI and MRS. Our current research concentrates on \textit{in vivo} MRI/MRSI of the tumor microenvironment (macrophage infiltration, hypoxia, pH, vascular changes) and metabolism in response to treatment. The laboratory studies \textit{in vivo} tumor metabolism and the effects of novel drugs under development for future clinical translation, and \textit{in vitro}, live cells in our MR-compatible cell perfusion system. We also study \textit{in vitro} cell metabolism responses to exposure to micro-environmental stress conditions and/or treatment. Multidisciplinary projects are performed in collaboration with experts in immunology, radiobiology and nuclear medicine programs and include multimodality imaging applications beyond MR.

Our facility is equipped with a 7.0T 30 cm horizontal Bruker MR spectrometer with a PET insert, an 11.7T vertical MR system, and will take delivery of a 9.4T/20 cm horizontal bore system this summer. The MR laboratory has a well-equipped electronics workshop, computer network, and chemical and cell culture laboratory. Adjacent facilities for small animal imaging studies include bioluminescence imaging, microCT, microPET, microSPECT, ultrasound, and a micro-irradiator. Collaborations with other imaging laboratories at MSKCC are ongoing.

The successful candidate(s) would apply live-cell MR perfusion studies and molecular imaging of small animals to elucidate cancer biology, physiology, metabolism, and/or treatment response. His/her primary project would focus on studying metabolic inhibitors in current clinical use in non-oncologic diseases that have \textit{in vitro} and \textit{in vivo} anti-neoplastic activity. We anticipate studying (breast and prostate) tumor and immune cell metabolism, in addition to imaging macrophage infiltration by MR. The research requires a strong background in MR physics. Matlab or IDL programming and MR coil building skills are desirable. The successful candidate should be comfortable working (or learning how to work) with cell culture / bioreactor, and/or small animals, have a strong interest in cancer biology and therapy, and enjoy interacting with other scientists and clinicians. Experience in immunology would be an asset. A doctoral degree in physics/biophysics, biomedical engineering, biochemistry, biology, or closely-related field is required. Salary is commensurate with experience.

Qualified candidates should submit their CV and three references to:
Dr. J. A. Koutcher (koutcej@mskcc.org) or Dr. E. Ackerstaff (ackerste@mskcc.org),
Memorial Sloan Kettering Cancer Center; Dept. of Medical Physics
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