

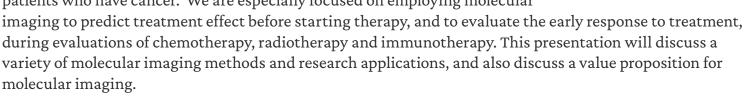


Molecular Imaging of the Tumor Microenvironment

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Tumor acidosis, hypoxia, and vascular perfusion are well-known characteristics of the tumor microenvironment. We have developed MRI, MR Fingerprinting, PET/MRI, electron paramagnetic resonance imaging (EPRI), and photoacoustic imaging (PAI) to quantitatively measure extracellular pH, oxygenation, and pharmacokinetic transport rates in solid tumors. We apply these molecular imaging methods to preclinical tumor models, and we have translated some of our methods to evaluate patients who have cancer. We are especially focused on employing molecular



ABOUT the SPEAKER

Dr. Marty Pagel is a Professor in the Departments of Medical Physics and Radiology at the University of Wisconsin-Madison. His research in academia and industry has evolved from chemistry to biomedical engineering to molecular imaging. His current research employs a variety of imaging modalities to interrogate biomarkers of the tumor microenvironment and wound healing. He has developed these methods for pre-clinical and clinical imaging, especially to evaluate cancer therapies and surgery. In addition, Dr. Pagel has taught courses in chemistry, biomedical engineering, cancer biology, and physiology, and many workshops about scientific writing. Dr. Pagel has held many leadership positions in the molecular imaging research community, including roles in scientific societies, many grant review panels, and journals focused on molecular imaging.

