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Faculty & Staff

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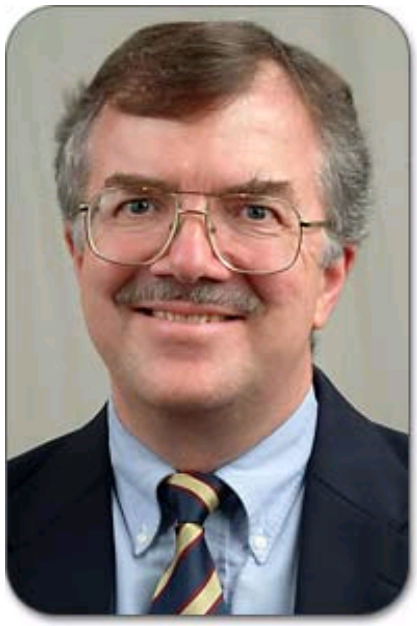

Educational Background

- B.A., University of Northern Colorado, 1975
- M.A., University of Northern Colorado, 1980
- Ph.D., Syracuse University, 1983
- M.B.A., Worcester Polytechnic Institute, 1995

Research & Teaching Interests

Magnetic resonance imaging (MRI) evaluation of therapeutic interventions in stroke; MRI and magnetic resonance spectroscopy (MRS) methods for evaluation of tumor oxygenation and response to therapy; characterization of structural information in fluid-saturated porous media using diffusion-weighted MRI/MRS

IQP Advising Interests

Impact of new technologies in health care; economics of health care; effect of technology on social systems; technology and organizational behaviors; computers & education; education & technological literacy

Research

- Development of magnetic resonance imaging (MRI) methods for the evaluation of therapeutic interventions in acute stroke.
- Development of fluorine-19 (^{19}F) MRI and magnetic resonance spectroscopy (MRS) methods for measuring tumor oxygenation and evaluating adjuvants for tumor therapy.

- Characterization of structural information in fluid saturated porous media using diffusion imaging and spectroscopy.

Learn More About Magnetic Resonance Imaging

Recent Publications

- Multispectral Tissue Characterization in a RIF-1 Tumor Model: Monitoring the ADC and T2 Responses to Single-Dose Radiotherapy. Part II, Erica C. Henning, Chieko Azuma, Christopher H. Sotak, and Karl G. Helmer, *Magn. Reson. Med.* 57, 513-519 (2007).

- Multispectral Quantification of Tissue Types in a RIF-1 Tumor Model with Histological Validation. Part I, Erica C. Henning, Chieko Azuma, Christopher H. Sotak, and Karl G. Helmer, *Magn. Reson. Med.* 57, 501-512 (2007).

- A Paramagnetic Contrast Agent for Detecting Tyrosinase Activity, Manuel Querol, David G. Bennett, Christopher Sotak, Hye Won Kang, and Alexei A. Bogdanov, Jr., *ChemBioChem*, in press (DOI: 10.1002/cbic.200700157).

- Visualization of Cortical Spreading Depression Using Manganese-Enhanced MRI, Erica C. Henning, Xiangjun Meng, Marc Fisher, and Christopher H. Sotak, *Magn. Reson. Med.* 53, 851-857 (2005).

- Perfusion and Diffusion Imaging in Acute Focal Cerebral Ischemia: Temporal Versus Spatial Resolution, Juergen Bardutzky, Qiang Shen, James Bouley, Christopher H. Sotak, Timothy Q. Duong, and Marc Fisher, *Brain Res.* 1043, 155-162 (2005).

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