Kidney Cancer Radiomics & Machine Learning Postdoctoral Researcher

A postdoctoral training position is available in the laboratory of Ivan Pedrosa, M.D., Ph.D., in the Department of Radiology at UT Southwestern Medical Center to study Radiogenomics and Machine Learning Approaches to Develop Predictive and Prognostic Biomarkers in Kidney Cancer. The Pedrosa laboratory has several exciting projects related to development of novel imaging acquisitions and analysis, such as quantitative magnetic resonance imaging (MRI) and other imaging techniques, to evaluate the tumor microenvironment in patients with kidney cancer. These include the non-invasive evaluation of tumor angiogenesis, lipid metabolism, and immunogenicity and their correlation with genomic and molecular alterations in the same tumors. Specifically, we seek to investigate the ability to predict non-invasively recently discovered molecular angiogenic and immunogenic signatures in clear cell renal cell carcinoma (ccRCC) that are associated to improve response to systemic anti-angiogenic and immune therapies, respectively.

The Pedrosa Lab is located in the Department of Radiology and Advanced Imaging Research Center (AIRC) at UT Southwestern Medical Center. Primary investigations will use imaging data from a large cohort of patients enrolled in Phase III clinical trials. Additional image datasets are generated in a state-of-the-art dual-transmit, whole-body, digital 3T MRI scanner. There will be opportunities to develop additional research initiatives related to tumor pathophysiology at other 3T and the 7T whole body scanner in the AIRC. There will be close interactions with investigators in the Kidney Cancer Program (KCP) of the Simmons Comprehensive Cancer Center.

Candidates must hold a Ph.D. and/or M.D. degree with experience in medical image analysis and segmentation, leading to publication in peer-reviewed journals. Programming skills in MATLAB/Python/C/C++/IDL is highly recommended. Other skills including MR pulse sequence programming, image processing, radiomics, and artificial intelligence are welcomed.

Information on our postdoctoral training program, benefits, and a virtual tour can be found at http://www.utsouthwestern.edu/postdocs.

Interested individuals should send a CV, statement of interests, and a list of three references to:

Bridgette Young, on behalf of:
Ivan Pedrosa, M.D., Ph.D.
UT Southwestern Medical Center
5323 Harry Hines Blvd.
Dallas, TX 75390-8896
bridgette.young@utsouthwestern.edu
https://www.utsouthwestern.edu/labs/pedrosa/

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