Post-Doctoral Fellowship for Machine Learning-based Estimation of Quantitative Biomarkers

We are looking for a creative post-doctoral candidate to develop machine learning-based estimation methods for parameter mapping, in particular for multi-compartment relaxometry and quantitative magnetization transfer. The successful candidate will develop neural networks for fitting hybrid-state models (see https://www.nature.com/articles/s42005-019-0174-0) to heavily undersampled data, similar to MR fingerprinting, with an emphasis on noise propagation and on learning a compact data representation.

Our research aims at the hand-in-hand development of biophysical models, pulse sequences, and image reconstructions. Our team is highly interdisciplinary and includes collaboration partners from NYU Courant Institute of Mathematical Science and NYU Center for Data Science, as well as clinical collaboration partners at NYU School of Medicine.

About our group
The Center for Advanced Imaging Innovation and Research (CAI²R), led by Daniel Sodickson, MD, PhD, is a research facility embedded in the radiology department of the NYU School of Medicine. Our mission is to connect basic research on biomedical imaging with routine patient care. Located at the heart of Manhattan, our center comprises more than 100 researchers, basic MR scientists, clinical investigators, and research technicians. We take pride in our collaborative atmosphere and expect our team members to be team players. To learn more about us, visit https://cai2r.net/.

Salary and benefits
The position is funded by an NIH R21 grant and will initially be for two years with an option to extend, contingent on performance. Salary is commensurate with experience. NYU School of Medicine offers a competitive benefits package. Subsidized housing in walking distance from the lab is subject to availability.

Requirements for this position include
- PhD in physics, electrical engineering, computer science, or in a related field
- MRI research experience
- Programming skills, preferably in MATLAB, Python, and/or C++
- Experience with PyTorch is a plus

We are committed to diversity and inclusion in all aspects of recruiting and employment. All qualified individuals are encouraged to apply and will receive consideration without regard to race, color, gender, gender identity or expression, sexual orientation, national origin, age, religion, creed, or disability.

Please send applications (CV & publication list) to Jakob Assländer (jakob.asslaender@nyumc.org) and Florian Knoll (florian.knoll@nyumc.org).