Dan Vigneron and HMTRC Team Renews $6M NIH Funding with Perfect Score

March 24, 2015

The NIH-funded UCSF Hyperpolarized MRI Technology Resource Center (HMTRC) was recently reviewed on March 24, 2015 for a five year, $6M renewal with great success receiving the highest possible score. In its first four years, this center funded by NIBIB has developed new methods, hardware, and analysis techniques for this powerful new molecular imaging approach; all driven by close interactions with separately funded collaborative projects and resulting in over 75 publications and over 150 conference presentations. This Biomedical Technology Resource Center also spawned/supports currently more than 15 NIH grants and has created an extensive infrastructure that extends nationally and internationally to support extra- and intramural collaborators, a new website, highly successful hands-on workshops, and other focused training and dissemination activities.

In this second funding cycle through 2021, the center aims to develop exciting new hyperpolarized MR technology in a push-pull fashion with 10 collaborative projects in order to not only enhance their funded research programs, but also through dissemination and training, to advance the field in general and support the 8 Service Projects that plan to use these unique technology resources. Since the original BTRC project submission in 2011, the first Phase 1 clinical trial in prostate cancer patients was conducted at UCSF and now four of the Collaborative Projects include future human studies. Therefore the center structure and goals of the center have been modified to not only advance preclinical HP MR, but also to include new technology development, administrative infrastructure (including a Translation Advisory Committee), training, and dissemination to enable and advance future human studies at UCSF and other institutions with enhanced training through education, demonstration, and dissemination.

The Collaborative Projects and Service Projects cover a wide variety of applications including cancer aggressiveness, response to targeted therapies, diabetes, juvenile arthritis, kidney disease, liver fibrosis, heart disease and neonatal brain injury. This research seeks to advance basic biomedical science, radiological diagnosis, new pharmaceutical therapies, new imaging biomarkers, and translation for future clinical trials. With great institutional support, this center has improved its equipment infrastructure and a new website with enhanced content and functionality.

To learn more about the HMTRC, please visit us at http://www.radiology.ucsf.edu/research/labs/hyperpolarized-mri-tech-2