MMRRCC’s Role in Providing Imaging services to the Penn Community

MMRRCC provides:
Management
Technology Support
Collaborative Scientist Support

SAIF
30 active MRI protocols
- 9.4 T 30 cm
- 4.7 T 50 cm
- 9.4 T vertical

CAMRIS
150 active protocols
- 2.0 T Stellar Chance
- 1.5 T Sonata
- 3T Trio
- 3T TIM Trio
- Glenolden Trio
- 7T

Center for Diffuse Optical Spectroscopy & Imaging (DOSI) (Proposed)
- TRS/DCS/FD
- Parallel Plate Breast
- Small Animal

7T

3T TIM Trio
Glenolden Trio
3T Trio
1.5 T Sonata
2.0 T Stellar Chance
30 active MRI protocols
• PERMIT: Personalized Medicine in Translation
• PINB: Program in Novel Biotherapeutics
• KMAS: Kinetics, Modeling and Simulation Core
• TRC: Translational Research Center
• BIT: Bioinformatics in Translation
• DOT: Dissemination of Translation
ITMAT Investigator Community

BIIT

TBIC: Portal to Translational imaging Research Education Service

Genomics
Lipidomics
Metabolomics

Basic Imaging Research Laboratories
- Laboratory for structural Magnetic Resonance
- MMRRCC
- Molecular Imaging
- PET Instrumentation
- Radiochemistry
- Medical image Processing Lab
- Section for Biomedical Image Analysis
- Gee Lab
- CFN
- NTROI
- Optical Imaging

Imaging Core Facilities
- CAMRIS
- CACTIS
- Ultrasound
- PET
- MEG
- CHOP Imaging Core
- SAIF
High Impact of Translational Activities of MMRRCC

- Completing multi-center trials of $T_1\rho$ as a marker of cartilage integrity
- Initiating several trials of DCE MRI leveraging back projection and sub aperture / KWIC reconstruction
- Collaborating with Siemens on a commercial version of ASL that will make this technology widely available
- Collaborating with NHLBI to develop a $^{3}$He functional imaging sub study as a companion to Genetic determinants of COPD susceptibility trial.
- Participating as part of the NTROI in multi center trials of optical imaging response to neo-adjuvant treatment of breast cancer