# PET (mMR) New Project Checklist

#### Database Account

- Most of the steps needed to initiate studies in the BMC are conducted and/or tracked through the <u>BMC database</u>. Click <u>here</u> to request a database account. Requests are typically processed within 48 hours.
- Once your database account is approved, you should log into the database and carefully read the material presented there.

## **ALBMC Approval**

- New projects must be submitted to the <u>BMC database</u>. It should be submitted under the primary Pls account (pick one Pl and stick with that Pl throughout the setup process). This should be the Pl who will receive the data and whose name will appear on the scheduling calendar.
- 2. After logging in, click on "Projects" on the left side of the page.
- 3. If this is a completely new project choose "Add New Project."
- 4. If you are adding a PET component to an already approved project choose "Use as a Template for New Project," and make all necessary changes.
- 5. After clicking "submit to database for storage," click "Add" at the bottom. You will then see another tab that says "submit for review." To submit this project for review, please select and upload a file that provides a one to five page scientific summary of your project. Uploaded files must be in PDF, RTF, plain text or Microsoft Word format.
- 6. After the submission is complete your project will be reviewed. The reviewers may respond with questions that will need to be answered before the study can be approved.
- Scheduling tickets are generally issued shortly after a project has been approved. If all items on the Safety Training, IRB and Financial checklists detailed below have been completed, you will be able to schedule studies through the <a href="mailto:bmap website">bmap website</a>.
- 8. After your project is approved and your scanning protocol has been established, please complete a Scanner Protocol Form.

# IRB & MRSC/RDRC Approval

- 1. Please make sure your project is also submitted to the <u>Institutional Review Board</u> (IRB), and the <u>Medical Radiation Safety Committee (MRSC)and/or Radioactive</u> <u>Drug Research Committee (RDRC)</u>. All applications must be approved before scans may begin.
  - Note: FDG, Florbetapir, Flortaucipir and NaF scans are not considered investigational, so you do not need to complete the RDRC part of the MRSC application.
- It is recommended that you review your IRB materials with one of our technologists before submitting them to the IRB review process. This will reduce the likelihood that you will need to resubmit the IRB materials at a later date to conform to ALBMC requirements.

- 3. Once you have IRB approval, you should <u>enter your consent form and IRB approval information</u> in the <u>ALBMC database under the same Primary Pl's account.</u>
- 4. All consent forms, IRB approval notices and MRSC approvals must be reviewed by BMC staff prior to scanning. Once your protocol has been accepted at the BMC, please submit an electronic copy of the IRB approval notice, consent form(s) and MRSC approvals to Mary Susselman for review.

## Safety Training Checklist

At least one person from your lab must be certified to serve as an emergency "safety second" during scans. The BMC Tech/CNMT will run the scans. The CNMT does not need to be scheduled/requested separately. If you scan is approved then the CNMT is available.

- 1. Click <u>here</u> for detailed information on safety training.
- 2. Click <a href="here">here</a> for detailed information on MRI safety training

PET researchers must do both radiation safety training and MRI safety training since the scanner is a hybrid PET/MRI.

## **PET Acquisition**

### Scheduling:

If all items on the above checklists have been completed, you will be able to schedule studies through the <a href="mailto:bmap website">bmap website</a>. The BMC Tech/CNMT will run the scans, but one safety certified member of your lab must be present during the scans to serve as a "safety second." The CNMT does not need to be scheduled/requested separately. If you scan is approved then the CNMT is available.

#### **Scanning Protocol:**

To create a PET scanning protocol, please contact Mary Susselman (x64291) to set up a protocol meeting. Things to have ready/to think about before this meeting:

- 1. Which Radiopharmaceutical(s) are you injecting?
- 2. What is the dose (mCi) amount for the PET scan?
- 3. How many injections will there be?
- 4. Angiocatheter or butterfly needle?
- 5. Do you need a glucose reading?
- 6. Do you want a saline IV drip or just a saline flush?
- 7. Are there any blood draws associated with the PET scan? (i.e. is this study qualitative or quantitative)
- 8. Do you want to use a fiducial marker to label the left/right side of the brain?
- 9. Will there be an uptake period outside of the scanner? If yes, how long?
- 10. Which attenuation correction map do you want to use
  - 1. MRAC\_Brain\_HiRes
  - 2. MRAC UTE
- 11. How long is the emission scan?
- 12. How many emission scans?

- 13. Do you want to use sinogram or list mode for the emission(s) scan?
- 14. If list mode, do you want it reconstructed into frames? (i.e. 30min scan could be 5 frames x 6min each)
- 15. Output image type?
  - 1. both or uncorrected
- 16. Recon method?
  - 1. HD PET
  - 2. 3D Iterative
  - 3. Filtered Backprojection
- 17. How many iterations (8 is the max, 3 is the default)? (scanner has a set # of subsets = 21)
- 18. Do you want any X or Y offsets?
- 19. Matrix size? 128, 172, 256, 344, 512
- 20. What zoom do you want to use? (1.0 is the default)
- 21. Filter?
  - 1. All-pass
  - 2. Boxcar
  - 3. Butterworth
  - 4. Gaussian
  - 5. Hamming
  - 6. Hann
  - 7. Parzen
  - 8. Shepp
- 22. FWHM? (2.0 is the default)
- 23. Are there any special needs regarding your project?
- 24. Who needs access to the scan data?
- 25. Who needs access to the building?

#### Radiotracer Orders

All PET subjects must have a valid radiotracer order for each PET study.

How to Submit a Radiotracer Orders

# **Building and Data Access**

- Bioreader access to the scanners is limited to individuals who have been fully safety certified and who have active MRI protocols. Please submit an <u>access request</u> <u>form</u> to <u>Ludmila Budilo</u> for building and scanner access.
  - Access areas include the 3T scanner, mMR scanner, changing room, prep room or NML lab, as appropriate for conduct of approved protocols.
  - Please note, <u>volunteers</u> are not allowed to assist with PET scans per the UCLA volunteer office.
- 2. For data access, please submit a <u>Network Access Form</u> to <u>James Widanta</u> to request a network account.

#### Financial

1. Click here for mMR pricing.

2. Fund numbers to pay for scans must be on file and verified as a prerequisite for scanning. Fund transfers must be approved by the fund manager before scanning can begin. Tracking of fund numbers and fund transfers into an BMC credit account are handled through the <a href="MMC database"><u>BMC database</u></a> where you will need to set up an external fund under the same Primary Pl's account. For additional questions please contact <a href="Ludmila Budilo"><u>Ludmila Budilo</u></a>.