

RESEARCH
LEADERSHIP COUNCIL

Thursday, December 19, 2019
4:00 to 5:00 pm
CINJ Boardroom 2003

Attendees:

Eileen White, Edmund Lattime, X.F. Steven Zheng, Adam Berger, Anita Kinney, Shridar Ganesan, Zhiyuan Shen, Linda Tanzer, Cristine Delnevo (call-in), Stephen Burley (call-in), Paul Novembre, Gina Londino-Greenberg

Agenda

1. Other Business

- Shridar Ganesan reported that he and Yibin Kang planned to combine their Cancer Genomics Retreat with the Rutgers University/Princeton University 2020 Annual Cancer Research Symposium being planned for the Fall at Princeton University, since this event will include a Cancer Genomics session.
- They also plan to introduce their Cancer Genomics Pilot Award RFA in conjunction with this Fall event.

2. Plans for animal imaging facility (Berger)

- The purchase of an ultrasound machine made fiscal sense. No technician has been hired yet for the ultrasound machine or the IVIS.
- Edmund Lattime reported that the IVIS was found to be broken, and the process is underway to determine if it can be serviced. There is no record of who last used the machine, and it seems that someone broke it and did not report the equipment issue.
- The ultrasound, IVIS, and PET/CT are rigorous machines and easy to use. It would be possible to make a per diem arrangement with one of the technicians who works under Edward Yurkow. Alternatively, this animal imaging facility could be rolled under Yurkow's facility at Rutgers Office of Research and Economic Development (ORED).
- Before such decisions are made, there should be increased use of the CT (use has been inhibited due to its first being broken, and then not having an operator). The PET has not been serviced yet due to lack of a necessary isotope. The PET also needs a new circuit board before it can be used, which is quite expensive.
- It will be necessary to find out how expensive the circuit board repair will be, since the cancer institute needs to know whether the machine can be fixed, prior to a researcher having need of it.
- It will also be necessary to notify researchers that this technology is available again. Ideally, former users can be re-engaged, and there might be some new users engaged too.
- An issue will be that experiments can only be done on mice housed at Rutgers Cancer Institute. Researchers could send mice to be used, and then the mice would either be euthanized or remain at the cancer institute's vivarium.
- Another issue is that any researcher who wants to do animal imaging must include it in their own IACUC protocol. They cannot do so using someone else's protocol. This process will be time-consuming, due to how IACUC reviews take a long time. There have been no improvements in the IACUC review process since the meeting in July 2019 with David Kimball and Jeetendra Eswaraka that Eileen White for the Basic Research scientists to discuss the challenges that they have faced with IACUC.

3. Proposal to purchase state-of-the-art Multi-Parameter FACS Cell Sorter (Berger)
 - In order to make a case for a SIG to cover this purchase, this new Cell Sorter must have a scientific capacity not currently available at the cancer institute. It will not be enough to state that this device is faster with better recovery.
 - The cancer institute's current Cell Sorter works. However, only Arthur Roberts can operate it. The device can also take a while to set up.
 - The cost of the Multi-Parameter FACS Cell Sorter is approximately \$400,000.
 - The Immune Monitoring Core's new Cytex Aurora device allows for more colors. Cytex is expected to soon introduce a new Cell Sorter that uses the same technological platform as the Aurora.
 - Edmund Lattime reported that Derek Sant'Angelo has concerns about the compatibility of this new technology with the current equipment. Consequently, Edmund Lattime plans to ask Christina DeCoste for her perspectives on the best course of action.
 - It will be necessary to look at data of current use of the Flow Cytometry/Cell Sorting Shared Resource. The new faculty being hired, who might have need of this Shared Resource, should also be taken into consideration. If obtaining a new Cell Sorter cannot be justified by use, perhaps there could be justification through its novelty.
 - The question was raised of whether this device could be purchased across Rutgers, if a SIG was not awarded for it.
 - There was also the question of whether such a purchase could be included in a new faculty member's start-up package. It was agreed that this could only be done for someone very high level.

4. Interim Director of Biospecimen Repository and Histopathology Service (Berger)
 - No interim Chair of Pathology has been named yet.
 - If Parisa Javidian is named Interim Director of the Biorepository, she will need additional support for matters such as grants.
 - Gregory Riedlinger was discussed as another potential Interim Director, but there were concerns about the amount of administrative responsibilities being overwhelming. It is important to retain him. Further, he lacks grants administration experience and is also not a senior-level faculty.
 - It was noted that Gregory Riedlinger is very knowledgeable, and looks at various types of slides (e.g. mouse) for the precision medicine initiative.
 - Gregory Riedlinger is not paid only by Rutgers Cancer Institute. If he could be relieved of his clinical responsibilities, perhaps he could devote more time to Biorepository oversight and other work.
 - It was reiterated that Gregory Riedlinger must be retained. Therefore, Parisa Javidian should serve as Interim Director of the Biorepository, while a search is conducted for someone with the academic capacity to lead. If this arrangement does not work, then the option of Gregory Riedlinger's candidacy will be revisited. It was agreed that in the meantime, he should be brought onto some committees, to see if he will be able to take on some leadership roles. It was noted that the Department of Pathology needed more faculty like Gregory Riedlinger.
 - There is the need to negotiate with the Interim Chair of Pathology about how much budget support will be given to the Biorepository staff.

5. Immune Monitoring Core (White and Lattime)
 - Philanthropic funding has been used to build this core.
 - Three different 10X sequencing machines were bought before a functional one was obtained.
 - Each of these three machines had to be tested, which resulted in lost mice and the costs of running the machine. Operating the 10X sequencing machine requires paying for reagent

packs and hits, such that the costs add up quickly. Each experiment typically costs between \$5,000 and \$10,000. The most-recently obtained 10X sequencing machine is being tested, in that half of an experiment is being done with it, and the other half is being done with a facility at Princeton University. The data and analyses from both facilities will be compared.

- The cost of doing this comparison is around \$10,000. If such services are not subsidized, none of the researchers will utilize them. \$200,000 has been allocated in the FY2020 budget to support sequencing.
- Development of this new core is still a work in progress. A process must be developed to offset the costs of using it.
- Flow Cytometry cell analysis has been an issue. Joshua Vieth is being sent to Memorial Sloan Kettering Cancer Center for a day to learn the steps of the process. The goal is to emulate how Peter Romanienko has developed the Genome Editing Core Facility.
- It is important to promote access to the Immune Monitoring Core. A training should be arranged on use of the 10X sequencing machine and on the Tapestry Instrument for RNA/DNA Sequencing.
 - o Hossein Khiabani has been using the Tapestry Instrument and plans to purchase it. This machine is also expensive to use, due to price of reagents.
- iLabs is not intuitive for subsidizing use of Shared Resources, so a process would need to be devised on how to do so using this platform.
 - o It was suggested that RFAs just be used to subsidize use instead.

Next Meeting

Thursday, January 23, 2020 (4:00 pm to 5:00 pm, Director's Boardroom)