

University of Pittsburgh Cancer Institute Shared Resources Program

Overview and Guidelines for Shared Resources

January 27, 2015

BACKGROUND

The University of Pittsburgh Cancer Institute (UPCI) maintains a robust Shared Resources Program that makes research tools and technologies available to all UPCI investigators. Thirteen Shared Resources are available at UPCI. Of these, four are UPCI-managed and supported to facilitate the research activities of UPCI investigators. In addition, UPCI provides financial support to five University of Pittsburgh-managed resources, and four resources are jointly managed by UPCI and the University of Pittsburgh (see list at the end of this document).

Through its Shared Resources Program, UPCI enhances basic, translational, and clinical cancer research by providing cancer investigators with access to cutting edge, state-of-the-art, calibrated, and expensive instrumentation; cGMP-compliant laboratories for cellular product generation; extensive clinical research services, and access to faculty resource Directors and Managers who are technical experts.

FY'14 facility expenses exceeded \$10 million, and revenue to support the facilities comes from a consortium of funding that includes: investigator charge-backs and grants, the NCI Cancer Center Support Grant, and UPCI and institutional subsidy.

UPCI maintains a website (<http://www.upci.upmc.edu/facilities.cfm>) that provides detailed information about the services, fees, protocols, and scheduling. In some cases, online sign-up using web-based scheduling software or outlook calendars is provided.

DESCRIPTION OF THE PROGRAM

Each shared resource supported by the UPCI Shared Resources Program is directed by a faculty scientist, expert in the use of the technology, who also provides consultation services to UPCI investigators that may include experimental design and data analysis, and a senior technician lab manager responsible for day-to-day operations. The Associate Director for Research Administration provides oversight for the UPCI Shared Resources Program.

In the 2009 competing renewal, UPCI made the decision to integrate related shared resources, and this led to the formation of the Cancer Biomarkers Facility (genomics and proteomics technologies); the Cytometry Facility (individual cell sorting and high content screening); Immune Monitoring and Cellular Products Laboratory (cellular therapy production and post-therapy patient monitoring); and *In Vivo* Imaging Facility (all pre-clinical (small animal) imaging and clinical (human) imaging). For the 2014 competing renewal, the decision was made to disaggregate the Cancer Biomarkers Facility into two independent shared resources, the Cancer Genomics Facility and the Cancer Proteomics Facility.

Each shared resource has an advisory committee that includes users, other facility Directors, and at least one UPCI Associate Director assigned to the resource. *Ex officio* members include: the Facility Director, the Associate Director for Research Administration, and the UPCI

accountant/analyst for the Shared Resources Program. Advisory committees are required to meet at least once a year to discuss core operations, services, usage, budgets, user survey results, and future plans. The Chair of the committee, who is not a member of the shared resource, is responsible for taking minutes and preparing a final summary for the archive. The committee also reviews annual benchmarks for the shared resource Director and monitors progress in reaching these goals.

The Associate Director for Research Administration coordinates an annual user survey review and disseminates the feedback to the resource Director and to the committee members at annual committee meetings. As requested, shared resource Directors may be asked to provide a 3-year plan that includes: a review of instrumentation, services and fees; a SWOT analysis (strengths, weaknesses, opportunities, and threats); a vision for the resource that includes concrete one- and three-year goals and objectives; new equipment/space needs with a funding plan; and a one page 3-year business plan.

As part of its strategic investments, UPCI is committed to providing access to new technologies identified by investigators and senior leadership that will enhance cancer research. In September 2012, UPCI assigned UPCI Associate Directors/Deputy Director and the UPCI Executive Leadership team the responsibility of providing oversight for all shared resources. This group advises the UPCI Director and Associate Director for Research Administration on a number of issues related to shared resource operations, policy, and priority needs. They identify and prioritize new services that are needed, review existing resources and identify those that no longer serve the needs of UPCI investigators, and recommend investments in new cutting-edge instrumentation for existing facilities that will improve investigator productivity.

Requests for resources to purchase new instrumentation for existing shared resources require that the Facility Director and Facility Manager document scientific need, and prepare a sound business plan in collaboration with the Associate Director for Research Administration and the UPCI Fiscal Office. Purchase decisions are made by the UPCI Director following documentation of need, recommendation by UPCI Executive Leadership members, and review by the UPCI Chief Financial Officer. This multi-level review ensures that proposed investments in existing facilities will enhance the institutional research mission and use UPCI's financial resources wisely.

The operations of all Shared Resources Program facilities are reviewed annually by their Advisory Committees, the Associate Director for Research Administration, and the UPCI Executive Committee. Corrective action plans will be developed for poorly functioning shared resources following their annual reviews. A semi-annual report of progress, enacting the corrective action plan, will be submitted for review to the UPCI Executive Leadership Committee by the Resource Director. Shared resources will be reviewed by both internal and external reviewers every three years to determine if continued support is merited. If a shared resource no longer serves the UPCI scientific community, it will be closed. This level of accountability is designed to ensure that UPCI shared resources remain cutting edge, support UPCI investigator's research needs, and reflect UPCI's priority to make sound investments that move cancer research forward.

CCSG Competing Renewal 2014/2015 Shared Resources

UPCI Managed Shared Resources

1. Biostatistics Facility
2. Cancer Pharmacokinetics and Pharmacodynamics Facility
3. Cytometry Facility (Flow)
4. Immune Monitoring and Cellular Products Laboratory (including clinical grade vectors for cell therapy and Immuno-Transplantation Center)

Jointly Managed (UPCI/University of Pittsburgh)

5. Cancer Genomics Facility (Next Gen Sequencing; Arrays)
6. Cancer Proteomics Facility (Luminex; Mass Spec)
7. Cell and Tissue Imaging Facility
8. *In Vivo* Imaging Facility (Preclinical MRI, Optical (UPCI); Preclinical PET/CT and Clinical MRI and PET/CT (University of Pittsburgh))

University of Pittsburgh Managed-UPCI Supported Shared Resources

9. Animal Facility
10. Cancer Bioinformatics Services
11. Chemical Biology Facility
12. Investigational Drug Services
13. Tissue and Research Pathology Services