

**Second Report from the University of Delaware Task Force on Core Facilities  
May 24, 2012 (updated with names July 2012)**

**Summary**

This second report of the Task Force on Core Facilities (committee members listed at end of this report) covers the period of September 2011 – May 2012. During this time, CFTF had multiple in-person meetings focused on i) surveying the faculty experiences with the Life Sciences Core Facilities at UD; ii) studying selected Core Facilities; iii) establishing salient characteristics of successful core facilities on campus; iv) beginning to discuss the implementation plans for the development of University-wide policies on Core Facilities. The outcome of this work is i) more comprehensive understanding of the current infrastructure on campus; ii) realization that the existing core facilities have diverse missions, necessitating diverse operating models; iii) refinement of the definition of a core facility. The CFTF will next consider a UD framework for guidelines and policies related to Core Facilities.

***Specific activities/findings***

Fall Semester: We launched a survey of selected Core Facilities at UD. The survey focused only on faculty experiences using Life Science Core Facilities (i.e. molecular/cellular life science) because these types of core facilities are common among institutions, PIs normally expect to pay a fee to access the core facility, and there is significant federal interest in and guidance related to such cores. The results of the survey are posted at: <http://www.dbi.udel.edu/coreFacilityTF/Report/>. We note that the mandate of the CFTF is broader than life science cores.

Spring Semester: We had nine in-person meetings. We began by discussing some of the key issues related to core facilities, including i) core facility mission; ii) user base; iii) physical and personnel infrastructure; iv) reporting structure; v) financial structure. We felt that we needed more faculty input into the process and expanded the group by adding four more members. We realized that there is a diversity of operating models amongst the current core facilities on campus, and to understand better the existing cores we studied several representative facilities. These facilities are: NMR facility (Department of Chemistry and Biochemistry, College of Arts and Sciences), Keck Imaging Facility (College of Engineering), and ResCore (Delaware Rehabilitation Institute and Department of Physical Therapy). These facilities were deemed to be very successful in serving the scientific-technological, educational and outreach missions of the University community. In the course of these studies and discussions, we learned that these successful facilities have different operational models, which are determined by the needs of their respective user constituencies. It became clear that any Institution-wide framework developed by CFTF will have to provide flexibility to accommodate diverse requirements of the current and future core facilities.

As a result of these conversations, we refined the definition of a core facility to be the following:

Core Facilities:

Provide shared access to resources (e.g. specialized expertise, state of the art technology, research populations, computational infrastructure, etc.) that are often too expensive or complicated to acquire and/or maintain by individual investigators.

They may be formed by faculty working as a small consortium, or may exist at a Department, Center, Institute, or College level, and/or may support faculty and students Institution-wide.

In addition, we identified a list of characteristics of successful core facilities at UD, as well as some desirable features of cores. These are provided in Appendix 1.

We have begun to discuss possible implementation plans and will continue to meet over the summer to develop a recommended framework for core facilities.

In these initial discussions we have identified some important challenges that any institution should address:

financing and support of core facilities  
capitalization of core facilities  
support for core facility staff

## APPENDIX 1

### Characteristics of a successful core facility at UD

#### Technology or service capabilities and resource allocation

Unique capabilities are provided in state-of-the-art technologies or services and/or skills.

Facility specialty (i.e. technology, skill, etc.) is commensurate with the needs of a broad user base (rather than a single PI).

Faculty leadership is centrally involved in defining the technologies or services and/or skills needed on campus.

Transparent access is provided to the core facility based on user needs and available resources.

Each core facility may have unique issues, staffing, technology, and other needs.

#### Importance to Advancing Research and Education at UD

Core facilities enable dissemination of scientific results through publications in peer reviewed journals, books, and other printed and electronic sources.

Core facilities often enhance the quality and competitiveness of applications for external funds.

#### User base

A critical mass of multiple faculty is involved, typically from multiple units across campus (rather than a single department).

User base includes faculty, technical staff, postdocs, graduate and/or undergraduate students

User base may include other academic and research institutions (partners, regional, national, international) and/or industry.

User base of faculty is actively engaged in research activities that rely on the core facility technology/services.

One measure of engagement is external funding for research activities.

#### Staffing

Successful cores have excellent technical staff available to interact with and train faculty, students, and external users. In many cases (as appropriate to the core) this may involve a Ph.D. level scientist with relevant expertise who manages day to day operations of the core (basic budgeting, equipment oversight, training and education, management of other staff, interactions with administrative staff, etc.)

Recruiting and retaining excellent core facility staff may require basic operating budget (1 book) or CNTT type positions to provide some measure of job security and continuity as well as opportunities for continued professional development.

The number of technical staff is commensurate with the size and scope of the core.

An infrastructure of administrative staff is available to support OMB A-21 compliance, billing, HR, etc.

A faculty committee provides strategic and technical guidance to the facility staff and vice-versa.

Facility staff may report to the unit that provides the greatest financial support for the facility, the unit that has the closest related technical expertise, or other unit. The optimal reporting structure for any given facility may be different from other facilities.

### Finances

Fees should be established in a way that is compliant with OMB A-21 and that involves a calculation of the true cost of delivering the service. Fees should be set in the context of a comprehensive, realistic financial model for the facility. This principle is separate from whether or to what extent fees cover operating costs, replacement costs, amortized purchase costs, etc.

Nearly all core facilities should not be expected to fully recover operating expenses through user fees alone, so an institutional investment will be required to maintain most cores. The rationale for and sources of funding as well as the mechanism for periodic review of such arrangements will likely vary across core facilities and perhaps over time.

The user fee established for any given service should balance the need for having the facility at UD (versus elsewhere), efficient operation of the facility, a desire to recover as much of the operating expense as is reasonable, and realistic / market pricing.

New core facilities may require capital investment.

### Other

An institutional process or framework could help identify appropriate core facilities for support in the face of limiting resources.

### **Desirable Features of a core facility at UD:**

Core facilities that include ongoing informal education of PIs, students, and staff. In some instances it may be appropriate for core facility staff to directly participate in the formal educational mission of the University.

Core facilities should strive to make new knowledge and technologies available to the UD community including through protocol and technology development.

Core facility staff should offer help to PIs and students on experimental design and analysis.

## Appendix 2

### Members of the Core Facility Task Force AY2011-2012

<u>Name</u>	<u>Unit</u>
Mark Barteau	Senior Vice Provost for Research and Strategic Initiatives
Kelvin Lee, Chair	Director Delaware Biotechnology Institute
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