CORE TASK FORCE RECOMMENDATIONS

Updates for VP&S Core Facility Managers and Directors
Core Facility Task Force: Background

Convened by Dean Rustgi in Fall 2020

Purpose:
Critically evaluate the state of research Core Facilities at VP&S and identify key steps needed to strengthen these resources in the coming years.

• Advise on existing Core Facilities at CUIMC
• Make formal recommendations for new services that align emerging technologies with our research goals
• Propose a model to assess how Core Facilities will be evaluated, prioritized and supported in the future.
Core Facility Task Force: Background

Members:

- Cory Abate-Shen, Chair, Department of Molecular Pharmacology and Therapeutics
- Adolfo Ferrando, Institute for Cancer Genetics
- Moshe Kelsen, Herbert Irving Comprehensive Cancer Center
- Liza Pon, Department of Pathology and Cell Biology
- Muredach Reilly, Irving Institute for Clinical and Translational Research
- Regina Santella, Environmental Health Sciences
- Peter Sims, Department of Systems Biology
- Alexander Sobolevsky, Department of Biochemistry and Molecular Biophysics
Core Facility Task Force: Background

Input from:
• Chairs of basic science departments, centers, and institutes
• CUIMC-wide faculty survey
• Junior faculty focus group
• Core manager town hall

Presented report to Dean Rustgi
• Short- to mid-term plan created
• Long-terms plans to be established following financial model review
Task Force Findings

Recognized the importance of cores to VP&S and CUIMC

- Critical for both center and individual investigator grants
- Repositories of knowledge and practical expertise for both “routine” and cutting-edge work
- Especially important for graduate students, postdocs, new faculty
  - Training
  - Help new labs launch
- Bring expertise into new fields
- Centers of collaboration

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Task Force Findings

Found that, despite their importance, cores are not sufficiently or uniformly supported

Cores by nature are interdepartmental, but are housed in single departments
• Uneven administrative and financial burdens
• Difficult to fund the expansion of cores, purchase of new equipment, or development of new methods
• Departmental administrators are not always able to provide the specialized administrative support cores need (rate licensing, etc.)
• Staff titles and job descriptions do not give a clear indication of the role or “place” of core staff in departments, CUIMC as a whole

Administrative structure erodes the collaborative nature of core facilities
Task Force Recommendations

- Recommended a series of changes to recognize and strengthen those shared scientific resources that serve the entire VP&S community and further the VP&S mission.

- Defined these resources as “Institutional Cores,” and provided a specific set of expectations and recognition criteria.

  An Institutional Core should represent a center of scientific excellence that promotes the growth of research areas that have been deemed to be significant, and that is available to all members of the school and university community.
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• Full criteria for recognition on VP&S Research Intranet:
  https://research.ps.columbia.edu/content/operating-principles-institutional-cores

Task Force Recommendations

To be classified as an Institutional Core, the shared resource must:

1. Be a distinct, dedicated research resource that is available to all researchers in the university
   a. Budget, operations, etc. must be separate from clinical operations
   b. Facility space must be defined and independent of PI/department laboratories
   c. Must have an open-access policy that allows easy utilization by all university researchers
      i. Promote their accessibility to all university researchers (via websites, etc.)
      ii. Establish procedures to give users direct access and training to use equipment
      iii. Have documented standard operating procedures and records

2. Be run as a professional service center with appropriate leadership
   a. A faculty director who provides scientific vision for the core and is responsive to user needs
   b. A manager who oversees day-to-day operations
   c. Core staff should be professionals in their field and use their expertise to train and assist users

3. Foster innovation
   a. Help laboratories implement new techniques
   b. Incorporate the latest procedures and methodologies in their field

4. Provide added value
   a. Should not duplicate a commercial resource unless it provides that resource in a manner that is more cost-effective
   b. Should not duplicate another core at CUMC

5. Provide standardized metrics for annual evaluation by VP&S
   a. Have a documented impact on research efforts (e.g., contributing to publications, high user satisfaction)
   b. Serve a significant user base across VP&S departments

6. Be financially responsible
   a. Have a rate license and business plan approved by VP&S
   b. Utilize transparent billing practices
   c. Use ITlab to manage reservations and billing
Task Force Recommendations

As facilities that support research across VP&S, provide additional central support for recognized Institutional Cores

- **Financial**
  - Prevent cores from being a “burden” on host department
  - Foster continued improvement and innovation
  - Allow greater responsiveness to user requests and needs

- **Training and Professional Development**
  - Working in cores requires a diverse skillset; provide opportunities for appropriate training
  - Ensure core staff are recognized for their work and achievements
  - Create a career path to allow for professional growth

- **Administrative**
  - Improve culture of core administration, assist with core-specific issues

FY22 as a transition year: Begin with pilot programs, collect feedback, expand in coming years
New Financial Support Mechanisms

Proposals for Operational Support
• Space costs
• Service contracts
• Repair and replace equipment

Research & Development Support
• Funding for new protocols, methods, services
• Funding for new equipment and upgrades
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Most will require further financial modeling, evaluation before implementation
Some mechanisms will be based on competitive FOA model

Proceeding with an “Innovation Fund” as a pilot for FY22
Innovation Fund

Details to be finalized, but rapid implementation expected

• ~2 awards of ~$50,000, up to $100,000

• To foster development or implementation of new assays, protocols, or uses of instrumentation
  Ex: New differentiation protocols; workflows to support additional sample types; creating a standard pipeline to link workflows between cores; support for new instrument function…

• Can support staff salary during development, materials, etc.

• Prefer projects that could lead to new core services (if project is successful)

• Prefer protocols that could potentially serve a broad user base (i.e., even if developed with a single lab, could be generalizable in future)

• Potential to work jointly with a lab or with other cores

Formal proposals will be requested soon, evaluated by advisory committee

Would like proposals to have a big impact!
New Training and Professional Development

Training for “business” aspects of cores: Leadership, conflict resolution, financial planning

- Evaluating Northwestern course on “Leadership and Management in Core Facilities”
- Looking at options for local courses with content experts
  MSPH
  Business School
  Offices of Postdoctoral Affairs and Academic Affairs

Career Path

- Evaluating titles at other universities
- Path for growth
  - Meaningful titles
  - Promotion opportunities
  - Faculty titles when appropriate
Increased Administrative Support

- Core manager/director meetings will be held monthly
- Office hours for rate licensing and other issues

- External Users
- External Payments
  - ACH and Credit Card Payments for cores that use iLab
  - Workflows: [https://research.ps.columbia.edu/content/receiving-external-payments](https://research.ps.columbia.edu/content/receiving-external-payments)

- Rate licensing tracking
  - Improve transparency
  - Allow submitters to see where license is in review process
Increased Advocacy for Cores

- VP&S Office for Research will continue to work with cores
  Increase coordination between offices
  Working to improve iLab and other systems

Faculty advisory committee for core facilities
- Advocates for cores to the Dean
- Advise on issues, suggestions for funding
- Review of proposals
What Comes Next?

- FY22: Year of transition to “Institutional Core” model
- Time for cores to provide feedback while support mechanisms are introduced and implemented
- Process of evaluating cores to determine which current meet VP&S Institutional Core criteria
  - Office for Research will meet with these cores
    - Better sense of future plans
    - Any issues with meeting criteria
    - Any concerns from the core
    - How new initiatives may benefit the core
- Hope conversations will be a dialog
What Comes Next?

Cores should consider

- Whether Institutional Core model makes sense for them
  - Mission
  - Current user base
  - Future plans for expansion, etc.

- Proposals for Innovation Fund initiative

- Look for future emails; if you do not receive emails, let us know
  - Will make announcements about new funding and training opportunities

- Brief survey
  - Meeting time
  - Topics for training, other requests
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