

Report from Chair Committee on Academic Structure & Funding of Basic Science Research at the UVM Larner College of Medicine

July 18, 2017

Background: Successful research and a successful research enterprise are a core of and vital to the academic mission of the LCOM. Large-scale environmental changes in Medical School-based research (e.g., declines in federally funded research, declines in clinical support for research, changes in the orientation of research from individual-based to team-based and from single disciplinary to multi-disciplinary) as well as the impact of those challenges on basic science research across the LCOM have led to the charging of the Chair Committee on Academic Structure and Funding of Basic Science Research in LCOM. (Charge shown at the end of the document)

The Committee reviewed a range of information (listing in Appendix 1) and discussed key actions to strengthen basic science research across the LCOM.

From those deliberations, the following observations have emerged:

- The overarching goal has to be to recruit and retain outstanding scientists. This is a critical foundation for maintaining and expanding the success of basic science research, and ultimately all research, within the LCOM. This will enable successful and sustained competition for shifting research support.
- The challenge is to enhance national and international competitiveness, so that the LCOM is viewed as a desirable environment in which to invest research support (the best research universities will receive a disproportionate fraction of the research support, and the LCOM should be one of them).
- Improvement and enhancement of basic science research cannot be effective without recognizing the interconnected nature of all research and the organization of research across the LCOM.
- Given the current funding streams available for research support at the LCOM, it is wise to plan for improvements without the availability of significant new funds; if added funds do become available their existence will offer added opportunity.
- Organization and operation of research needs and resources should be coordinated across departments and centers with a business discipline throughout.
- There needs to be a coordinated approach across all research and research organization with support for, and investments in, departmental research, center research, cores, graduate support, and internal grants all considered as a whole.
- There needs to be a mechanism to yield more effective research strategic planning and implementation.

In moving to achieve these changes it will be important to avoid possible adverse outcomes that could be associated with the new approaches as much as possible:

- loss of departmental identity;
- loss of individual creativity and ownership of research;
- decline in the department as the RPT “home” for individual faculty; and
- new burdensome administrative expense to carry out this shared planning and management focus.

Approach: The Committee makes three major recommendations.

1. Creation and empowerment of a LCOM Research Council to be the forum for:
 - Defining and framing consistent strategic planning for research;
 - Assessing and making decisions about the best use of available resources to meet the goals defined for basic science and then all research within the LCOM;
 - Coordination of recruitments done in concert with the overall LCOM strategic plan;
 - Sharing and application of best practices to strengthen research;
 - Communication to faculty and staff about the actions undertaken by the Council.

2. In conjunction with the Dean and Senior Associate Dean for Research, definition and application of a clear set of expectations for research accountability across the LCOM, including:
 - Departments and Chairs
 - Centers
 - Faculty Members
 - Cores
 - Graduate Support
 - Internal Grant Program

3. Assessment and, if feasible and fiscally advantageous, creation of centralized administration functions for support critical to research success such as recruiting, staff hiring, preparation of proposals, etc.

LCOM Research Council:

Agreement and Implementation: The initial step to address these recommendations will be to finalize and accept a conceptual understanding of the goals, membership and operating scope of the LCOM Research Council. The Council will then have to begin work and undertake clarifying and agreeing on the range of operating details needed to implement and refine the overall concept and specific work priorities. The new group will need to be charged by the Dean.

Possible elements of a charge from the Dean for the Research Council might include:

- **Goals:**
 - Coordinated and transparent strategic planning, melding department-oriented, Center-based and LCOM-oriented goals, (likely) including:
 - Coordinate all new (and replacement) research-related recruitments;
 - Define expectations and metrics for research faculty funding and related accountability as outlined Recommendation 2 above.
 - Make recommendations to the Dean/Senior Associate Dean for Research on allocation and use of new (and/or repurposed) resources available for research support, including relevance to faculty success/impact:
 - Key program definition in relation to existing strengths in LCOM and potential growth and shifts in funding sources, including steps to increase grant and funding opportunities;
 - Utilization of space consistent with the new LCOM research space policy;
 - Shared information about research actions through LCOM (recruitments, funding sources, methods for team building, multidisciplinary approach to science, pursuit of combined initiatives etc.);
 - Focus on and use of best practices, within the LCOM and across academic medical centers;
 - Basis to improve understanding and communication about activities and decisions of the Research Council;
 - Strategic priorities to include:
 - Multidisciplinary, team-based science;
 - Integration and coordination of Department- or Center-based activities;
 - Supporting current or anticipated areas of strength both in the LCOM and across campus;
 - The immediate and initial priority is to assess and address issues related to basic science research.
- **Membership of the new Research Council**
 - The Research Council would consist of the chairs of departments within the LCOM and the Senior Associate Dean for Research. These individuals already have responsibility for research activities within their departments. Their charge, through the Research Council, would be to coordinate and streamline those efforts to create a consistent, efficient LCOM wide approach to sustain and improve research. For several issues, it will be necessary to include center directors. For this purpose, at this time, centers will be defined as those that are funded by the College or by COBRE grants.
 - The Research Council would replace the Research Leadership Committee which would be disbanded.

- **Executive and Administrative Support**
 - In order to function effectively, the Research Council will need to have assigned executive and administrative resources to assure timely access to data; policies and practices of LCOM and the University; and preparation for and follow up from regular Council meetings. Executive leadership will include the Senior Deans for Research and for Finance and Administration. The Dean's Office will assign administrative support.

- **Scope**
 - The Council will function as the advisory group to the Dean and the Senior Associate Dean for Research on matters pertaining to sustaining and strengthening research.
 - The initial focus of the work of the Council will be to prioritize and address the issues impacting basic science research.
 - As the functioning of the Council evolves, broader levels of decision making will likely be delegated to the Council, possibly including:
 - Review of and agreement on decisions to recruit new research faculty (in any track) in concert with agreed strategic goals of LCOM (Council approval could be required to initiate recruitment and execute offers.)
 - Decisions about resources assigned by the Dean as being under control of the Council – equipment purchases, use/re-use of savings and/or new funds to assist basic science research success.

- **Initial metrics for the work of the Council:**
 - Endorse and promote utilization of space consistent with new LCOM policy on research space.
 - Address definition and application of a clear set of expectations for research accountability across the LCOM (recommendation 2 above).
 - Within 6 months it will recommend metrics for accountability by research and tenure pathway faculty members for research funding and productivity.

In its work, the Committee identified a number of items that will need to be evaluated and prioritized within the context of the priorities established by the Research Council. These include:

- Fundamental questions to be considered in deciding how best to proceed with competitive recruitment and retention activity:
 - Are we competitive for the very best young scientists?
 - If not, what do we need to do?
 - Should we re-evaluate the standard approach for the recruitment of young investigators?
 - What can be learned from the experience (success and failure) of recruitments conducted over the recent (up to five years) past?

- Coordination with and inclusion of the items recommended by the parallel faculty committee charged with identifying elements to help create an optimal environment for basic science research.

- Impact/balance between PhD and MD research faculty in relation to productivity and actions when primary research support is not available.

- Succession planning for current research funding in light of dependence on older, senior investigators.
- Strengthening the pipeline of faculty development.
- Basis to initiate the culture shift needed to be successful (strong management focus, principles worked out, enforcement mechanism to assure follow through), commitment to business discipline.
- Metrics for success and linkage to AAMC research investment level as benchmark against which to judge.
- Faculty compensation levels needed to improve competitiveness for retention and recruitment.

December 12, 2016

Committee Charge:

Frame the steps needed to create better results from the funds that the LCOM now invests to support research in order to:

- *Maximize the basis for continued research success in the face of a challenging and increasingly competitive funding environment*
- *Solidify current research levels to serve as the basis for additional investment and expansion*

Recommendations can include organizational/departmental structure; funding approaches to support research and the basis for incentives to promote success. A framework for measurable outcome and/or relevant metrics to gauge progress will be critical.

A report to the Dean for his review and action in FY 2018 should be completed by May 1, 2017.

Appendix 1

Background Data reviewed and discussed by:

Strategic Planning Chair Committee on Academic Structure and Funding of Basic Science Research at the UVM Larner College of Medicine

- AAMC Study: Academic Medicine Investment in Medical Research: Technical Report
- LCOM Investment in Medical Research for FY 2013, applying methodology used in the FY 2013 AAMC Investment in Medical Research: Technical Report.
- Financial Summary: FY 2016 LCOM total expenditures of \$196.7M.
 - LCOM General Fund Revenue and Expenses, FY 2015, FY 2016, FY 2017 –totals by category
 - LCOM General Fund Departmental Distributions, FY 2015, FY 2016, FY 2017
 - Summary
 - Detail by FTARS allocation methodology, tracking change from year to year
- Research awards by department, by investigator for FY 2014, FY 2015, FY 2016.
- Faculty headcount by pathway and academic rank for FY 2014, FY 2015, FY 2016.
- Break out of faculty head count by pathway and academic rank, distributed by department for FY 2014, FY 2015, FY 2016.
- Average percent of salary for PhD, tenure track faculty by department, by academic rank for FY 2014, FY 2015, FY 2016.;
 - tenured faculty funding liability by department for FY 2017.
- UVMMC and UVMMG annual support of the LCOM, FY 2017
- 2nd Quarter General Fund Forecast by Departments and Centers, December, 2017
- Summary of Reserves by controlling entities/units – Current, February, 2017
- Summary LCOM Strategic Research Investments - FY 2017

Appendix 2

Strategic Planning

Chair Committee on Academic Structure & Funding of Basic Science Research at the UVM Larner College of Medicine

Greg Holmes, MD, Chair Department of Neurological Services

Gordon Jensen, MD, PhD, Senior Associate Dean for Research

Debra Leonard, MD, PhD, Chair Department of Pathology & Laboratory Medicine

Mark Nelson, PhD, Chair Department of Pharmacology

Polly Parsons, MD, Chair Department of Medicine

Bob Pierattini, MD, Chair Department of Psychiatry

Gary Stein, PhD, Chair Department of Biochemistry

Russ Tracy, PhD, Professor of Pathology & Laboratory Medicine

David Warshaw, PhD, Chair Department of Molecular Physiology & Biophysics

Susan Wallace, PhD, Chair Department of Microbiology & Molecular Genetics

Moderator: Ted Winfield