



Tomorrow's Doctors, Tomorrow's Cures<sup>®</sup>

The AAMC's Group on Research Advancement and Development (GRAND) is a professional development group for research deans that provides a national forum for action on issues critical to the research enterprise and for linking advances in research with improvements in health.

The GRAND Spring Conference in Washington, DC, is organized as a forum to examine how medical schools and teaching hospitals can develop a more stable biomedical research system and use available resources most effectively.

At a recent meeting, participants and speakers discussed their visions for a research system that is more sustainable and diversified and the steps academic institutions might take to achieve that system, including new organizational models, diversification of funding sources, and increased transparency with faculty and trainees. This pamphlet provides a summary of those strategies and observations.

#### **Additional Information**

To learn more about GRAND and the AAMC, please visit [www.aamc.org/grand](http://www.aamc.org/grand), or contact Stephen Heinig at [sheinig@aamc.org](mailto:sheinig@aamc.org) or (202) 828-0488.



## **Strategies for Sustaining the Research Enterprise: Discussions from AAMC GRAND**



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### I. Restructuring and Reorganizing

In an era of strained clinical revenue, there are often fewer discretionary resources available to support the research mission. Most institutions are engaged in efforts to assess, refocus, and reorganize funding allocation.

- Creating multidisciplinary institutes or centers to increase the ability to attract faculty who focus on research outside traditional departmental boundaries.
- Reorganizing traditional basic science departments into larger divisions with shared core facilities, enhancing collaboration.
- Redirecting research around cross-disciplinary strategic initiatives (e.g., genomics, diabetes metabolism, neuroscience, population health sciences).

### II. Making Fund Flows Transparent

Understanding how research funds are allocated can be challenging because of the organizational complexity of academic medical centers. Research leaders are insisting on transparency of budgets and financial administration to make interdependencies clear.

- Some institutions are taking further steps to help researchers become more aware of costs and to consider those costs when setting priorities and making decisions, such as in space allocation.
- Many institutions contributed to *Academic Medicine Investment in Medical Research*, a recent AAMC report that finds for every dollar in institutional resources invested, nearly two dollars in sponsored research, on average, is generated. As the report states, "The average medical school investment was an additional \$0.53 for each dollar of sponsored research received."

### III. Expanding Funding Strategies

Traditionally, the research enterprise has relied primarily on National Institutes of Health (NIH) funding. In an effort to diversify revenue streams and create a financially sustainable research enterprise, new funding sources are being considered.

- To attract external sponsorship for research, some departments are partnering with development offices to create materials that explain in lay language the exciting science that institutions support.
- To optimize the use of bridge funds, chairs and administrators are specifying clear parameters for review, guidelines for use, and expectations attached to bridge funding.
- To attach start-up funds to more formal expectations, grant proposals could be required to go through internal review before submission to increase their likelihood of being funded.
- To improve the strength of applications, some institutions make available up to \$50,000 per principal investigator (PI) to collect supplementary data, if recommended.

### IV. Managing Cores

Research cores are highly specialized units that provide technical expertise to produce cutting-edge research. They can provide great value, but also present risks, for funding and support.

- Centralizing cores under one service-unit budget account to manage costs and billing may promote more efficient use of staff.
- Operating margins can be increased by offering core services to external academic and industry partners through shared services agreements that codify how the services are to be used.

### V. Supporting Early Career Investigators

Early career investigators are the future of the research enterprise, so strategies to increase their funding success and career continuity are a critical part of institutional sustainability efforts.

- Upon receipt of a first R01, one institution makes available \$50,000/year for 2 years to allow new PIs opportunities to broaden their research.
- Formal internal mentorship programs provide resources to place young faculty in research programs with seasoned PIs.
- One institution offers bridge funding and salary support extensions for assistant professors in their fifth or sixth year if they have review scores close to the funding line.

### VI. Promoting Entrepreneurship and Commercialization

Institutions report that the advantages of establishing principled partnerships with industry and promoting tech transfer go far beyond revenue generation and greatly enhance the vitality of the research program. As such, they are developing ways to make these relationships and programs more effective.

- Allowing regional biotech companies access to core facilities to increase the potential for commercialization of research discoveries.

- Making competitive seed funding available to support early-stage technologies.
- Training faculty on business plan development, biomedical product development, regulation, and financing for small business research.

### VII. Managing Space

Allocating the right amount of physical space for different projects and groups of investigators is challenging. Institutions employ varying strategies to maximize the productivity of research space.

- Relocation of PIs to laboratory space with other investigators having similar interests creates "neighborhoods" based on research area and allows for the sharing of common equipment and infrastructure.
- A research space "czar" may be appointed to work with a committee to allocate prime and nonprime, productive or nonproductive research space.
- A research space productivity index, a formula that ties lab space to incoming research dollars and percentages of indirect costs covered, is used to benchmark space allocation.

### VIII. Promoting Team Science

A "lone-ranger" model of inquiry can be out of sync with how research is conducted in a multidisciplinary era. Team science is the future, and institutions are challenged to find new practical strategies for supporting its expansion.

- A growing number of institutions are changing promotion criteria to reflect the value of team science.
- Faculty can be encouraged to consider multi-PI interdisciplinary work as a part of the research portfolio.
- Clinicians can be surveyed for potential research questions and paired with basic scientists who have complementary skills to increase clinical and translational research.

