Graduate Education in the Biomedical Sciences Review

Dr. Doug Paulsen
Associate Dean for Graduate Studies

10/19/17
Objectives

• Purpose of GEBS Review
• Brief overview of GEBS organizational structure (staffing)
• Brief overview of external review timeline and process
• Review significant findings and recommendations from external review
• Draft priorities for GEBS Strategic Plan
Purpose of GEBS Review

• Assure the highest quality of graduate education at MSM
• Examine alignment of degree programs and research opportunities and identify actions to enhance cutting edge growth
• Anticipate the knowledge and skills needed by the leading health equity researchers of tomorrow
External Review Timeline

June 3, 2016
• GEBS Review Planning Meeting

August, 2016
• Identify external reviewers and propose review dates

October, 2016
• Review list of external reviewers; update on compilation of review materials by Dr. Paulsen

December, 2016
• Assemble review packets and finalize logistics for on-site GEBS External Review Meeting

March, 2016
• GEBS External Review Meeting, Morehouse School of Medicine

April, 2016
• GEBS External Review Report to Vice President and Executive Vice Dean for Research and Academic Administration
Graduate Education in Biomedical Sciences (GEBS) Review

• Conducted March 20-22, 2017
• Included the following degree programs:
  o PhD in Biomedical Sciences
  o MS in Biomedical Research
  o MS in Biomedical Technology
  o MS in Clinical Research
  o MS in Medical Science
  o BS/MS Neuroscience
  o Dual Degree Programs
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<tr>
<th>GEBS Review Committee</th>
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<tr>
<td><strong>Ritu Aneja</strong>, PhD Program Director at Georgia State University</td>
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<tr>
<td><strong>Nick Cianciotto</strong>, Director of the Driskell Graduate Program in the Life Sciences, Northwestern University Feinberg School of Medicine</td>
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<td><strong>Maria Fatima Lima</strong>, Dean of the School of Graduate Studies at Meharry Medical College</td>
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<td><strong>David Schneider</strong>, Associate Dean for Graduate Biomedical Sciences at the University of Alabama, Birmingham</td>
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<tr>
<td><strong>Paula Traktman</strong>, Dean, College of Graduate Studies, Medical University of South Carolina</td>
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<td><strong>Tabia Akintobi</strong>, Associate Professor in the Department of Community Health and Preventive Medicine, and Director of Evaluation and Institutional Assessment at Morehouse School of Medicine</td>
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| **Janice Herbert-Carter**, Chair and Associate Professor, Department of Medical Education at Morehouse School of Medicine.
Graduate Education in the Biomedical Sciences Review: Initial and On-Site Data Reviewed
GEBS Review Process

- 2015-16 Annual Report
- GEBS Organization and Function
- Degree Program Curriculum
- GEBS Faculty Profiles
- Research Profile
- Student Profile
- Finances
- Goals and Directions for GEBS
GEBS Review Process

- Examples of Course and Comprehensive Examination questions
- Examples of Course Syllabi for graduate programs
- Additional budget information including funding for students in graduate programs
- Group meetings with students, faculty, and program leadership
- Individual meetings with leadership and select staff members
Graduate Education in the Biomedical Sciences Review: Findings and Recommendations
GEBS Review Recommendations

Curriculum

- Define learning outcomes/competencies for all programs;
- Reduce the focus on didactic lecture; start lab rotations earlier
- Rework the structure and content of Qualifying Exams
- Define the portfolio of electives and promote the ability of students to take electives off-site (ARCHE);
- Appoint a non-faculty student counselor to gather feedback from students for ongoing process improvement;
- Add a requirement for an “external examiner” on PhD theses;
- Recruit new faculty and seek collaborative opportunities with faculty at local universities to increase the number of available mentors;
GEBS Review Recommendations

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GEBS Review Recommendations

- MSM is to be applauded for support of GEBS administration (staffing, tuition, and stipend)
- Embark on a large faculty recruitment effort;
- Encourage faculty to target a fuller range of funded opportunities;
- Encourage those faculty who are currently extramurally-funded to submit supplements for training students;
- Ensure economic viability by leveraging the potential for expanding enrollment in the MSMS and MSBT programs;
- Provide seed monies to small groups of faculty to help conceptualize new projects, obtain preliminary data and transition into new areas of research.
GEBS Review Recommendations

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GEBS Review Recommendations

- More collaboration between GEBS Program Directors, staff and faculty in recruitment of applicants;
- Ensure that program offerings match emerging student needs and demand;
- Support and coordinate campus visit efforts;
- Strategically focus recruitment efforts on programs with potential to grow in today’s economy and market;
- Analyze collected recruitment data, and use insights to guide/revise future recruitment efforts.
GEBS Review Recommendations

**Graduate Career Paths**

- *Strengthen the Office of Career Connections by providing strong administrative staff and additional professional staff to support the director;*

- *Institute a structured curriculum to expose GEBS students to alternative careers. This could continue to be offered in the Learning Communities; however, Career Connections should also have strong input.*

- *Remember though that underrepresented faculty are sorely needed nationwide.*
GEBS Review Recommendations

1. Create an independent MD/PhD dual-degree program within Morehouse School of Medicine

   - The committee does not recommend creation of an independent MD/PhD program:
     - Lack of clear curricular plans for a new program;
     - Relatively limited training capacity by extramurally-funded biomedical researchers;
     - Exceptional expense of MSTP programs;
     - A partnership with the University of Washington that could mature or expand.
GEBS Review Recommendations

2. Enhance the curriculum without increasing time to degree

• The committee recommends:
  o Get students into research labs sooner; Summer lab boot camp, earlier lab rotations;
  o Incorporate seminars, workshops, short courses, symposia and other opportunities (e.g., entrepreneurship) for independent learning;
  o Make some opportunities/courses optional, based on student needs and interests
GEBS Review Recommendations

3. **Expand the graduate student population by 20%**
   - The committee recommends:
     - **Focusing the increase on the MSMS and MSBT programs**;
     - **MSBR and PhD expansion plans will require substantial investments**

4. **Create a freestanding graduate school?**
   - **A new graduate school with the required administrative support is not warranted at this time**
   - **Reorganization of the leadership/reporting structure for GEBS may be warranted**
Graduate Education in the Biomedical Sciences Review:
*Draft* Strategic Plan Vision Imperatives and Goals
Draft Strategic Plan Vision Imperatives for the Division of Graduate Education in Biomedical Sciences

Vision Imperatives

1. A graduate faculty well-trained, institutionally supported and extramurally funded to support biomedical science and research training
2. Portfolio of graduate training programs well-designed and supported to prepare graduates to meet projected state and national needs in biomedical research, teaching, and workforce diversity
3. State-of-the-art teaching and research facilities and equipment
4. Program operations that facilitate student progress, faculty efficacy, and program success
A graduate faculty well trained, institutionally supported and extramurally funded to support biomedical science and research training

Vision
Imperative 1

- **Goal 1**: Increase the number of faculty with long-term research funding (i.e. R01 and R01-type grants)
- **Goal 2**: Increase the variety of research topics available to graduate students in fields appropriate to the MSM research enterprise and mission
- **Goal 3**: Enhance the training and experience of MSM research faculty in mentoring graduate students.
- **Goal 4**: Enhance the commitment of MSM research faculty to training the next generation of biomedical researchers and health professionals
Portfolio of graduate training programs well-designed and supported to prepare graduates to meet projected state and national needs in biomedical research, teaching, and workforce diversity

**Vision Imperative II**

- **Goal 1:** Provide a curriculum for each graduate degree program that prepares students for their prospective roles in the scientific and health professions workforce.

- **Goal 2:** Enroll students in each degree program of appropriate numbers and quality to optimize educational efficacy.

- **Goal 3:** Assure fiscal sustainability and marketability
State-of-the-art teaching and research facilities and equipment

**Vision Imperative III**

- **Goal 1**: Classrooms of appropriate number, size and with appropriate equipment and furnishings to flexibly accommodate a variety of teaching modalities
- **Goal 2**: Graduate student access to research and teaching laboratories well-equipped to teach and conduct state-of-the-art biomedical research
- **Goal 3**: Incorporation of appropriate online and digital learning technologies to enhance the delivery of quality education.
- **Goal 4**: Wi-Fi-supported desk space near respective research labs for research students to land and work when not carrying out experiments.
Program operations that facilitate student progress, faculty efficacy, and program success

Goal 1: Well-designed, staffed, and executed applicant recruitment plan for each degree program

Goal 2: Consistent admissions-committee structures, processes, and oversight across all GEBS degree programs

Goal 3: Effective and efficient curriculum management

Goal 4: Effective and efficient budget planning and management across all GEBS degree programs.
Research Retreat Activity

BREAKOUT GROUPS

- **Group 1: Envision the Future Researcher in Biomedical Sciences:** As related to Health Equity
- **Group 2: Enhance Student Pipeline and Recruitment:** Recommended characteristics and approaches to recruiting
- **Group 3: Expand Faculty Recruitment and Retention:** Recommended disciplines and approaches to recruitment and retention
- **Group 4: Interlink Curricular and Extracurricular Innovations to Support Career Connections:** Recommended curricular and extracurricular innovations to support career success