

ABSTRACT: 2014 ELAM Institutional Action Project Poster Symposium

Research Development Program for Clinical and Basic Scientists

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Background, Challenge or Opportunity: The challenge is to increase extramural funding, particularly for early stage clinical and basic science investigators, at the University of Mississippi Medical Center (UMC). We plan to accomplish this by providing support and training in how to perform research, especially clinical and population research, and how to write fundable national and foundation grants.

Purpose/Objectives: To develop a supportive training and mentoring program to assist faculty in performing research and obtaining grant support.

Approach: The University of Mississippi Medical Center (UMC) has a longstanding history of strong cardiovascular research. The Physiology and Biophysics Department was the home of Arthur Guyton and one of the longest running NIH Program Project Grants (PPG) continuously funded since the 1960's. In part as a result of this strong history, UMC became the home of the NIH-funded Jackson Heart Study (JHS), the only "Framingham"-type observational study in African Americans. Mississippi also has the dubious honor to have the highest rates of obesity, metabolic syndrome, type II diabetes, cardiovascular disease, renal disease, pre-eclampsia and small for gestational age babies in the US, thus making UMC and our population a laboratory waiting to be studied! However, few clinical investigators here at UMC have taken advantage of the opportunities to perform clinical and population research with the exception of a few pockets. With these deficits in mind, we have begun a series of projects to improve the potential for increasing extramural funding at UMC, with a major focus on improving funding for clinical and population studies. My IAP focused on three areas: 1) Developing a mentoring program for junior investigators, both clinical and basic science faculty with one-on-one meetings to help faculty with basics such as time management, career goals, logical thinking, grant writing skills for their research projects. 2) Revamping the existing Institutional Research Support Program (IRSP) that provides modest funding for seed grants, preliminary data collection, and new ideas, using NIH sections and NIH Review scoring criteria and reviewers are requested to provide constructive criticism for the applicant. Junior faculty are encouraged to sit in on the review process to provide experience into the grant review process. 3) Grant Mentoring Program made up of established investigators who have current national funding and have recently sat on study sections for national panels or foundations to provide constructive criticism for the applicant on designing a testable hypotheses, supportive preliminary data, writing style, make recommendations regarding additional preliminary data needed.

Outcomes and Evaluation Strategy: Acceptable outcomes for the three projects would be: 1) Mentoring program for junior investigators: Mentee would provide a 5 year plan for career goals, develop a research plan, obtain preliminary data, and submit a grant proposal within two years. 2) IRSP: Track funding of IRSP awardees and those who obtain national funding. 3) Grant Mentoring Program: Successful grant submission and national/foundation funding for mentees.

Research Development Program for Clinical and Basic Scientists

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Collaborators: LouAnn Woodward, M.D., Richard Summers, M.D.
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Office of Research
and

Women's Health Research Center
"Studying women's health across their lifespan"

Challenge

The challenge is to increase extramural funding, particularly for early stage clinical or basic science investigators, at the University of Mississippi Medical Center (UMC). We plan to accomplish this by providing support and training in how to perform research, especially clinical and population research, and how to write fundable national and foundation grants.

Objective

To develop a supportive training and mentoring program to assist faculty in performing research and obtaining grant support.

Methods

Found Pilots:

1. Grant Writing Training Programs:

How to write K awards – Bettina Beech, Dr PH
Grant Writing Workshops – Richard Summers, MD

2. **Master of Science in Clinical Investigation** –
Joey P. Granger, Ph.D., Dean School of Graduate
Studies

3. Incentives for clinical department chairs:

--Funds for protected time for junior faculty.

4. **Assistance for clinical research programs:** --
Nurse coordinators to assist with clinical projects.

--Upgrade the IRB: Assoc for Accreditation of Human
Research Protection Program (AARP).

--Obtain computer database programs to perform
analyses

5. **Other clinical research programs:** MIND, JHS,
ARIC

IAP:

1. Mentoring program for junior faculty.

2. Revamp the Institutional Research Support Program (IRSP).

3. Grant Mentoring Program.

Approach/Outcomes/Evaluation Strategy

Background: University of Mississippi Medical Center (UMC) has a long standing history of strong cardiovascular research. The Physiology and Biophysics Department was the home of **Arthur C. Guyton** and one of the **longest running NIH Program Project Grants (PPG) continuously funded since the 1960's**. I have been a Project Principal Investigator on this PPG since 2000. As such, UMC has put into place the necessary support, regulatory and compliance offices to perform this type of, mainly animal, research. In part as a result of this strong history, UMC became the home of the NIH-funded **Jackson Heart Study** (JHS) the only "Framingham"-type observational study in African Americans. Mississippi has the dubious honor to have the highest rates of obesity, metabolic syndrome, type II diabetes, cardiovascular disease, renal disease, pre-eclampsia and small for gestational age babies in the US, thus making UMC and our population a laboratory waiting to be studied! However, few clinical investigators here at UMC have taken advantage of the opportunities to perform clinical and population research with the exception of a few pockets. In collaboration with **Richard Summers**, the recently named Associate Vice Chancellor for Research, himself a mentee of Dr. Guyton, we have begun a series of projects to improve the potential for increasing extramural funding at UMC, with a major focus on improving funding for clinical and population studies.

My IAP focused on three areas:

1. Developing a mentoring program for junior investigators, both clinical and basic science faculty.

--One-on-one meetings to help faculty with basics such as time management, career goals, logical thinking, grant writing skills for their research projects.

Acceptable outcomes: Mentee would provide a 5 year plan for career goals, develop a research plan, obtain preliminary data, and submit a grant proposal within two years.

2. Revamping the existing IRSP program.

--Provides modest funding for seed grants, preliminary data collection, and new ideas

--Use NIH type sections to familiarize faculty with NIH guidelines

--Review process uses NIH 1-9 scoring and reviewers are requested to provide constructive criticism for the applicant

--Junior faculty are encouraged to sit in on the review process-- invaluable experience to see grant review panel dynamics, what a review committee perceives as being important in a submitted grant proposal.

Acceptable outcomes: Track funding of IRSP awardees and those who obtain national funding.

3. Grant Mentoring Program.

--Established investigators who have current national funding and have recently sat on study sections for national panels or foundations.

--Mentee provides a specific aims page, a list of questions to be investigated and any preliminary data

--The Committee evaluates focusing on testable hypotheses, supportive preliminary data, writing style, make recommendations regarding additional preliminary data needed.

--Full proposal is reviewed and approved by Committee

Acceptable outcomes: Successful grant submission and increased national/foundation funding for mentees.

Discussion

Interpretation of results:

1. **New clinical mentees:** Three mentees in various stages of their careers and research experience.

2. **IRSP program:** Had training sessions, 24 grants submitted Feb, review process will occur March 27, 2014.

3. **Grant mentoring program:** Ongoing.

Description of impact: If our efforts are successful, we hope to increase national/foundation research funding, especially in clinical and population studies, by 200% in the next 5 years.

Summary

In this IAP, we have developed several strategies, both with found pilots and with new ideas, to increase the level of extramural funding by investigators here at UMC. We anticipate if the program is successful to have an increase in extramural funding, especially clinical and population funding, of 200% in the next 5 years.

Next Steps

To continue to mentor junior faculty in research and grant writing skills.

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