2010 Medical Student Summer Research Orientation
518A James Cancer Hospital
June 24, 2010: 1:00pm – 2:00pm
June 25, 2010: 3:00pm – 4:00pm

AGENDA

Welcome, Introduction, & Medical Student Research Goals
Ginny L. Bumgardner, MD, PhD
Associate Dean, Research Education

Office of Research Education
Kelly Dillon MA
COM Research Education Assistant

Mentor/Mentee Expectations & Lab Safety
Norton Neff PhD
Director, Medical Student Research

Scholarship Requirements
Kelly Dillon MA
Program Coordinator

What’s Next & Advanced Research Opportunities
Jeff Mason, Pelotonia Program Manager
Kevin Horn, Past Landacre President
Richard Price, Chair, 2010 Research Day Committee
Rebecca Browning, HHMI medical student fellow
CCTS 1 year medical student research

Questions?

MATERIALS

Medical Student Research Contact Numbers
Medical Student Research Requirements
Medical Student Research Productivity Report
Medical Student Research Experience Evaluation Form
Research Advisor Evaluation Form

At the conclusion of this orientation you should understand:

- the role of research education and training in physician training and career;
- COM expectations for the summer research experience for both the student and the mentor (we should provide and discuss the progress report which needs to reflect these expectations and desirable outcomes);
- the student's responsibility for understanding and following lab safety procedures in the laboratory;
- who (and when) to contact for any problems arising relevant to the research experience;
- information about the opportunity to pursue an additional year of research between Med 2 and Med 3 funded or between Med 3 and Med 4 through a competitive process for a limited number of students.
- Awareness of upcoming Research Education sponsored information session on extramural Howard Hughes Medical Institute Medical Student Fellowships and Sarnoff Fellowships
Medical Student Research Contact Information

General Information: Medical Student Research Website:
http://medicine.osu.edu/research/medical_students/Pages/index.aspx

General E-Mail for Research Education: research.education@osumc.edu

Ginny L. Bumgardner MD PhD
Associate Dean for Research Education
ginny.bumgardner@osumc.edu

Norton Neff PhD
Director, Medical Student Research
neff.2@osu.edu
614.688.3887
5067 Graves Hall

Kelly Dillon MA
Research Education Assistant
kelly.dillon@osumc.edu
614.292.2683
1170 Graves Hall

Elaine Wakely
Research Education Program Director
elaine.wakely@osumc.edu

Who should I contact?

1. For research project, laboratory/building access, lab safety questions, lab training (e.g., IRB, design, adjusting timelines or hypotheses): ask your mentor, lab manager, department administrator.

2. For scholarship requirement questions (e.g., extension requests, final report, Research Day abstracts, transfer of funds): Kelly Dillon

3. For conflict resolution, communication strategies (e.g., trouble with lab environment, mentor/mentee expectations, ): Dr. Neff, Dr. Bumgardner
2010 Medical Student Research Scholarship Requirements

The following requirements of the 2010 Medical Student Research Scholarship were outlined in the application submitted for funding. If you, or your mentor, have any questions or concerns with any of these requirements, please contact Kelly Dillon, Program Coordinator, at research.education@osumc.edu or 614.292.2683.

1. Attendance at 2010 Medical Student Research Orientation
   a. Attend at least one of the scheduled events
   b. Only preapproved absences with a note from mentor will be rescheduled
   c. Completed evaluation form and electronic registration will be your proof of attendance

2. IRB/ILACUC Protocols
   a. Note from mentor that research project is exempt from IRB/ILACUC, or;
   b. Cover letter of amendment submitted to IRB adding student to existing protocols
   c. Copy of IRB approval of submitted amendment

3. Final Research Report: A report of research activity is due 10 business days at the termination of funding. The format is to follow a research report in a peer-reviewed journal. Not all research produces the anticipated outcome. If your research gave unexpected results, report the outcome and suggest how the research might be restructured in the future to produce meaningful results. All recipients of research funding are required to submit a report regardless of the outcome of the studies.
   a. Abstract: A brief description of background, methods, results and conclusions (no more than 250 words)
   b. Introduction: Brief history of topic area with importance of the research project selected. State the hypothesis tested. Important references should be cited.
   c. Methods: Brief description of the methods including statistical methods
   d. Discussion and Conclusions: Fully discuss the results and their implications. Compare and contrast your findings with the literature. Suggest the next series of studies.
   e. References: Full citations are required including all authors, title, journal, volume, and year.

4. Presentation of Poster at 10th Annual OSUMC Trainee Research Day
   a. Students that receive funding are required to present a poster at OSUMC Research Day, Thursday, April 7th, 2011. The information in your research report can serve as the source material for your poster.
   b. Call for abstracts is typically in early January. Keep your eye out for calls for abstracts, mark the date on your calendars NOW.

5. Evaluation of Research Experience: Both you and your mentor will separately be requested to evaluate the research experience. From this evaluation Research Education and the Medical Student Research Program want to learn more about the benefits and challenges for medical students conducting summer research projects. We also welcome your ideas and suggestions to maximize the value of the experience.

6. Research Productivity Report: Upon submission of your final report, this productivity report is necessary to capture all collaboration, publications, presentations, and future plans regarding the proposed and funded research.
Medical Student Research Productivity Report

List all student research presentations related to the project

List all student publications (published, in press or submitted) related to the project (authors, title, journal, vol, year, pages)

Medical Student Plans to continue research project or pursue new research opportunities if applicable. (1 paragraph)

Are you interested in continuing your research project by taking a funded leave of absence (LOA) to continue this work?

Yes _____ ; No _____
**MEDICAL STUDENT RESEARCH EXPERIENCE EVALUATION FORM**

Please rate the following experiences during your period of research.

1. **Fulfillment of research experience expectations**
   - 1: Outstanding
   - 2: Very Good
   - 3: Good
   - 4: Average
   - 5: Needs Improvement

2. **Research mentoring experience**
   - 1: Outstanding
   - 2: Very Good
   - 3: Good
   - 4: Average
   - 5: Needs Improvement

3. **Exposure to diverse research personnel**
   - 1: Outstanding
   - 2: Very Good
   - 3: Good
   - 4: Average
   - 5: Needs Improvement

4. **Research education lab environment**
   - 1: Outstanding
   - 2: Very Good
   - 3: Good
   - 4: Average
   - 5: Needs Improvement

5. **Research productivity**
   - 1: Outstanding
   - 2: Very Good
   - 3: Good
   - 4: Average
   - 5: Needs Improvement

6. **Opportunity to analyze and present research results**
   - 1: Outstanding
   - 2: Very Good
   - 3: Good
   - 4: Average
   - 5: Needs Improvement

7. **Stimulation of critical thinking**
   - 1: Outstanding
   - 2: Very Good
   - 3: Good
   - 4: Average
   - 5: Needs Improvement

STUDENT:

MENTOR:

Please comment (use next page if necessary) on your experience in the lab, with your mentor, and subject area:
MENTOR EVALUATION FORM OF MEDICAL STUDENT RESEARCHER

Please rate the quality of your medical student research training experience.

1. **Fulfillment of advisee research experience expectations.**
   - Outstanding
   - Very Good
   - Good
   - Average
   - Needs Improvement

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2. **Research advisee work ethic**
   - Outstanding
   - Very Good
   - Good
   - Average
   - Needs Improvement

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3. **Responsiveness of research advisee to advisor or lab supervisor direction**
   - Outstanding
   - Very Good
   - Good
   - Average
   - Needs Improvement

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4. **Research advisee participation and contribution to laboratory team effort**
   - Outstanding
   - Very Good
   - Good
   - Average
   - Needs Improvement

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5. **Advisee research experimental skills & productivity**
   - Outstanding
   - Very Good
   - Good
   - Average
   - Needs Improvement

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6. **Advisee skills in analyzing data**
   - Outstanding
   - Very Good
   - Good
   - Average
   - Needs Improvement

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7. **Advisee skills in presenting data verbally**
   - Outstanding
   - Very Good
   - Good
   - Average
   - Needs Improvement

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8. **Advisee skills in presenting data in written form**
   - Outstanding
   - Very Good
   - Good
   - Average
   - Needs Improvement

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9. **Advisee skills in presenting data in graphic form**
   - Outstanding
   - Very Good
   - Good
   - Average
   - Needs Improvement

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10. **Advisee mastery of critical thinking skills**
    - Outstanding
    - Very Good
    - Good
    - Average
    - Needs Improvement

    | 1 | 2 | 3 | 4 | 5 |
    |---|---|---|---|---|
    |   |   |   |   | Needs Improvement |

11. **Advisee passion for research**
    - Outstanding
    - Very Good
    - Good
    - Average
    - Needs Improvement

    | 1 | 2 | 3 | 4 | 5 |
    |---|---|---|---|---|
    |   |   |   |   | Needs Improvement |