

Landacre Research Honor Society



Medical Student Research Guide

Research Trainees

Medical Student Research Program



THE OHIO STATE UNIVERSITY
College of Medicine



Dear Future Physician,

Congratulations on choosing to explore the great research opportunities available during your medical school career! We hope that this guide will aid you during all phases of your research experience. Please let us know if you have any questions or suggestions, and enjoy!

Landacre Honor Society Executive Board

How to Find a Research Mentor

For the Novice Researcher

- **Think about your current research skills and potential physician career paths.**
Are you motivated to discover solutions to problems in basic and clinical science which will lead to progress in medicine? Are you interested in an academic career at a research university like OSU? Did you know that success in academics requires success in performing and publishing peer-reviewed research?
- **Think about your interests.**
Do you enjoy the basic sciences and want to learn more about bench research? Are you interested in performing research in a clinical setting? Remember that there are many research projects available in thousands of areas.
- **Don't be intimidated.**
Didn't do research in undergrad? Don't know what a Western blot or t-test are? Don't worry! Many research mentors are looking for hardworking, engaged students who are willing to learn. They will be happy to teach you what you need to know. However, don't sell yourself short. You still have desirable skills that are useful in any field.

For All Students

- **Do your homework!**
It's up to you to find those faculty members who are doing research on topics which interest you. But, don't despair! There are many resources available to help you!
 - ***Trying to find a research mentor in a specific area?***
Try the OneSource Departmental listings.
 - ***Want to know research mentors who previously worked with medical students?***
The Medical Student Research section of the Research Trainee portion of the OSUCOM website has lists of medical student research mentors and the titles of their projects from previous years. Faculty investigators interested in mentoring medical students in research have been invited to submit descriptions of their research, which are posted at the MDSR Current Research Opportunities website.
 - ***Don't forget Nationwide Children's Hospital!***
There are many labs in the Research Institute at Nationwide doing research relevant to many diseases and patient populations, not just pediatrics.
- **Be persistent...but not too persistent!**
When setting your research timeline, remember that it may take longer than expected to both contact and set up a meeting with your desired research mentor. Research mentors are very busy people who have many responsibilities.
 - ***How should I contact a research mentor?***
Most research mentors prefer to be contacted through email. Along with your interest in being involved in their research, you should also include a summary of your research experience. We suggest using the NIH Biosketch at the end of this document.
 - ***What if I can't get in touch with a research mentor?***
Research mentors receive hundreds of emails a day. Some faculty members may not respond immediately to email or may prefer phone calls. Send follow up emails, and check the lab or departmental websites for lab managers, post-docs, or other faculty member collaborators to contact.
 - ***What if I STILL can't get in touch with a research mentor?***

If you have tried all of the above methods and cannot get in touch with a research mentor, contact Bianca McArrell, Medical Student Research Program Manager, at bianca.mcarrell@osumc.edu.

- ***What if a research mentor says no?***
Again, don't despair. There are many more fish/researchers in the sea/at OSUCOM. If possible, ask the research mentor for suggestions of other research mentors who would be interested in taking on a medical student researcher.
- **Before you meet with a potential research mentor...**
 - ***Think about what you want and how much time you can dedicate.***
Are you looking for a part-time research experience during the school year, a full-time research project for the summer, or both? If you are interested in a summer research experience, would you be interested in continuing the research for a longer period of time based on the outcomes of the research? Do you need to be paid or would you be willing to work as a volunteer? Be ready to ask and/or answer these questions.
 - ***Be ready to discuss your prior research experiences and describe your research skills.***
What more would you like to learn and what skills would you like to acquire?
 - ***Know something about the research mentor's research.***
This may be obvious, but read your research mentor's "Research Interests" paragraph and check out some of their recently published papers.

How to Find Research Funding

Great! You've found a research position in a wonderful lab with a fantastic research mentor. However, they don't have any extra funding to pay a medical student, or you would like to apply for a research award so they can use your funding for a new centrifuge. Now what?

The following is just a small portion of the many research funding opportunities available for medical students. Check the [Scholarship Opportunities](#) section of the MDSR website for more information.

http://medicine.osu.edu/research_ed/medical_students/resourcesformedicalstudents/scholarships/pages/index.aspx

Many organizations that raise money for research into specific diseases, such as the American Cancer Society or the American Diabetes Association, also provide research funding.

Landacre Honor Society will be offering informational sessions later in the year on how to write effective abstracts and grant proposals and create and present posters.

How to be a Quality Lab Member

Well, you've found a great research position and some funding so your pet goldfish won't starve while you're in the lab. How can you be a quality contributor to your lab?

- **Be involved**
Learn about what research projects are going on in your lab. Ask questions, and read papers published by your lab. A little enthusiasm will go a long way and make your research experience much more enjoyable! Who knows, you might even learn something!
- **Be independent...but not too independent!**
Be prepared to work independently and set your own goals. Each member of the lab has their own responsibilities and holding your hand isn't one of them! However, don't be afraid to ask for help. If

you don't understand a concept or instructions, asking someone to explain it again is perfectly acceptable and recommended!

- **Be reliable**

Only commit to research tasks or projects that you are capable of doing. Other lab members can sometimes forget that you are a medical student who has other responsibilities outside of the lab. Don't be afraid to say no if you don't think you can commit.

- **Be respectful**

Remember, you are representing The Ohio State University College of Medicine with your words and actions. Respectful interactions with your research mentor and lab members will encourage them to work with medical students in the future! A respectful environment will also make your lab a much more enjoyable environment to work in!

STUDENT BIOGRAPHICAL SKETCH

DO NOT EXCEED FOUR PAGES.

NAME OF SCHOLARSHIP APPLICANT Brutus Buckeye	POSITION TITLE (YEAR AND PROGRAM) Med 1
OSUMC EMAIL ADDRESS brutus.buckeye@osumc.edu	

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.*)

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
The Ohio State University; Columbus, OH	B.S.	09/06 – 06/10	Biology

A. Positions and Honors

ACTIVITY/OCCUPATION	BEGINNING DATE (mm/yy)	ENDING DATE (mm/yy)	FIELD	INSTITUTION/COMPANY	SUPERVISOR/ EMPLOYER
Research Assistant	01/07	07/10	Neurology	Ohio State University	Dr. Bob Smith
Teaching Assistant	09/09	06/10	Microbiology	Ohio State University	Dr. Jane Doe

Academic and Professional Honors and Awards (financial and otherwise)

The Ohio State University

- 3.96 GPA, *summa cum laude*

- Phi Beta Kappa

American Academy of Neurology Annual Meeting, April 2010

- Invited platform and poster presentation

- “Best Abstract for Original Undergraduate Research” Award

2009 Barry M. Goldwater Scholarship recipient

B. Publications

Buckeye B and Smith BJ. “First Successful Grafting of *Aesculus glabra* and *Homo sapiens*.” *NEJM*. 4 June 2010: 468(2): 130.5.

C. Research Related Coursework and Activities

SCIENCE			OTHER		
YEAR	COURSE TITLE	GRADE	YEAR	COURSE TITLE	GRADE
2009	Neurobiology Laboratory	A	2008	Scientific Writing	A
2010	Advanced Neuroscience	A			