

Medical Student Research Newsletter

The Quarterly Newsletter of the Office of Medical Student Research at The Ohio State University College of Medicine



From the Associate Dean for Research Education

Welcome to all of the new Med 1s and welcome back to the returning medical students. I am delighted to share this inaugural newsletter for the Medical Student Research Program (MDSR) and to introduce you to our office and services.

The MDSR [website](#) will be of specific interest to you since it provides information, outlines activities and communicates research accomplishments by OSU medical students. Last year I formed a COM Faculty Advisory Council comprised of a diverse group of faculty passionate and experienced in mentoring medical students in research. These faculty provide input to COM policy vis a vis medical student research education & training and COM research scholarship application review. The members of this council and their respective departments are listed on the MDSR [website](#).

COM faculty through research mentorship and OSU medical students through engagement in research contribute to the culture of discovery and innovation at OSU medical center. Medical student participation in the Landacre Research Honor Society offers opportunities for leadership, service and peer to peer mentorship. To familiarize yourself with the mission of the Landacre Honor Society and to meet members of the Landacre Executive Board I invite you to visit their [website](#). I serve as the Faculty Advisor for Landacre and I can assure you that the newly elected Executive Board of the Landacre Honor Society has some exciting plans this year. To find out more about why OSU medical students engage in research during medical school, [read](#) some of the essays submitted as part of the Landacre Honor Society applications last year.

Together, the MDSR program and Landacre have developed a year long series of events and informational sessions designed to educate you on how to find a mentor, how to choose a research project, how

to write a research proposal, how to research grant funding opportunities for medical students, how to apply for a COM research scholarship (such as the Roessler, Barnes, Bennett scholarships or the Watts Community Research or the Patient Centered Research Ethics Scholarship) and to inform you about some outstanding extramural funding opportunities offered by the Howard Hughes Medical Institute ([HHMI](#)) and Sarnoff Foundation [Fellowships](#) for medical students interested in taking a year leave of absence to perform more in-depth research. If you are interested in taking advantage of these extramural opportunities, I encourage you to notify me and the MDSR [office](#) of your intention and to prepare your application as far in advance as possible which will permit us to assist you with preparation of a competitive application. This year in particular we are proud that not one but 2 OSU medical students (David Clever and Stanley Park) were accepted to the prestigious HHMI/NIH Cloisters [program](#). We are looking forward to inviting them to share their experiences with you in the future!

Finally as part of our annual activities, I am very excited to share with you a video prepared with the assistance of 2011 graduating OSU medical students Julianna Padavano, MD and Sara Higginson, MD. This project began when they were Med 1 students and showcases public perceptions about research and participation in clinical trials. The video also shows responses and comments by Dr. Rebecca Jackson and Dr. Bill Carson, two OSUMC clinical research leaders, to these public perceptions about involvement and participation in clinical trials.

I invite you to visit our website frequently for updated information and to check our calendar of [events](#). If you have specific questions or ideas about research opportunities and/or academic career paths and would like to discuss these with me, feel free to contact Rebecca Cantrell Rebecca.cantrell@osumc.edu to set up an appointment. Have a great year!

Sincerely,

Ginny L. Bumgardner MD PhD

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Why Research?

Research as part of the medical student training incorporates discovery through critical thinking, innovation and experimentation. Medical student researchers learn how to communicate new knowledge, how to apply discoveries to enhance patient care. Our students' participation in research gives them firsthand experience and skills in biomedical discovery, increases the depth of understanding of medicine and prepares our graduates to directly influence the future course of medicine.



Tyler Oostra, Class of 2013, submitted the following essay as part of his Landacre Honor Society application and it eloquently describes the importance of research in a medical student's education. Tyler has conducted research in Dr. Christopher Pierson's lab funded by the Samuel J. Roessler Memorial Scholarship, and has won a travel award at the 2011 OSUMC Trainee Research Day.

"Participation in research is vitally important to a meaningful career in medicine. Medicine and our understanding of the human body is a rapidly changing body of knowledge. A particular surgeon at OSU once showed me a surgical textbook from the early 1900s and commented that he would not be a very good surgeon if he only read that book, no matter how hard he studied it. Without research, medicine would never have progressed from the now antiquated ideas that book contained. Participation in research not only pushes forward our understanding of medicine by the discoveries that are made, but it also enhances our ability to understand all research by the methodologies and knowledge we learn as a result. Without an ability to understand research, a physician will become ineffective as rapidly as that textbook once did. But by participating in research, one can come to a better understanding of medicine, both now and in the future, so that as a physician you can provide the absolute best care for the patients you see today and the patients you see many years from now."

Many students expressed how important they perceived research to be in their medical education. Please visit the MDSR website to hear from your colleagues about whether research is right for you.

From the Landacre President

Welcome to our returning medical students and especially to the Class of 2015. Our goal as Landacre Honor Society Executive Officers, is to make sure that if those activities include research, you have everything you need to have an excellent experience from start to finish. Some new things this year to help you with your career are an expanded database of faculty mentors that are interested in medical student collaboration, a monster list of expected funding opportunities so you can begin thinking about your applications earlier, and an opportunity to listen to and learn from the research of your fellow students as part of a synergy between Landacre and the Surgery Consortium. Additionally, Landacre, Alpha Omega Alpha, and the Gold Humanism Honor Society invite you to attend a welcome reception on September 19th to learn more about the history of the honoraries, their function in the medical community, and the qualifications necessary to be considered for membership in each.



We are also inviting Med 1's to participate closely with the Honor Society this year by offering membership and leadership opportunities in the Landacre Honor Society Research Interest Group. One of the biggest benefits of doing research, being a part of Landacre, or being involved in any of the student organizations during your medical school years is the fellowship you experience with your classmates. I urge all of you to follow your interests and to especially take advantage of the expertise and guidance of the fantastic people that make up the classes here at OSUCOM. With that in mind, I would like to introduce you to the Landacre Executive Officers for this year, all of whom will be happy to answer questions and help you on your way to a successful and rewarding experience in research. Good luck with the beginning of the year, and I look forward to seeing all of you soon.

Benjamin Wendt, President
Eliza Beal, Vice President
Joel Palko, Secretary
Rohit Mital, Treasurer
Joseph Meyerson, Officer
Nicholas Nowacki, Officer

Casey Reed, President, Landacre Interest Group

Meet the Leadership

In 2011, the Medical Student Research Program Office invited key faculty researchers to assemble as an advisory committee. The new MDSR Faculty Advisory Committee meets twice per academic year to inform policy and participate in initiatives to enhance the quality of medical student research training experiences and outcomes. The first charge of the inaugural committee was to review the 2011 MDSR Scholarship Application review criteria, forms, applications, identify alternates to review applications, rank and advise decisions.



In the future, the MDSR FAC will help direct new initiatives, help mentor students through the funding and fellowship experience, and ultimately help research become a key component of the medical student training at OSU. The MDSR FAC spans many departments, both clinical and basic, across the OSUMC main campus and Nationwide Children's Hospital. Please help us welcome the inaugural members of the Medical Student Research Faculty Advisory Council!

- Tanios Bekaii-Saab, MD, Medical Oncology
- Mark Bloomston, MD, Surgery
- John Bolt, PhD, Anatomy
- John Christoforidis, MD, Ophthalmology
- Jonathan Davis, PhD, Physiology & Cell Biology
- Roger Dzwonczyk, PhD, Anesthesiology
- David Flanigan, MD, Surgery
- Vidu Garg, MD, Molecular Genetics and Pediatrics at NCH
- Gayle Gordillo, MD, Surgery
- Deborah Grzybowski, PhD, Ophthalmology
- Metin Gurcan, PhD, Biomedical Informatics
- Lyn Jakeman, PhD, Physiology and Cell Biology
- Brian Kaspar, PhD, Neuroscience at NCH
- Balveen Kaur, PhD, Neurosurgery
- Samantha King, PhD, Pediatrics at NCH
- Michael Knopp, PhD, Radiology, Director of the Wright Center of Innovation
- Jas Lang, PhD, Otolaryngology
- Kim McBride, MD, Genetics at NCH
- W. Scott Melvin, MD, Surgery
- Sampath Parthasarathy, PhD, Surgery and Endocrinology
- Ritu Salani, MD, Obstetrics and Gynology
- Orlando Simonetti, PhD, Cardiovascular Medicine
- Mark Wewers, MD, Pulmonary & Critical Care Medicine
- Randy Wexler, MD, Family Medicine
- Henry Wong, MD, Dermatology
- Debra Zynger, MD, Pathology

2011 MDSR Scholarship Results

The Medical Student Research Scholarship (MDSRS) Application encompasses the Samuel J. Roessler Memorial Scholarship, Barnes & Bennett Memorial Scholarship, and the Watts Mount Community Scholarship.

These awards are available to medical students of The Ohio State University College of Medicine for medical research performed under the guidance of its faculty. MDSRS procedures were revised in 2011 to ensure compliance with OSUMC Research guidelines, streamline scholarship proposal writing, and make the research experience overall more positive for both the medical student and mentor.

The MDSRS became more competitive this year and faculty mentors and judges alike agree that the quality of applications and proposed projects is significantly higher than in years past.

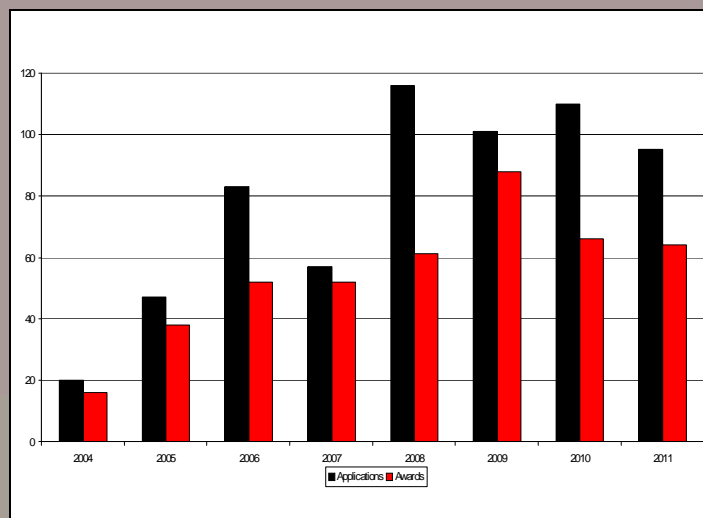


Fig 1. MDSRS Application and Award Rates 2004-2011

Upcoming Events

Visit the MDSR Events [webpage](#) for up-to-date times, locations, and materials for all events.

- Aug 10th, 9:30am, 160 Meiling, **Introduction to Medical Student Research** Presentation
- Aug 16th, 4:30-6:30p, Meiling Lobby & Basement, **Student Activity Fair** – come meet the Landacre Officers.
- Sept 19th, 6-9p, **Honorary Consortium Reception** Introduction to AOA, GHHS, and Landacre
- Sept 22nd, 12-1p, 160 Meiling, **Research Opportunities** Information Session
- Oct 17th, 5-6:30p, BRT 115, **Medical Student Research Opportunities Fair**
- Oct 25th, 12-1:30p, 160 Meiling, **Research Funding** Information Session
- Nov 15th, 12:30-1:30p, 160 Meiling, **Grant Writing** Information Session
- Dec 10th, 3pm, 1170 Graves Hall, **2012 MDSR Phase I** documents due.

2011 OSUMC Trainee Research Day – Medical Student Participation

On April 7, 2011, over 300 undergraduate, graduate, medical, postdoctoral, and resident trainees presented posters at the 10th Annual OSUMC Trainee Research Day. The Trainee Day was the second day of the 2011 Research Celebration, bookended by faculty participation events at the Center for Clinical and Translational Science (CCTS) and Nationwide Children's Hospital. Over 200 faculty and research scientists participated as judges at this three day event.

Trainees and their posters were judged by two expert faculty in their respective fields. One abstract from each trainee group was also selected by the Research Day Committee to be presented as part of the Allan Yates Trainee Speaker Series. This year, 122 Medical Students presented posters and 13 were awarded a \$500 Travel Award. M. Wesley Milks was chosen to present his abstract at the Allan Yates Trainee Speaker Series.

View all the 2011 Travel Award Winners at the Research Day [website](#).

Student Fellowship Awards

- **David Clever:** HHMI Cloisters Fellowship
- **Stanley Park:** HHMI Cloisters Fellowship
- **Monica Chappell:** Robert Woods Johnson Foundation Grant
- **Abdulfatah Issak:** The American Society of Colon and Rectal Surgeons (ASCRS)
- **Fadi Kasyouhanan:** National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
- **Myntee Ngangana:** American Society of Hematology -Minority Medical Student Award
- **Fadi Shihadeh:** 2010 Foundation of the Consortium of Multiple Sclerosis Centers (FCMSC) MS Workforce of the Future Research Scholarship
- **Kyle Beckwith:** 2011 [Pelotonia](#) Medical Student Research Fellowship.

Student Research Publications and Presentations

Elaine Binkley: "Distinct myeloid suppressor cell subsets correlate with plasma IL-6 and IL-10 and reduced interferon-alpha signaling in CD4+ T cells from patients with GI malignancy" *Cancer Immunology, Immunotherapy* (online).

Benjamin Abramowitz: Presented abstract titled "Swelling Analysis of Biomechanical Properties in the Post-LASIK Cornea" Association for Research in Vision and Ophthalmology National Conference in May 2011..

Christian Earl: Alinari L, White VL, **Earl CT**, Ryan TP, Johnston JS, Dalton JT, Ferketich AK, Lai R, Lucas DM, Porcu P, Blum KA, Byrd JC, Baiocchi RA. Combination bortezomib and rituximab treatment affects multiple survival and death pathways to promote apoptosis in mantle cell lymphoma. *MABs*. 2009 Jan-Feb;1(1):31-40.

Iahn Gonsenhausner: **Gonsenhausner I**, Abaza R, Mekhjian H, and Moffatt-Bruce SD. Developing a Multidisciplinary Robotic Surgery Quality Assessment Program. *J Health Care Qual*. In Press. 2011

Clayton Hodges: Shah NR, Mikami DJ, Cook C, Manilchuk A, **Hodges C**, Memark VR, Volckmann ET, Hall CR, Steinberg S, Needleman B, Hazey JW, Melvin WS, Narula VK. A Comparison Of Outcomes In Open Versus Laparoscopic Surgical Repair Of Recurrent Inguinal Hernias. *Surgical Endoscopy* (In Press).

Ashley Scheffer: Salma A, Lubow M, **Scheffer A**, Ammirati M. Endoscopic Orbital Roof Fenestration as an Alternative Treatment Option for Idiopathic Intracranial Hypertension: A Cadaveric Anatomical Study. *J Neuroophthalmol*. 2010 Sep 16.

Emily Wilding: Yan F, Wu X, Crawford M, Dwan W, **Wilding EE**, Gao L, Nana-Sinkam P, Villanona-Calero MA, Baiocchi RA, Otterson GA. The Search for an Optimal DNA, RNA, and Protein Detection by in situ Hybridization, Immunohistochemistry, and Solution-Based Methods. *Methods*. 2010 Dec; 52(4): 281-6