



The **Medical Student
Research Program**
The University of Arizona College of Medicine, Tucson

MEMORANDUM

May 9, 2012

TO: College of Medicine Faculty

FROM: Harris Bernstein, PhD, Chairman, Medical Student Research Committee
Marlys H. Witte, MD, Professor of Surgery and Director, Medical Student Research Program

SUBJECT: Medical Student Research Program and related High School/Undergraduate Student Research Programs

MSRP webpage: <http://www.msrp.medicine.arizona.edu/>
SEPA webpage: <http://www.ignorance.medicine.arizona.edu/>

Medical Student Research Program

Founded in 1981, the Medical Student Research Program (MSRP), funded by the National Institutes of Health (2004-2014) with administrative support from the Dean's Fund, continued and further developed a wide variety of activities during 2011-2012.

- For FY 2011-2012, 36 medical student short-term full-time research fellowships were awarded in conjunction with the *Summer Institute on Medical Ignorance Seminar Series* (SIMI) (June 6 - August 5). An additional 4 students conducted short-term research during vacation/leave periods throughout the year. Final presentations were videostreamed and can be viewed at:
<http://video.biocom.arizona.edu/video/videolibrary/CoMed/Witte/default.htm>
- Recruitment of 2012 summer research fellows began in January 2012. **43** medical students have already successfully competed for the available NIH research fellowships. Several students couldn't be accommodated because of the fund limit.
- Since the inception of the program in 1982, more than 800 medical student researchers have completed one or more fellowships through MSRP.
- Medical student research prizes/awards, publications, and research presentations at regional and national meetings.
 - As of May 2012, >463 papers, 41 chapters, and 949 abstracts have been published since 1982.
 - 4 medical students submitted abstracts and were accepted to make oral presentations at the annual Western Federation for Medical Research (WFMR) meeting January 25-28, 2012, in Carmel, CA. These included: Erik Bakken (Neuroscience I), Lauren Imbornoni (Genetics), Allysa Kehring (Neonatology), Sarah Lau (Pulmonary & Critical Care).
- The Research Distinction Track (RDT) (Surgery 800A) (approved for 6 academic credits by the Curriculum Committee in 2000): **12** seniors completed the track and graduated with Distinction Honors in Research: Greg Cheeney, Anne Floyd, Chris Geffre, Uma Goyal, Jack Hannallah, David Horner, Julie Lockwood, Mike Montague, Brandon Root, Josh Tieman, Amanda Valles Bisla, and Jason Wright. **28** students are currently enrolled in the RDT. Additional information and application forms are available in Room 7338 (temporary), AHSC, as well as on our website.
- Basic and clinical faculty who know of interested students, or who have opportunities available for medical students, undergraduate, and/or high school students, are encouraged to contact MSRP Program Coordinator Grace Wagner in the Department of Surgery (Rm. 7338 temporary) at (520) 626-6360 or e-mail grace@surgery.arizona.edu for further information.

Disadvantaged High School Student/Teacher Research Program

Founded in 1987 and 1991, respectively, the *NIH High School Student/K-12 Science Teacher Research Program*, which is integrated into the Medical Student Research Program and funded by NIH (1998-2002 and Science Education Partnership Award (SEPA) (2000-2013) for a "medical ignorance collaboratory," K-12 Virtual Clinical Research Center and Medical Ignorance Exploratorium (website: www.medicalignorance.org) to improve scientific and health literacy), offered a variety of student- and teacher-centered activities.

- For Summer 2012, 27 basic and clinical research fellowships were awarded to financially, socially, or educationally disadvantaged high school students from around the state. We are recruiting mentors in targeted areas of neuroscience and cardiovascular disease for 'these outstanding high school students. Student research fellows participate in an expanded intensive program (partially on-line) including the seminar series of the Summer Institute of Medical Ignorance, the Introduction to Pathobiology mini-course (coordinated by Drs. Ronald Weinstein and Anna Graham), and are introduced to the Medical Ignorance Exploratorium, Questionator game, and most recently the new Virtual Clinical Research Center/Questionarium). The 2012 SEPA Summer Institute on Medical Ignorance program will run from June 11 - July 27. Please contact Program Coordinator Sr Grace Wagner in the Department of Surgery at 626-6360 or grace@surgery.arizona.edu if you are interested in mentoring a high school student this summer.
- Continued short-term and long-term followup evaluation of the achievements and career paths taken by the >495 high school students and 135 K-12 teachers who have participated in the program since its inception.

Undergraduate Student Research Program

In addition, ~16 diverse undergraduate student researchers will join the summer program – particularly those who have previously graduated from SIMI. We expect to place most of these returning SIMI alumni in their prior or related research laboratory or clinic under the former or a collaborating mentor. Research emphasis will be on cardiovascular-blood-lung research interpreted broadly but this is not a requirement. These undergraduate student researchers will work for 2-3 months over the summer recess. They will be joined this year by a select group of Biomedical Engineering undergraduate students in BME Professor/Department Head Jennifer Barton's NIH-funded program along with medical students in the NIH-funded MSRP, whose research assignments have already been made.

Medical and Pre-Medical Ignoramics Curriculum

Marlys H. Witte, MD, Professor of Surgery and Director of these Student Research Programs, colleagues, and staff also organized and participated in conferences presenting a variety of local, regional, national, and international workshops, curricula, and posters, and co-authored publications highlighting the program and providing training and in-service support to K-12 teachers and education at all levels and in many disciplines.

AHSC Faculty Research Mentor Network

The Faculty Sponsor Directory, currently undergoing extensive update, contains profiles on more than 220 clinical and basic science faculty members interested in having medical and high school students and K-12 science teachers do research in their labs and/or clinics. New faculty and those who have not yet submitted their research projects/ programs for inclusion in the Directory are encouraged to do so—please call (520) 626-6118 or e-mail MSRP@email.arizona.edu for further information. The Directory is available online at: <http://www.msrp.medicine.arizona.edu/facultysponsors.htm>.

Endowed/Titled Professors among many distinguished faculty and practitioner alumni/ae (MSRP SIMI Graduates):

- Julia Indik, MD (Class of 1996) is the UA Flinn Foundation/American Heart Association Endowed Chair in Electrophysiology.
- Michael J. Joyner, MD (Class of 1987) is the Frank R. and Shari Caywood Professor of Anesthesiology at Mayo Clinic, Rochester, MN in May 2009.
- Francisco Garcia, MD (Class of 1992) is the UA Distinguished Outreach Professor of Obstetrics & Gynecology, Public Health, Clinical Pharmacy and Mexican American Studies.

Medical Student Research Committee: Chair: Harris Bernstein, PhD (Cell Biology & Anatomy), Qin, Chen (Pharmacology), Roxana Ursea, MD (Ophthalmology), Karen Weihs, MD (Psychiatry), Francisco A.R. Garcia, MD (ex officio Co-Director, MSRP) (OB/GYN), John A. Szivek, PhD (Orthopaedic Surgery)], Marlys Witte, MD (ex officio Director, MSRP) (Surgery), and Grace Wagner (MSRP Program Coordinator); and medical students Julie Lockwood ('12) and Chris Geffre ('12). The committee welcomes your comments and suggestions and extends their appreciation to those faculty members who participate in the Medical Student Research Program and related NIH-funded programs. We are committed to promoting opportunities for student research and look forward to another successful year in 2012-2013.