



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

**MEMORANDUM**

April 2, 2020

**TO:** College of Medicine Faculty

**FROM:** Kristian Doyle, PhD, Assoc. Professor, Immunobiology and Neurology,  
Chair, 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

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MSRP webpage: <http://www.msrp.medicine.arizona.edu/>  
High School Program 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 and recently renewed through 2025, with administrative support from the Dean's Fund, continued and further developed a wide variety of activities during 2019-2020.

**Summer Institute on Medical Ignorance**

- For FY 2019-2020, 38 medical student short-term full-time research fellowships were awarded most of which were integrated into the *Summer Institute on Medical Ignorance Seminar Series (SIMI)* (6/3-8/2/19). Final presentations were videostreamed and can be viewed at the UA Biocommunication streaming website.
- Recruitment of 2020 summer research fellows began in November 2019. 8 medical students have already successfully competed for summer research fellowships with an additional 4 upperclass medical students approved for full-time research fellowships not during the summer months. A queue of additional applications is pending final review.
- Since the inception of the program in 1982, 1045 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 January 2020, ~800 papers, ~50 chapters, and ~1300 abstracts have been published since 1982.
  - Five medical students were selected to make presentations at the 2020 Western Medical Research Conference (WMRC) regional meeting of the American Federation for Medical Research, Carmel, CA, January 23-25, 2020: All 5 abstracts were presented in subspecialty sessions. Eight students also made presentations at the 2019 AMA Expo, November 2019, in San Diego, CA. Unfortunately, due to the COVID-9 virus, the 2020 Midwestern SMRF was cancelled where a student had been accepted to present.

**Research Distinction Track**

- The Research Distinction Track (RDT) (Surgery 800A) (approved for 6 academic credits by the Curriculum Committee in 2000): 30 seniors completed/are completing the track and will graduate in 2020 with Distinction and Honors in Research: Alfonso Ayala, Bethany Boczar, Brennan Boyd, Beatrice Caballero, Sheridan James, Stephen Crabbe, Jenna Dobrick, Jaime Faulkner, Eric Hines, Catherine Jerman, Satnam Khalsa, Hussein Magale, Asad Mansoor, Robert Martinez, Craig Morris, James Palmer, Ryan Palsma, Mariel Piechowicz, Rombod Rahimian, Giuliana Repetti, Akshay Roy-Chaudhury, Sana Rukh, Bradley Shane, Tanwe Shende, Amisha Singh, Aida Siyahian, Chelsea Takamatsu, Shannon Zhang and Shannon Zullo. 45 COM 2021-2023 students are currently enrolled in RDT, 46 students have submitted Applications of Intent, and additional applications are pending approval. In addition, MSRP students held periodic student journal clubs and scheduled student research presentations and participated in Departmental and College Research Seminars. Information and application forms are available in Rm 4402K, AHSC, and 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 Manager, Grace Wagner at (520) 626-6360 or e-mail [grace@surgery.arizona.edu](mailto: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 multiple NIH Institutes for a wide variety of activities (website: [www.medicalignorance.org](http://www.medicalignorance.org)) to improve scientific and health literacy), offer a variety of student- and teacher-centered activities.

- For Summer 2019, 30 basic and clinical research fellowships were awarded to financially, socially, or educationally disadvantaged high school students from around Arizona. Mentors were recruited in targeted areas of neuroscience, cardiovascular, cancer, and pediatric disease for these outstanding high school students. Student research fellows participated in an expanded intensive program (partially on-line) including the seminar series of the Summer Institute of Medical Ignorance, and were introduced to the Medical Ignorance Explorarium, the Virtual Clinical Research Center/Questionnaire, and most recently, mobile access ([curiosityforall.org](http://curiosityforall.org)) – which also includes our Curiosity for All Videos. They also created videos of research topics area tools for our YouTube channel ([www.youtube.com/user/medicalignorance](http://www.youtube.com/user/medicalignorance)) (over 200,000 hits).
- The 2020 Summer Institute on Medical Ignorance program will run from June 8-July 24, 2020. 37 high school students have been accepted and assigned to College of Medicine laboratories and clinics. **We are in urgent need of a few more mentors for high school students who have been selected for our NINDS and NICHD-funded summer program – for additional information, please contact MSRP Program Manager, Grace Wagner <[grace@surgery.arizona.edu](mailto:grace@surgery.arizona.edu)>.**
- Continued short-term and long-term followup evaluation of the achievements and career paths taken by the >735 high school students and several hundred K-12 teachers who have participated for extended periods in the program since its inception and hundreds more have been trained in our workshops.

### **Undergraduate Student Research Program**

In addition to medical and high school students, 20 diverse undergraduate student researchers (predominantly students previously graduated from SIMI) joined the 2019 NHLBI, NINDS, and NICHD-supported summer program . We placed most of these returning SIMI alumni in their prior or related research laboratory or clinic under the former or a collaborating mentor. Research emphasis targeted cardiovascular-blood-lung research, with smaller numbers in the neurosciences and pediatrics. These undergraduate student researchers worked for 2-3 months over the summer recess and hundreds more have been trained in our workshops.

Applications are currently being accepted for the 2020 Undergraduate Research Program funded by NINDS, NHLBI, and NICHD grants.

### **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, invited lectures, curricula, and posters, and co-authored publications highlighting the program and providing training and in-service support to K-12 teachers and educators at all levels and in many disciplines.

### **AHSC Faculty Research Mentor Network**

The Faculty Sponsor Directory, currently undergoing extensive updates, contains profiles on more than 140 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) 626-6360 or e-mail [grace@surgery.arizona.edu](mailto:grace@surgery.arizona.edu) for further information. The Directory is available online at: <http://www.msrp.medicine.arizona.edu/facultysponsors.htm>.

Medical Student Research Committee: Chair: Kristian Doyle, PhD (Immunobiology & Neurology), Julie Armin, PhD (Family & Community Medicine), Terry Matsunaga, PhD (Medical Imaging), Ritu Pandey, PhD (Cellular/ Molecular Medicine), Ray Runyan, PhD (Cellular & Molecular Medicine), Craig Weinkauff, MD (Surgery) and Marlys Witte, MD (ex officio Director, MSRP) (Surgery), David Margolis, MD/PhD (Asst. Director, MSRP) (Orthopaedic Surgery), Grace Wagner (MSRP Program Manager), & Graceann Thompson (MSRP Program Coordinator); and medical students Giuliana Repetti ('20), Craig Morris ('20) and Rinku Skaria ('21). The committee welcomes your comments and suggestions and extends their appreciation to those faculty members who participate in the MSRP and related NIH-funded programs. We are committed to promoting opportunities for student research and look forward to another successful year in 2020-2021.