



The Medical Student Research Program

The University of Arizona College of Medicine, Tucson

MEMORANDUM

April 11, 2025

TO: College of Medicine Faculty

FROM: Torsten Falk, PhD, Professor of Neurology and Pharmacology,
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

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, with administrative support from the Dean's Fund, continued and further developed a wide variety of activities during 2024-2025. A successful competitive renewal of this NHLBI T35 program will continue funding at the same level through April 30 2030.

Summer Institute on Medical Ignorance

- For FY 2024-2025, a total of 26 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) (5/28/24-7/27/24 or earlier series) and others, particularly upperclass students, through vacation periods throughout the year. Final presentations were videostreamed and can be viewed at the UA Biocommunication streaming website.
- Recruitment of 2025 summer research fellows is currently underway with a queue of applications pending final review. Since the inception of the program in 1982, 1194 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 2025, ~850 papers, ~50 chapters, and over 1320 abstracts have been published since 1982, including an increasing number in recent years since the Research Distinction Track was initiated.

Research Distinction Track

- The Research Distinction Track (RDT) (Surgery 800A) (approved for 6 academic credits by the Curriculum Committee in 2000): 27 seniors completed/are completing the track and will graduate in 2025 with Distinction and Honors in Research:
David Ahmadian, Elisabeth Batzli, Robert Childers, Max Coffeen, Natalie Demirjian, Blake Gerken, Hamza Ghannam, Joseph Gunderson, Lacey Hart, Thien Hoang, Andrew Hostler, Nicole Kummert, Daniel Matloff, Sheyda Mezgarzedah, Noshin Nuzhat, Jacob Ref, Sean Renfree, Katherine Riordan, Elka Rubin, Jarrod Rulney, David Schaub, Sona Shahbazian Wolf, Toluwalase Talabi, Christopher Trapani, Jonathan Yasmeh, Christopher Zaki and Brandon Zhang
- 30 COM 2026-2028 students are currently enrolled in RDT, 33 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 the MSRP Program Office at (520) 626-6118 or e-mail grace@surgery.arizona.edu for further information.

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 over many years by multiple NIH Institutes for a wide variety of activities (website: www.medicalignorance.org) to improve scientific and health literacy), offer a variety of student- and teacher-centered activities.

- For Summer 2024, 13 basic and clinical research fellowships were awarded to financially, socially, or educationally disadvantaged high school students from around Arizona (one student withdrew at the last minute). 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/Questionarium, and most recently, mobile access (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) (over 200,000 hits).
- The 2025 Summer Institute on Medical Ignorance program will run from June 2-July 18, 2025. 13 high school students have been accepted and assigned to College of Medicine laboratories and clinics. We are still in need of a few more mentors for high school students who have been selected for our NINDS-funded summer program – for additional information, please contact MSRP Program Coordinator, Graceann Thompson at graceann@arizona.edu.
- Continued short-term and long-term followup evaluation of the achievements and career paths taken by the ~820 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, 8 diverse undergraduate student researchers (predominantly students previously graduated from SIMI) joined the 2024 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.

In addition, Professor M Witte is PI with administrative assistance from N. Barnett on a pilot RI-funded 5 year grant to support ~10-11 undergraduate students across the campus annually to conduct original student-initiated pilot projects generated by their own original questions and supervised by their mentor of choice. Year 3 of this program is ongoing with the latest annual Questionarium symposium having been conducted on April 28, 2025. Additional campus wide Questionarium workshops for faculty, students and staff are being scheduled throughout the coming year, funded by another 2-year pilot grant to Dr. Witte from the Senior Vice-President for Health sciences to connect the University community through their Questions in a “Wonderland” and foster collaborations and mentor-mentee relationships. And also expand their uniquely identifying KMap with a QMap.

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. The Questionarium project to foster “University of Arizona Wildcats in Wonderland” is described above.

AHSC Faculty Research Mentor Network

The Faculty Sponsor Directory 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 for further information. The Directory is available online at: <http://www.msrp.medicine.arizona.edu/facultysponsors.html>.

Medical Student Research Committee: Chair: Torsten Falk, PhD, (Neurology/Pharmacology), Josh Gaither, MD (Emergency Medicine), Keith Joiner, MD (Internal Medicine), Raymond Wong, PhD (Pharmacology), Christina Colosimo, DO (Surgery), Paulo Pires, PhD (Physiology) 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 Sean Renfree ('25) and Mac McGraw ('27). 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 2025-2026.

