



TEXAS A&M UNIVERSITY

The Office of Medical Student Research Education's Medical Scholar Research Pathway Program Nurtures Future Physician-Investigators in Academic Medicine

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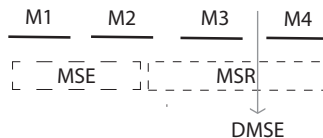


Introduction

- The Medical Scholar Research Pathway Program (MSRPP), sponsored by the Office Student Research Education (OMSRE), is a structured research program for traditional medical students. It was inaugurated during the FY 2020-2021, after a pilot year.
- MSRPP students have the opportunity to observe, practice, and acquire scholarly research skills first-hand under the guidance of engaged faculty mentors.
- Nine areas of research are offered spanning from basic science to medical humanities.
- MSRPP research deliverable opportunities include:
 - Launch talk series describing MSRPP research
 - Annual TAMU-COM Medical Research Colloquium (MRC)
 - Presentation of research at national conferences
 - Peer-review article co-authorship
 - Participation as research mentors via the PEERs program
- Three personalized pathways were designed to fit a student's residency career goals, research interests, and schedule.

MSRPP Pathways and Timeline

MSRPP Pathway Program	Medical Scholar Explorer (MSE)	Medical Scholar Researcher (MSR)	Distinguished Medical Scholar Researcher (DMSR)
# students	34	8	2

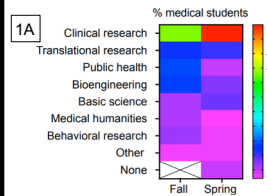


Methodology: Survey / Interview

- To assess student needs and MSRPP's practices and reach, two sets of data were collected.
 - Surveys administered to all COM-medical students were used to determine the baseline for research focus areas and long-term career goals.
 - One-on-one interviews with MSRPP's Director, documented student's research plans and her recommendations for future action steps.
- Surveys were thematically analyzed over a 4-month period in the Fall 2020 (September through December). Items such as prior medical student research experience and current interest were systematically captured to tailor students best educational research experiences according to the medical desired educational goals.

Results

Scholarly Research Focus



Long-term Career Goals

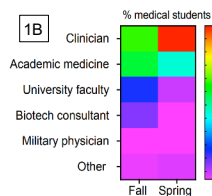
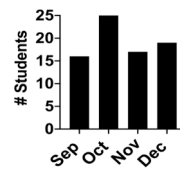


Figure 1. Heat maps show the collective answers queried in the Fall 2020 and Spring 2021 in a survey administered to all TAMU COM medical students by OMSRE. (A) The map shows a significantly strong desire for students to pursue clinical research (over 45%). (B) The map shows COM medical students' preference to become clinicians and academic medicine practicing physicians.

2A Coaching Meetings



2B 1:1 Contact Hours

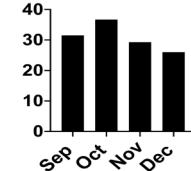
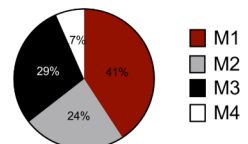


Figure 2. (A) Bar graph shows the number of students who met with the MSRPP program Director each month in one-on-one meetings. A total of 77 research advising meetings occurred during a 4-month period. (B) Bar graph displays a total of 124 contact coaching hours for students to align their research pathways with their professional career goals.

3A UME Classification



3B Clerkship Campus

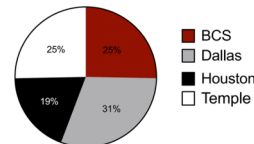


Figure 3. (A) % of MSRPP medical students that utilized the phased program categorized by class designation. Results show that there were significantly more M1 than M4 students, with relatively equal numbers of M2 and M3. (B) Chart shows the distribution of MSRPP reach across clinical campuses.

MSRPP Students Research Focus Areas

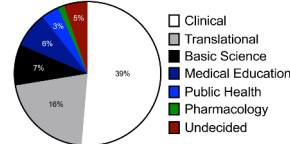


Figure 4. MSRPP medical student research field selection based on what they are pursuing in research currently. The majority of Texas A&M MSRPP medical student's overwhelmingly selected clinical research to align with their future residency plans. Followed by interest in translational research areas.

Research Deliverables

MSRPP Student's Scholarly Research Deliverables

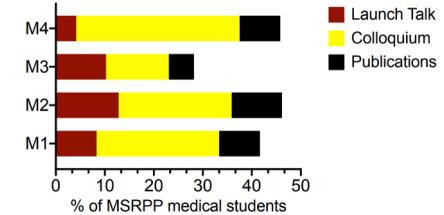
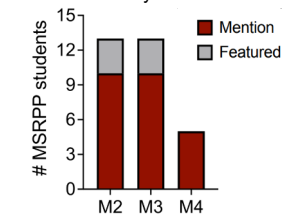


Figure 5. MSRPP student's scholarly research deliverables during FY 2020-2021. The bar graph shows three venues for students to showcase their research at Texas A&M through events organized and sponsored by the OMSRE. Comparing totals of all deliverables shows that M1, M2, and M4 display similar output in participation in monthly launch talk series, the annual medical research colloquium, and number of students with publications.

MEID 618: Review Abstract as reviewed by Instructors



Peer-reviewed Journal Publications

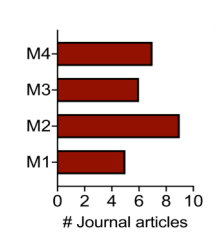


Figure 6. MSRPP student research deliverables. (A) The vast majority MSRPP students obtained distinction on their abstract from the final assignment of the M1 course MEID 618. Specifically, 95% of MSRPP students were published in open access webpage with 23% receiving featured distinction. (B) The chart shows the number of total publications for MSRPP students per class found in PubMed peer-reviewed journals.

Conclusions

- OMSRE survey data revealed a strong positive correlation with medical students' research interests and their career goals (Figs. 1 and 4).
- After transition to P/F grading for USMLE board exams, the number of medical students pursuing a structured research program is predicted to dramatically increase as means to stand out for competitive residency specialties (Figs. 1 and 2).
- All major classes and clerkship COM campuses were effectively advised via individual zoom coaching sessions (Fig. 3).
- Research deliverable data revealed MSRPP students successfully develop critical thinking skills and strong communication skills via MSRPP sponsored events (Fig. 5 and 6).
- A strong correlation with MSRPP students and students who received honors in MEID 618 M1 course (Fig. 6 A).