

work is intended to inform planning and implementation of future initiatives. **METHODS/STUDY POPULATION:** Mentoring programs for CRPs are an important component of the workforce development landscape but have received less attention compared to faculty and trainee mentoring. In 2025, the CRP Task Force (CRPT) Special Interest Group (SIG) of the Association for Clinical and Translational Science (ACTS) convened a mentoring-focused working group. A short survey was distributed via the ACTS conference, SIG online community site, and presented at the CRPT SIG Spring and Summer 2025 meetings to identify institutions with current, past, or planned CRP mentoring programs. The goal was to map program characteristics beyond those represented in the working group. Respondents who opted in were invited to a virtual focus group in July 2025 to share additional insights. **RESULTS/ANTICIPATED RESULTS:** Between April and July 2025, 29 complete survey responses were received. After removing duplicates, 11 institutions reported active CRP mentoring programs, 8 planned to implement future programs, and 6 had no current program or future intent. One institution had a discontinued CRP mentoring program. Including working group members, 16 programs were mapped. Most programs use a 1:1 mentoring model, two use group mentoring, and one uses a mixed approach. Common goals included career/professional development, networking, onboarding, and skill-building. Program scope varied widely, from a narrow focus on a few roles to programs open to any research employee. Future analysis will explore program buy-in, support, resources, and evaluation. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Mapping the landscape of CRP mentoring programs is a critical first step toward developing decision-making tools for institutions considering future implementation. Identifying shared and unique program features supports resource sharing, reduces duplication, and strengthens workforce development efforts.

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Implementation of a Clinical and Translational Research Pathway for Health Sciences Students Across Washington, Wyoming, Alaska, Montana, and Idaho Region

Aric Lane¹, Mark Whipple¹, Holly Martinson², Cynthia Sprenger¹ and Aly Edmondson¹

¹University of Washington and ²University of Alaska Anchorage

OBJECTIVES/GOALS: The Clinical and Translational Research (CTR) Pathway aims to increase the number of health science professionals across the WWAMI Region (Washington, Wyoming, Alaska, Montana, and Idaho) with significant awareness, interest, and experience in research. **METHODS/STUDY POPULATION:** Two cohorts of health sciences students have completed the formal coursework of the CTR Pathway, including sixty-three medical students from across the WWAMI region. Cohorts were organized into an Alaska in-person group, a Seattle in-person group, and a regional virtual group. Coursework includes a year-long series of three elective classes addressing key concepts of designing,

conducting, and presenting results of a research project. Students engage in a dedicated full time 8-week summer research experience under the guidance of a research mentor. The culminating curriculum focuses on strong scientific communication by preparing students for poster and oral presentations at regional and national conferences. **RESULTS/ANTICIPATED RESULTS:** The ultimate goal of the CTR pathway is to increase the number of health providers across the WWAMI region participating in CTR during their educational experience and subsequent professional careers. Many health sciences students hesitate to engage in research due to a perceived lack of necessary skills. The CTR pathway addresses this gap by equipping students with the research competencies needed to participate confidently in scientific inquiry. Feedback from the first two cohorts has been overwhelmingly positive, with many students highlighting how the CTR pathway enhanced their confidence and knowledge, empowering them to execute their proposed research projects and presentations successfully. The third cohort of students joined the CTR pathway in January 2026. **DISCUSSION/SIGNIFICANCE OF IMPACT:** The CTR pathway positions early health sciences students to engage in research more deeply during their education and prepares them to seek additional training opportunities toward a career in research. Additionally, students located at regional sites and have a strong interest in practicing in rural areas.

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Indiana Medical Student Program for Research and Scholarship (IMPRS): A 6-year analysis of program outcomes (2018-2023)

Anne Nguyen¹, Nihal Nagesh², Alena Frances Hornak², Martha Eldredge Hunter², Arunabh Sinha², Luke Randall Jackson², Mirian Ramirez² and Allison Li²

¹Indiana University School of Medicine and ²IUSM

OBJECTIVES/GOALS: To assess participation, satisfaction, and scholarly outcomes of IMPRS, a structured 10-week summer research program for rising second-year medical students at Indiana University School of Medicine (IUSM), one of the largest medical schools in the nation, across six cohorts (2018-2023). **METHODS/STUDY POPULATION:** We conducted a retrospective analysis of 1,090 IMPRS participants across six cohorts (2018-2023) at IUSM's nine regional campuses. Students engaged in clinical, translational, community-based, and health outcomes research, culminating in an annual poster symposium. Program data included application numbers, participation rates, and satisfaction surveys. Scholarly outcomes were assessed via systematic PubMed and Scopus searches for publications derived from student projects. Search strategies combined student and mentor names, with results matched against symposium abstracts based on shared title keywords, content, topics, findings, or methodology. These matches were then used to calculate publication rates, time to publication, and analyze trends across cohorts. **RESULTS/ANTICIPATED RESULTS:** Application rates increased from

23% (2017) to 76% (2023), with 21% to 61% ultimately participating. From 2017 to 2023, applications rose 77% (155 to 274), and participants increased 114% (103 to 220). Over six years, 1,090 students across IUSM's nine campuses took part in IMPRS, resulting in 313 unique publications. The overall publication rate was 30.83%, with a mean time to publication of 22.6 months (IQR 13.0–30.8). Participant satisfaction remained high, with over 90% of students agreeing the program was a positive and productive experience. **DISCUSSION/SIGNIFICANCE OF IMPACT:** IMPRS demonstrates a strong model for structured summer research, with a 30.83% publication rate comparable to similar programs (24–34%). High satisfaction and sustained growth indicate IMPRS successfully fosters scholarly development and cultivates future physician-scientists.

Community-researcher matchmaking events: Connections across the academic pathway

Amarette Filut, Kat Phelps, Elizabeth Knoll and Michelle Chui
University of Wisconsin-Madison

OBJECTIVES/GOALS: Cultivating authentic partnerships between community members and scholars requires significant time and effort. Scholars often encounter situations with insufficient time to build a mutually beneficial partnership. Our matchmaking events provide a space for researchers to connect with community members and begin their partnership journey. **METHODS/STUDY POPULATION:** UW-Madison Institute for Clinical and Translational Research (ICTR) partnered with UW-Madison Wisconsin Network for Research Support (WINRS) to invite scholars in ICTR Workforce Development Programs to attend a community advisory board meeting, share about their research, and invite feedback from community members. Each event was scheduled for 90 minutes in the evening at an accessible location in the community. Scholars met with WINRS in advance to share their intent for the meeting and receive guidance on how to best prepare. Each event allowed for a maximum of 3 scholars to attend. During these events, scholars shared either an overview of their area of research or a specific research project and invited feedback and guidance from community members. **RESULTS/ANTICIPATED RESULTS:** Feedback from community members is a critical component of community-engaged research. Scholars across career stages have participated in matchmaking events, including PhD students, postdoctoral trainees, and faculty members. During the event, community members acknowledge the importance of the scholar's research and suggest areas of improvement. Some community members offer to connect a scholar with a community organization that would be invested in their work, providing an opportunity to start building an authentic relationship. Scholars have subsequently participated in Community Advisory Board meetings, bringing their team members with them to advance their knowledge and skillsets related to community engagement.

DISCUSSION/SIGNIFICANCE OF IMPACT: After completing trainings on community-engaged research, scholars are unsure how to start connecting with community, demonstrating the utility of Matchmaking events. These events provide an opportunity to connect with community members and begin developing relationships with community members and organizations as part of their career.

Enhancing the physician-scientist workforce: Evaluating a mentored research program for enhancing medical students' research competencies

Brooke Piercy¹, Nicole Miovsky¹, Margaret Schneider² and Joe C. Wen³

¹University of California, Irvine, Institute for Clinical & Translational Science; ²University of California, Irvine and ³School of Population & Public Health

OBJECTIVES/GOALS: The scientific workforce has seen a trending decrease in future clinicians pursuing research over the last several decades. This study assessed effectiveness of a mentored research program to increase research skills and future research interest among medical students. **METHODS/STUDY POPULATION:** The Medical Student Research Program (MSRP) at UCI is designed to provide research training to medical students beginning their first year of medical school until graduation. All students applying to enroll in the MSRP complete a baseline survey prior to program enrollment and an annual survey yearly afterward. Baseline surveys collected students' self-rated confidence in research skills, along with their future intent to use research as a clinician and to pursue a future research career after medical school. Annual surveys tracked change over time in students' research competencies and their future intent to use research. **RESULTS/ANTICIPATED RESULTS:** Annual surveys (N=128) assessed the change from baseline to one year in research competencies and students' intent to use research in clinical practice (mixed design ANOVA) and in their intent to conduct research in their career. Evaluations indicated improved medical student research skills, with a significant increase in student research competencies across time ($F(1, 173) = 25.4, p < 0.001$) found for both non-enrolled ($M=3.76$) and enrolled ($M=4.07$) MSRP students, with MSRP students reporting higher mean research competencies at one year. Yet similar to national trends, there was a decrease in students' intentions to use research in their clinical career at one year ($F(1, 173) = 25.4, p < 0.001$). This trend was more pronounced in students no longer enrolled in MSRP ($F(1, 173) = 4.7, p = 0.006$). **DISCUSSION/SIGNIFICANCE OF IMPACT:** Preliminary findings demonstrate enhanced student research competencies during the first year of the program. However, the decline in students' intentions to use research in the future highlights a need for continued investigation into the factors driving this decline and solutions to prevent decline in the research workforce.