Student-Led Brief Series | April 2025

Brothers in Research:

Promoting Undergraduate Research Through Targeted Support for Men of Color

The Brotherhood Initiative is a research-to-practice partnership that draws upon evidence-based approaches to promote academic success for undergraduate men of color at the University of Washington. The BI seeks to build a community of scholars that is equipped with the skills and knowledge to grow and succeed in college and beyond graduation. Our "Student-Led" brief series features topic overviews, student stories, and considerations for practitioners and student leaders working to promote and inspire student-centered approaches to critical issues impacting men of color in higher education.

Aarun Hendrickson graduated from the University of Washington in 2024 with a degree in Neuroscience. He is currently a Research Scientist studying neurodegenerative conditions such as Alzheimer's Disease, diabetes, and aging, and will be starting his PhD in Molecular Medicine and Mechanisms of Disease at the University of Washington in fall 2025.

INTRODUCTION

Undergraduate research is a well-known high-impact practice (HIP) that enriches student learning and facilitates academic and professional identity development. The many positive effects of undergraduate research experiences include gains in academic skills, self-efficacy, employment opportunities, and increased retention and graduation. However, students of color generally, and men of color more specifically, face persistent barriers that limit access to and participation in research opportunities. These barriers include a lack of institutional policies that encourage all students to participate in research, financial constraints that limit research participation, and the lack of relationships and social networks related to research. For instance, one major study found that students' lack of research participation could mainly be attributed to unawareness of research opportunities, unfamiliarity with the benefits of participation, and not knowing others who had participated in undergraduate research.[1] In another study, researchers identified significant barriers to health science research opportunities, noting that the informal nature of undergraduate research recruitment often requires students to find professors using staff directories and cold-emailing them to seek research positions.[2]

Learning from student experiences and supporting student-driven solutions to the barriers noted above are essential for increasing access and participation in high-impact practices. This brief highlights

1 Mahatmya, D., Morrison, J., Jones, R. M., Garner, P. W., Davis, S. N., Manske, J., & Ditty, J. (2017). Pathways to undergraduate research experiences: A multi-institutional study. Innovative Higher Education, 42, 491-504.

2 Luo, O. D., Lin, S. H., Grover, S., Sritharan, P., & Hansen, S. (2022). Undergraduate student attitudes and perspectives of the accessibility, supportiveness, and appreciation of research opportunities in the health sciences. *Canadian Journal of Higher Education*, 52(3), 26-41.

Aarun's Story

My main goal in my freshman year at the University of Washington was to get involved with undergraduate research. However, as a student of color with no familial background in academia or support network for guidance, getting involved in research took longer than anticipated. I talked to lots of upperclassmen and all of them said "you just gotta be persistent about it and send emails". But the thing was, I didn't really know how to send those emails or even where to look. I knew there was an undergraduate research database but I didn't realize how important timing and professional alignment were with these research opportunities.

There were just a lot of things I didn't know.

Contrary to my initial expectations, finding a research mentor was challenging. Not only did I not know where to search for lab opportunities, but I also needed help determining which discipline of research best aligned with my personal interests, while making myself as competitive as possible when the ideal position presented itself. Amidst the peak of the COVID-19 pandemic I was able to overcome these obstacles, and with the support of several different programs and peer advisors, I succeeded in finding a research mentor.

However, once I started as an undergraduate researcher, I was presented with a new set of challenges. I didn't really understand what the environment was going to be like or what doing research meant. I had an idea, but not a very accurate idea. How do I learn in lab spaces? How do I talk with PIs? Where can I find guidance on navigating academia as a Latino student? And most importantly, how could I make the most of this amazing new space I was a part of?

With time, first-hand experience, and talking to professors, I discovered what I felt was missing from previous workshops and programs I attended on getting involved with research. I realized there were many opportunities I wish I had known existed, and that I should have been more proactive applying for scholarships from the start.

My project, Brothers in Research, sought to alleviate these problems for students within the University of Washington Brotherhood Initiative. When I joined the BI mentorship program in my sophomore year, I learned that mentorship is something that's really important to me. I realized that if I could find a younger version of me and help them avoid all of these struggles and feelings of discomfort - that'd be great. Sharing what I know means they'd be more successful than I was initially. I also thought that I could make a difference and help diversify these areas that are not very welcoming to people who might not know what they're doing.

how one student leader experienced knowledge gaps associated with undergraduate research and worked to address those gaps for his peers by establishing a culturally specific and responsive learning space. Aarun's story highlights how fostering a supportive peer community and providing tailored resources can empower men of color to access and succeed in undergraduate research.

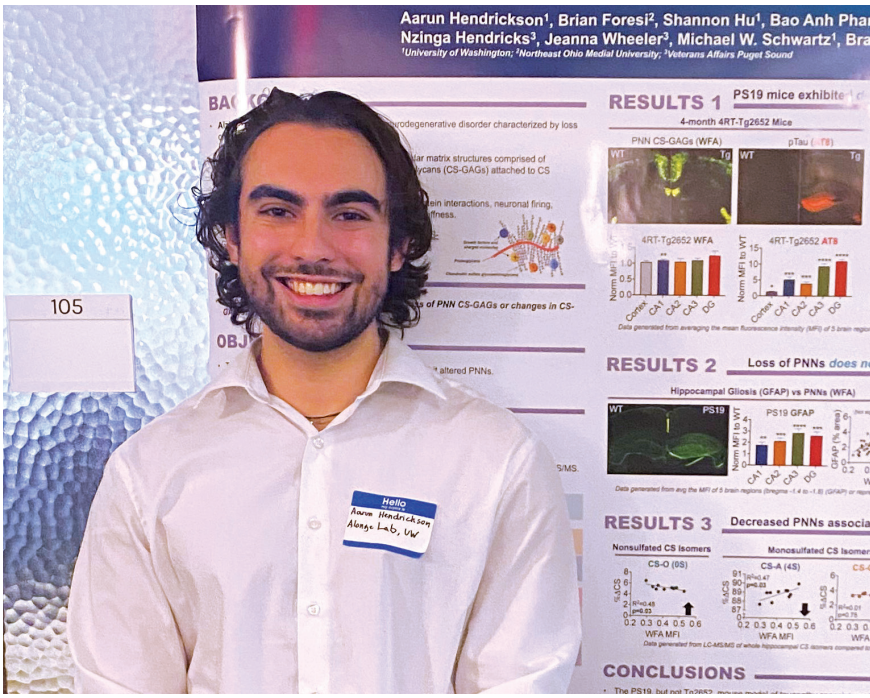
NAVIGATING THE CHALLENGES OF UNDERGRADUATE RESEARCH

Barriers to undergraduate research can be particularly disheartening for men of color eager to engage in research but without the networks for navigating institutional barriers. Aarun Hendrickson's story exemplifies this struggle. As an undergraduate with STEM field aspirations, Aarun knew early on that research would be an important part of his academic success. Nevertheless, Aarun faced a number of barriers related to who and what he did or didn't know regarding research opportunities. On the left, Aarun describes the challenges of finding an undergraduate research position and his subsequent efforts to help bridge knowledge gaps and support other undergraduate men of color.

SUPPORTING STUDENT-LED UNDERGRADUATE RESEARCH INITIATIVES

Despite well-established summer research programs and emerging faculty-led research efforts, there are few examples of student-led initiatives that proactively address the information gap regarding the wide variety of opportunities, expectations,

and challenges that exist in undergraduate research. Although Aarun had participated in other professionally-led research access programs, he found that he still didn't have the support or awareness he needed to navigate the process. His reasoning for starting the Brothers in Research group underscores several key reasons why student-led undergraduate research strategies could be as impactful as those led by professional staff. For example:



- Student-led efforts can be more relatable and accessible to their peers. Students may feel more comfortable seeking advice and support from fellow students who have shared similar experiences and challenges.
- Student-led peer-to-peer approaches can help build a supportive community and enhance social networks, which are crucial for overcoming barriers related to social silos and weak connections to those in the field.

Practitioners and instructors can play a pivotal role in catalyzing and supporting student-led strategies for increasing undergraduate research. Both student leaders and participants benefit from institutional supporters that give early guidance on structure, topics, resources, and continuity. In Aarun's case, he was able to leverage the professional guidance and resources of the Brotherhood Initiative to bring his idea of Brothers in Research to life. Practitioners and instructors interested in supporting student-led undergraduate research groups or programs could consider helping students to:

- Think through the purpose, scope, and structure of the program; clarify topics that need to be covered; generate ambitious yet realistic goals
- Connect with campus and community resources that can provide funding, space, and organizational guidance
- Create a plan of action and navigate unforeseen challenges to implementation

Practitioners and instructors can also guide students by asking hard questions and helping them problem-solve. On the next page, Aarun describes the planning process that helped shape the project.

> "In the second class I talked about a number of opportunities I sent emails to. I then showed them all of the people who didn't respond, said "no", or said "how about next year?" I let the students read my rejection emails and showed them exactly what I submitted. We spent time talking about what I did wrong and what I could have improved on."
>
> **- Aarun Hendrickson**

Aarun's Story

Going into my senior year, I wanted to do something for the BI that could help students like myself. So, I started formulating what would later be called Brothers in Research (BiR). I talked about it first with the BI advisors. They asked me to write something up, which really solidified what I wanted to do. I ended up writing a goals document where I explained what Brothers in Research is. I explained all my personal goals for the program, what I wanted the students to learn, and what I wanted them to take away from it. I then created a year-long schedule, where I broke down each of the quarters. The fall would be focused on personal interests, winter would be identifying research opportunities and contacts, and spring would be focused on helping people who haven't got a research job finish connecting those dots.

When developing BiR, I drew from my experiences in undergraduate research. First, joining a lab was challenging, but I could have avoided much of the work if I had done a better job preparing for each opportunity when it arose. By properly understanding my interests and having experience talking about them (and science topics as a whole) it would have made it easier for mentors to select me when determining who to welcome to their labs. Second, once in a lab, I did not feel very represented in the demographics of academia as a whole. Connecting with others like myself beforehand and having conversations about what that experience is like would have helped me avoid feelings of imposter syndrome, be productive, and contribute significantly earlier. Lastly, I also incorporated lessons from my experience in the McNair program. The McNair program exposed me to more effective ways to find opportunities and connect with professors who might be potential mentors.

FOSTERING UNDERGRADUATE RESEARCH ACCESS

Prior research suggests that there are a number of ways to promote the participation of underrepresented students in undergraduate research. These include establishing mentorship programs that provide guidance and support and implementing structured research programs with clear pathways to access opportunities. Providing financial support, such as stipends or scholarships, can alleviate financial burdens, while targeted outreach and recruitment efforts can raise awareness and encourage participation. Additionally, building professional social networks and fostering research communities can help students feel more connected and supported.

In the process of developing Brothers in Research, Aarun chose to adopt many of the strategies supported in the literature on undergraduate research, but with a focus on building identity, connection, and confidence related to research opportunities. Drawing from his own experiences, he developed weekly workshops that addressed issues relevant to all students, but are particularly challenging for men of color. Aarun recruited group participants through classroom visits, emails, and social media, developed all the workshop materials, and taught the workshops every week throughout the year. By leveraging his passion, knowledge, and leadership skills with his first-hand experiences in undergraduate research, he was able to help numerous students gain a clearer understanding of their interests, and secure their own research opportunities.

BROTHERS IN RESEARCH PROGRAM OVERVIEW

Mission: To provide peers with the knowledge needed to acquire a mentored research position and find professional success within it, while also building a sense of belonging within academia for a budding community of undergraduate researchers in the Brotherhood Initiative.

Goal: Student participants finish the year with either a secured research position or application to a research program or lab

Program Objectives:

1. **Provide BI scholars a space to learn about, personalize, and explore research interests.**
   Key activities:
   - Participants think critically about their research interests and ambitions through short assignments and reflection activities
   - Participants learn about diverse research pathways and experiences from guest speakers (e.g., research administrators, faculty of color, undergraduate and graduate men of color)

2. **Support BI scholars in connecting with individuals on and off campus who are involved with research.**
   Key activities:
   - Participants learn techniques for finding people in fields of interest, obtaining contact information, and scheduling meetings.
   - Participants investigate research-related clubs and campus organizations for further networking

3. **Develop confidence in one's ability to understand and discuss research.**
   Key activities:
   - Participants review and discuss short research papers and abstracts in order to become familiar with different research products
   - Participants review research by researchers of color
   - Participants learn about the benefits of being involved in research (e.g., conferences, publications, awards, jobs, etc.)

Quarterly Topics:

Fall Quarter: Identify research interests, learn where to find research opportunities, and gain experience talking about research you find interesting.

Winter Quarter: Explore summer research opportunities, develop relevant professional development materials, and gain experience networking in academic research spaces

Spring Quarter: Continue to apply for research positions, learn to describe and promote research experiences in resumes and interviews, and explore future opportunities that stem from research experience (scholarships, fellowships, and conferences)

REFLECTION QUESTIONS FOR PRACTITIONERS:

1. *What are the barriers that men of color face in accessing undergraduate research opportunities at my institution? What challenges have I faced or witnessed concerning these issues?*
2. *Based on my own experience or observations, how can I help to increase access and involvement in research?*
3. *How can I help bring awareness to research faculty and administrators about the support and resources needed to better support undergraduate men of color involved in research?*
4. *What other offices or units can I partner with on campus to improve undergraduate research involvement among men of color?*

LESSONS LEARNED

In reflecting on his experience, Aarun identified three important lessons about designing the program and keeping his peers engaged. Practitioners and student leaders can draw insights from this work as they envision and implement strategies to increase research engagement for undergraduate men of color.

- **Make sure students understand the sequential importance of each topic and the value of completing the whole series.** Convey the importance of attending BiR at every stage of the undergraduate research journey and emphasize how the course will help students regardless of whether or not they have been accepted into a position yet.
- **Consider busy student schedules when designing the structure and timing of activities.** Even though many applications for research opportunities are due in late Winter or Spring quarter, many students struggle to prepare their application materials while also managing other responsibilities. Helping students begin preparing their professional materials and exploring REUs at the end of the autumn will allow them enough time to work on the pieces of the applications and secure letters of recommendation progressively without any rush.
- **Promote success by being open about failure.** Aarun suggests that talking about his personal failures was an important part of BiR's success because men of color can be hesitant to share
their personal struggles if they are made to feel that their challenges are unique or their confusion is unwarranted. Rather than focusing on giving advice, programs should make space for sharing real-world experiences where mistakes are made and students work to fix them.

Learn more

Council on Undergraduate Research - www.cur.org
The Council on Undergraduate Research promotes high-quality mentored undergraduate research, scholarship, and creative inquiry. CUR provides support and professional development opportunities for faculty, staff, administrators, and students.

Bhattacharyya, P., & Chan, C. W. (2021). Can undergraduate research participation reduce the equity gap? *Journal of the Scholarship of Teaching and Learning*, 21(1).

Bowman, N. A., & Holmes, J. M. (2018). Getting off to a good start? First-year undergraduate research experiences and student outcomes. *Higher Education*, 76(1), 17–33.

Finley, A., & McNair, T. (2013). Assessing underserved students' engagement in high-impact practices. Washington, DC: Association of American Colleges and Universities.

Pierszalowski, S., Bouwma-Gearhart, J., & Marlow, L. (2021). A systematic review of barriers to accessing undergraduate research for STEM students: Problematizing under-researched factors for students of color. *Social Sciences*, 10(9), 328.

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