



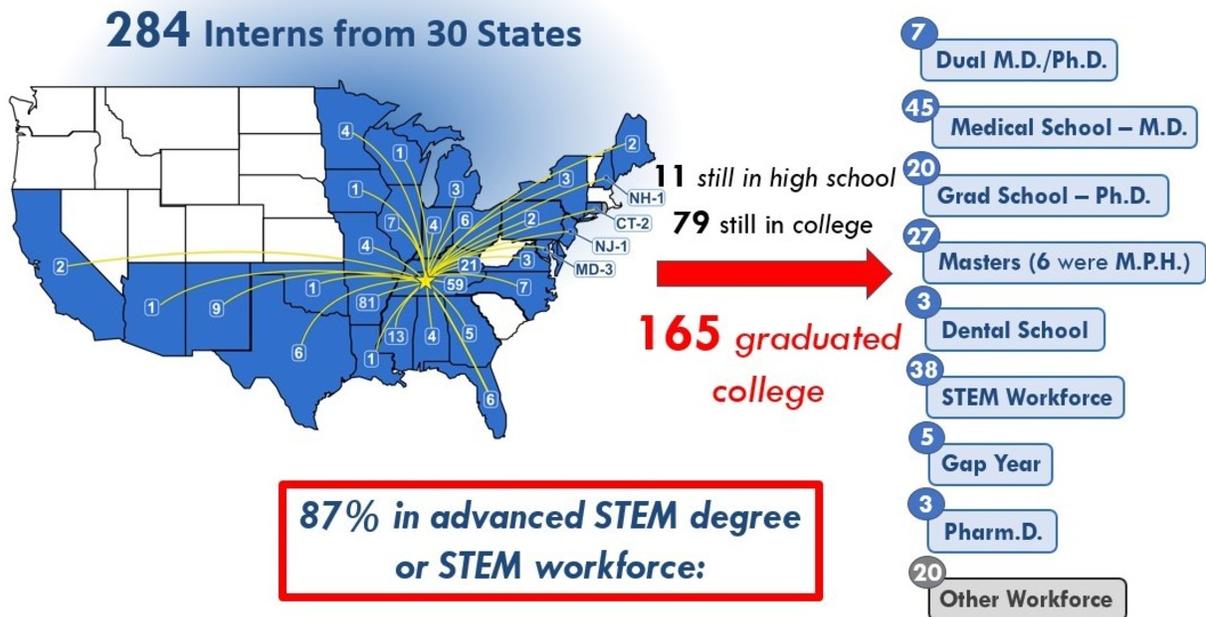
Editor: Rachel Baugh

What a Year!!!

it's been an incredible year! Thank you to all who helped provide STEM opportunities to a fantastic group of 2021 high school and undergraduate summer research interns.

Our updated data is below. Aspironauts continue to knock it out of the park!

13 YEARS OF SUCCESS



2021 Review and Innovations

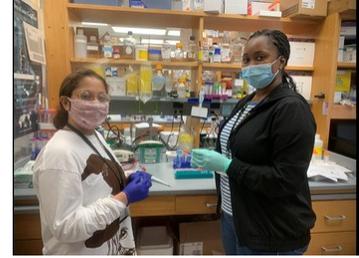
Residential Program

- 40 lab mentors worked directly with 25 undergraduate and 9 high school interns.

Lab Skills Course



- A **12-hour lab skills course** was added during orientation to familiarize Aspirnaut™ participants with the laboratory environment and provide training on essential lab equipment and techniques.



Science Communication and Writing

- A **team of experts** provided professional training in science communication and writing throughout the summer program. Details highlighted below.



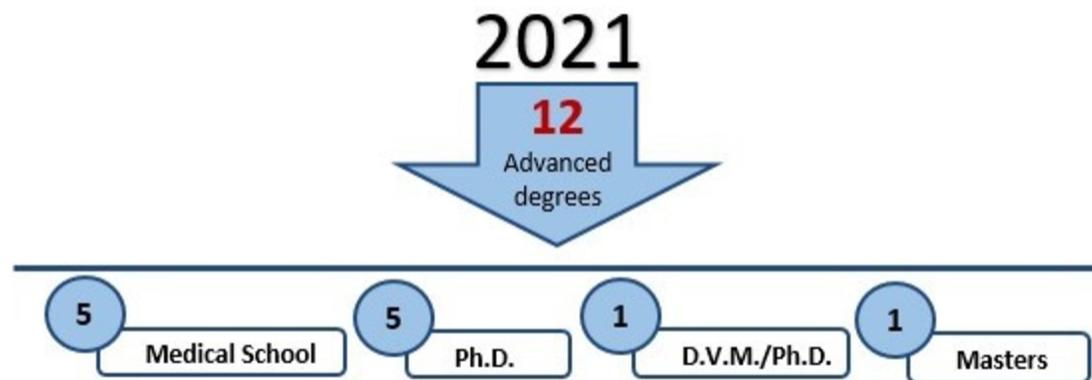
Year-Round College Counseling

- High school students now work with Cynthia Nash, a professional college counselor, throughout their junior and senior years of high school.



Advanced Degree Programs

- **Twelve college graduates** matriculated into advanced degree programs in 2021.



DONATE NOW

New Partnership

We are excited to announce a generous investment from the Springer-Lu Family Foundation that will fund a cohort of high school participants called the **Aspirnaut™ Lu-Springer Research Scholars**. The partnership focuses on the recruitment of high school students from diverse backgrounds while providing



year-round programming. The partnership aligns with our mission and places value on helping students find opportunities that could impact their educational career path. We are thrilled to partner with the **Springer-Lu Family Foundation** and look forward to the many opportunities this will create.

Science Communication

Effective science communication is a key professional skill that raises awareness about innovation within the scientific community and to the general public. This summer, Aspirnauts had the opportunity to work with a team of experts in the field of science communication and writing. Meet the team:



Susan Allison, Ph.D.

Dr. Allison is the editor in chief of *Nature Reviews Nephrology* and consulting editor to *Nature*. This summer, she conducted three sessions with our interns focused on the basics of science writing and figures. Her sessions included didactics and activities. Dr. Allison also worked with each student individually to review their abstracts.

Joshua Schimel, Ph.D.

Dr. Schimel is a professor of soil science at the University of California Santa Barbara and author of *Writing Science*. The Aspirnaut™ students had two sessions with Dr. Schimel on how to make science writing concise and compelling. Each student also received a copy of Dr. Schimel's book, *Writing Science: How to Write Papers That Get Cited and Proposals That Get Funded*.



Igor Babailov, Hon. RAA

Babailov, Hon. RAA, an internationally known portrait artist led interns through the basics of drawing in a one-day workshop. This skill assesses understanding of concepts and helps interns compose their graphical abstracts.

Aaron Fidler, Ph.D.

Aaron Fidler, Ph.D., has expertise in graphic design and showed interns how to use software tools to transform their posters and graphical abstracts into refined figures for publication.



Tetyana Pedchenko, Ph.D.

Tetyana Pedchenko, Ph.D., led participants in weekly sessions to build



their scientific presentations: posters, graphical abstracts, and oral presentations, applying the principles gained in the other sessions.



Featured Aspirnaut™: Jenny Nguyen

Jenny Nguyen is a three-time Aspirnaut™, once as a high school student and twice as an undergraduate. Jenny was born in Vietnam and later immigrated to the United States with her parents. She is currently in her first year at Emory School of Medicine.

1. Tell me about your family and where you grew up.

I grew up in the small town of Biloxi, Mississippi, which surprisingly has a thriving Vietnamese community. My mom worked in a shrimp factory while my dad welded pipes underneath the helms of naval ships to make ends meet. Since immigrating, my parents have owned and operated a small grocery store in Biloxi, and my mom now works as a nail technician, and my dad works on independent welding projects.

I was fortunate to have a quality high school education. After spending two years at Biloxi High School, I transferred to the Mississippi School for Mathematics and Science (MSMS), a public residential magnet high school, which provided academically rigorous programs.

2. How did you learn about Aspirnaut™ and what made you apply?

While at MSMS, I overheard one of my peers talking about the Aspirnaut™ program. I ultimately applied, as I had not had formal research experience. Based on my Advanced Placement lab experiences, I wanted to take the next step forward to work on a long-term project that could have a lasting impact on human health and improve the lives of others.

3. Do you have a favorite Aspirnaut™ moment?

My favorite memory was during my first year as an undergraduate student. My fellow interns were from all over the world, and I learned so much from them! We got together for movie nights and dance sessions in our apartments, and I loved the fun and compassionate atmosphere we created during that year! We often chatted well into the night about our families, upbringing, and aspirations while sharing a comforting meal.

Aspirnaut™ also empowered me to pursue a career in health sciences and to incorporate an aspect of research into my career. The program ingrained into me that I have the capabilities and tenacity to pursue advanced degree programs and that there are scientists and health professionals that look like me.

4. What is your proudest achievement?

With faculty support, mentorship from Drs. Billy and Julie Hudson, Ms. Cindy Nash, and numerous others, I graduated from the

University of Pennsylvania with honors! My graduation is my proudest achievement as of today, as it represents how hard my parents, grandparents, and community worked to uplift me while I studied. It represents the opportunity for education that my parents didn't receive while they were growing up. My family and community share my accomplishment!



5. What adversity have you had to overcome?

Financial constraints have often posed an obstacle throughout my life. With a household of eight living barely above the poverty line, I faced food insecurity throughout childhood. After obtaining my first job at 15, my earnings were often dedicated to feeding our household. At Penn, even with financial aid, it was not sufficient to cover expenses like weekly groceries, winter clothing, and textbooks. These expenses ultimately fell upon me. I maintained two part-time jobs throughout my undergraduate studies. It was particularly challenging during my sophomore year when unexpected medical bills forced me to increase the hours that I worked. Today, I continue supporting myself but am equipped with more developed time management skills and confidence in myself.

I am also a first-generation student. At Penn, I have had to navigate the hidden curriculum of college -- the things you learn in college that you need to succeed but aren't necessarily taught in the course lectures. Thankfully, I received thoughtful and compassionate mentorship from my counselors at MSMS, Drs. Billy and Julie Hudson, and other teaching faculty, who guided me through the college admissions process.

6. What are your future goals and aspirations?

Thinking back to my medical school application process, I was astounded by the amount of money and resources that were needed to even PREPARE for the application process. This process is daunting for all students but especially for first-generation students as they may not have the financial or academic support needed for the applications. I hope to mentor other first-generation students pursuing medicine and have my own scholarship program to support these students.

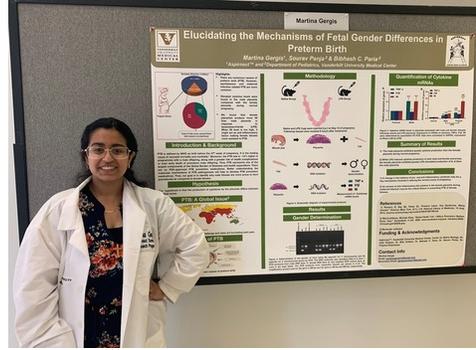
Outside of mentorship, I hope to one day work in health policy and expand access to equitable care in underserved areas. I also look forward to being a physician, providing high-quality and equitable care to all patients.

7. What else should we know about you?

I like to weightlift, cook, and learn new languages. I've recently found that American Sign Language is the third most common language in the U.S., so I've recently taken up sign language. I'm hoping that my repertoire of languages will help me connect with my future patients.

**QuestBridge Finalist Martina
Gergis Matches**

Congratulations to Martina Gergis on being selected as a **QuestBridge National College Match finalist AND to matching at Davidson College in North Carolina!** Martina is currently a senior at STEM Prep High School in Nashville, Tennessee, and a 3-time Aspirnaut™ participant. Martina receives **full scholarship with no contributions or loans**. QuestBridge is a college admission and scholarship process where students with promise and limited financial resources can be admitted early with full scholarships to QuestBridge college partners.



2022 Application is OPEN! **Deadline: January 17, 2022**

We are accepting applications for High School and Undergraduate Aspirnaut™ Summer Research Internships. Recruitment is focused on individuals from diverse backgrounds and underrepresented in STEM careers. We are looking for students who have achieved excellent grades and test scores in math and science and who have demonstrated a commitment to pursuing a career in a STEM field.

To learn more about the High School Program, Click [HERE](#)

To learn more about the Undergraduate Program, Click [HERE](#)

DONATE NOW

If you are interested in getting involved or sponsoring an Aspirnaut™ experience, please contact Rachel Baugh at rachel.baugh@aspirnaut.org.

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