

#### **Campaign Priority II**

Enhancing the living and learning environment through new construction and renovation of campus facilities

Goal: \$10 million for Science and Technology Center Expansion



You invest in the next generation of thinkers, problem solvers and innovators by supporting Rider's Science and Technology Center expansion.



Since 1994 the University has been adding on and upgrading its science complex to meet the demands of modern science education. Campaign funds will create a new wing with modern labs for anatomy and physiology, cybersecurity and an evolving program in software engineering. The initiative will also support state-of-the-art equipment and a new greenhouse, along with distinct areas meant to encourage collaboration, discussion and study.

Ask questions. Find answers. Ask more questions. At Rider, science majors conduct independent research under the guidance of expert faculty who challenge them to be creative, think intuitively and explore the world through hands-on learning. From the classroom to the laboratory and out into the field, Rider students are fully engaged in the process of scientific discovery.

![](_page_1_Picture_1.jpeg)

"When I came to Rider I was undecided what direction I wanted to go in the future, so I enjoyed being able to take a wide variety of different science classes, from organic chemistry to kinesiology. Getting research experience was also very rewarding. I learned a lot through developing my critical thinking, research and analytical skills."

**Peri Pavicic '20** Graduate student, forensic science George Washington University

As undergraduates, Peri Pavicic '20 and Tom Long '20 investigated the use of wearable sensors on the shoes of long distance runners to collect training data. Working under the direction of Dr. Drue Stapleton, assistant professor of health & exercise sciences, they sought to identify the effects of certain biomechanical metrics on the potential for the development of running-related injuries. Shifting this type of research from the lab out into the field makes it less costly and allows the data, which is transmitted to an app, to be immediately available to the runner. Pavicic and Long, who were members of the University's track and field teams, examined such metrics as steps per minute, impact per step, distance, pace and cumulative impact per session.

Rider is proud that its science programs develop qualified candidates for top graduate programs across the country. In the last several years Rider students have gone on to further study at:

- Brown University
- Johns Hopkins University
- Harvard University
- New York University
- Purdue University
- Rutgers University
- The Scripps Research Institute
- University of California San Diego

- University of Florida
- University of Maryland
- University of Miami
- University of Michigan
- University of North Carolina Chapel Hill
- University of Pennsylvania
- University of Southern California
- Yale University

## Donors who support the expansion of Rider's Science and Technology Center

Foster the discovery of new knowledge Create an environment for collaborative learning Provide Rider with a competitive recruitment advantage

Position students for future success

## **Preparing students for real-world science**

Today's science is interdisciplinary, and practitioners need to be able to draw knowledge from diverse perspectives to solve problems. This approach prevents students from learning in silos and helps them to understand critical connections between seemingly distinct fields of study. At Rider, students acquire a firm foundation in traditional disciplines such as chemistry, biology, mathematics and physics. Rider professors assist students as they transfer this broad-based knowledge to exciting careers in the ever-evolving fields of science and medicine.

"My professors did a great job in assisting all of the students, helping them overcome any issues that arose. The small classes allowed me to get more attention, and having that interaction with my teachers, and knowing that I could count on it, really helped me."

**Ryan Nacker '20** Computer scientist Naval Air Systems Command

![](_page_2_Picture_9.jpeg)

Under the direction of Dr. Md Liakat Ali, assistant professor of computer science, Ryan Nacker and senior Cameron Jenkins took a rudimentary password management system that they developed in their secure software engineering course and advanced their idea to create a secure app for IOS devices. Working as a team, Nacker and Jenkins applied the knowledge they gained in Rider's cybersecurity courses to focus on security and usability, designing, coding and successfully testing the application. Their app stores passwords in an encrypted database using a key and hashing algorithm. This type of experiential learning allowed Nacker to secure a job offer from the Department of the Navy six months prior to graduation. "I still credit my education at Rider when asked what was the formative decision which propelled me forward into a successful medical career."

### Dr. Nicholas Tsarouhas '85

Children's Hospital of Philadelphia Medical Director, CHOP Transport Team Attending Physician, Emergency Medicine

![](_page_3_Picture_3.jpeg)

# **Naming Opportunities**

- Science and Technology Center Building Naming (\$4M) \*
- 3 Study Areas (\$20K)
- Additional Science Equipment (\$50K)
- The Greenhouse (\$150K)
  - Greenhouse Growth Racks (\$4K)
  - Greenhouse Tables (\$3K)
- Science and Technology Center Atrium (\$175K)
- Cybersecurity Classroom (\$250K)
  - Cellebrite UFED Mobile Security Tools (\$18K)
  - Nao V6 Robot Learning Platform (\$9K)
  - Ultimaker 3D Printers (\$7.7K)

- Science Lecture Hall 201 (\$250K)
- Software Engineering Classroom (\$250K)
- Software Engineering Prep Room (\$25K)
- Anatomy and Physiology Classroom (\$350K)
  - Anatomy & Physiology Prep Room (\$25K)
  - Bod Pod (\$37.5K)
  - Anatomage Table (\$60K)
  - Syndaver (\$72K)
  - Motion Capture System (\$100K)
- \* Already assigned

![](_page_3_Figure_26.jpeg)

The original 30,000-square-foot science building has more than doubled in size since it was first constructed in 1961. The proposed 9,500-square-foot addition will expand the size of Rider's Science and Technology Center to more than 79,000 square feet of space, providing the important upgrades necessary to train the next generation of medical, healthcare and science professionals.

![](_page_4_Picture_0.jpeg)

"My years at Rider laid the foundation for my lifetime pursuit of creating innovations within biotechnology and formed my interests in biomedical diagnostics and technology, which influenced the direction of my graduate studies. One can't ask for a better place than Rider to challenge and prepare young minds to take on the world."

#### Dr. Eli Mordechai '90

Chief executive officer, Genesis Biotechnology Group

"At Rider, I had the opportunity to start working in a research lab during the spring semester of my freshman year and was able to continue doing research every semester and summer until I graduated. When I started my graduate program, I was surprised to learn that I had just as much, if not more, research experience compared to my peers that entered the program at the same time as me."

### Brandon C. Enalls '15

Geomicrobiologist 2021 Ph.D. Candidate, Organismic and Evolutionary Biology Harvard University

![](_page_4_Picture_7.jpeg)

![](_page_4_Picture_8.jpeg)

- For more information -Pamela Mingle, Senior Director, Development 609-896-5000, ext. 7725 | pamingle@rider.edu