



ANNE OBIDZINSKI/UNIVERSITY OF PITTSBURGH

Dickson winner nabs Nobel

“As a physicist, I marvel at how we managed to bend space and time to get three eminent scientists here on the same day,” said University of Pittsburgh Chancellor Patrick Gallagher on July 19 at the University Club during his welcoming remarks on Dickson Prize Day.

Less than three months later, one of those scientists would win the Nobel Prize in Chemistry.

Carolyn Bertozzi, the winner of this year’s Dickson Prize in Medicine, which is Pitt Med’s highest honor, learned in early October that she would share a Nobel Prize with Morten Meldal, professor at the University of Copenhagen, and K. Barry Sharpless, W.M. Keck Professor of Chemistry at Scripps Research, “for the development of click chemistry and bioorthogonal chemistry.”

Bertozzi is the 16th Dickson Prize winner to become a Nobelist.

Recognized for her foundational work in bioorthogonal chemistry, Bertozzi is the Anne T. and Robert M. Bass Professor at Stanford University. Her research on how sugar molecules on cell surfaces can be modified by chemical reactions within a living system led her to identify new approaches to treating cancer, inflammation and bacterial infections.

Two other esteemed biomedical researchers also came to campus in July to receive the Dickson Prize. The pandemic delayed presenting the honor to the 2020 and 2021 winners until this summer.

Cynthia Kenyon, the 2021 winner, vice president of aging research at Calico Life Sciences and an emeritus professor of biochemistry and biophysics at the University of California, San Francisco, overturned the longstanding notion that aging does not have a genetic basis but is simply a result of progressive decline.

The 2020 winner, **James Collins**, who is the Termeer Professor of Medical Engineering and Science at the Massachusetts Institute of Technology, has engineered artificial living systems for combatting rare metabolic and inflammatory diseases and cancer. His team has also built systems that can rapidly detect infectious threats—like masks incorporating COVID-19 diagnostics.

Several Pitt scientists also shared their work with the guests, giving talks on topics related to the keynotes, like synthetic biology for next-generation medical robotics by Warren Ruder, an associate professor of bioengineering, and weight loss and disease in aging by Aditi Gurkar, an assistant professor of medicine.

Gurkar posted on Twitter, “I got to spend the day with some amazing scientists, and I feel so inspired! This is why I love science.” —*Asher Jones and Anastasia Gorelova*

MEET THEM WHERE THEY ARE

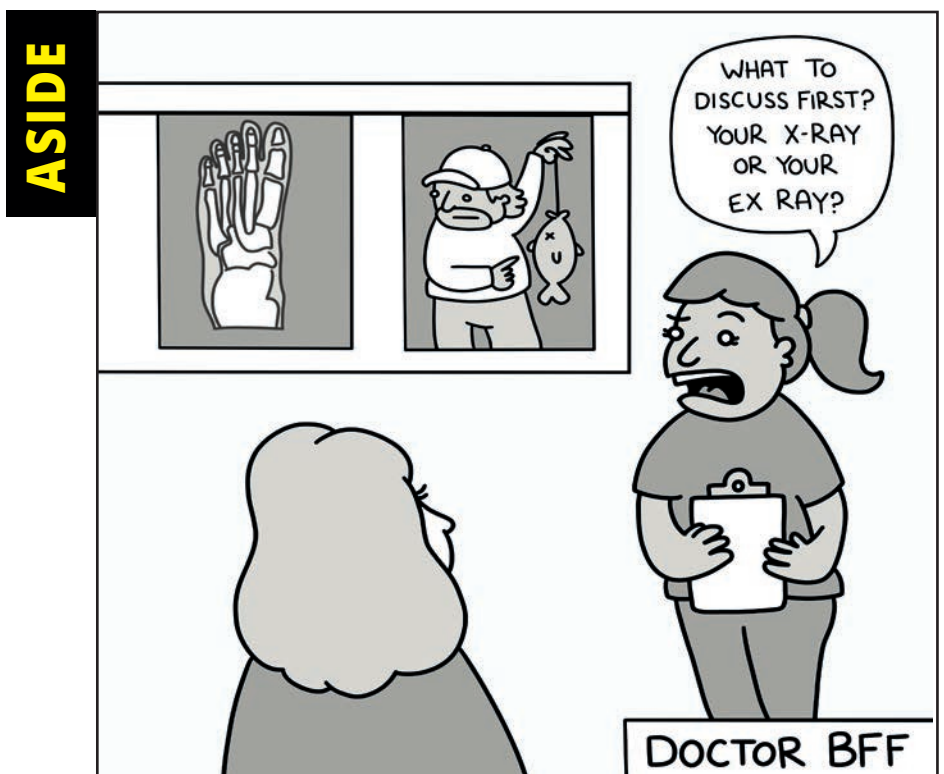
Altoona is a small city in central Pennsylvania—a company town founded by the Pennsylvania Railroad. In late May, residents and faculty from all eight UPMC family medicine residency programs across the state gathered at a conference center there for a scholarship day. Pitt family medicine chair Tracey Conti, an MD, gushed about the 33 research presentations she was taking in.

“If we just stay in the academic center, we’re missing so much,” Conti said. “Think about the cascade of care and the small percentage of patients that actually hit the academic center. If we only learn from patients from there, we’re really not doing the scholarship and providing good clinical advancements for the majority of the population. Working across the system and collaborating outside allows you so much more growth.”

John Maier, an MD, PhD assistant professor of family medicine and the department’s director of innovation and strategic initiatives, says discovering and implementing new solutions from family medicine in a timely manner will require greater investments in electronic health records, artificial intelligence and machine learning.

In response to a call from Dean Anantha Shekhar and in collaboration with Shyam Visweswaran from the Department of Biomedical Informatics, Maier introduced the entire Class of 2025 to these topics in the spring. The school’s longer-term goal: Require all students to learn about AI and machine learning in enough depth to responsibly use them to care for patients and carry out research.

Maier’s introduction for the class sent the message that AI and machine learning aren’t only the purview of the biomedical informatics or computational biology departments. —*Cara Masset*



by Tara Kaloz