



PHOTO: RYAN S. BRANDENBERG

## David Dugue, CST '15, MED '21 Operating Room Artist

**D**avid Dugue remembers the dedication his single mother, Margaret Cesarius, put into her job as a nurse taking care of surgery patients. “She’d work insane hours,” Dugue recalled, leaving his maternal aunt and grandmother with “pretty involved hands” in raising him and his sister.

When Dugue’s aunt, Marie Lourdes Cesarius, was diagnosed with multiple sclerosis, helping to care for her fostered his interest in healthcare. But his aunt’s passing in middle school shook Dugue’s resolve in a way that resonated all the way to his biology and pre-med undergraduate work at Temple.

“A lot of my desire to go into medicine was to help her,” Dugue said. “But, at the same time, my motivation also wavered when she passed away.”

In college Dugue felt stagnant. His grades at Temple were “okay,” but he wasn’t sure they were adequate for admission to medical school. Instead, he pursued a master’s degree in biology at Drexel University, figuring he’d follow a talent for research into pharmaceutical development.

Dugue realized he disliked spending so much time in a laboratory. His desire to help people directly was rekindled, and with it came a new determination. He went back to Temple to pursue his medical degree.

At Temple, Dugue finished in the top third of students at the Lewis Katz School of Medicine, receiving the Jerry Zaslow Memorial Award for students who demonstrate high academic and well-rounded achievement. Dugue’s hard work paid off, helping to secure a postdoctoral residency at the Weill Cornell Medical College. Dugue is in training to become a plastic surgeon.

“In general medicine, I was unsatisfied with the prolonged treatment course,” said Dugue, who explained that much of the plastic surgery field deals with restoring “form and function” to people after traumatic injuries or treatments. “I like having the power to fix a problem at the tip of my fingers.”

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The 30 Under 30 program recognizes trailblazing young alumni who have demonstrated professional success in any industry, significant

community involvement or a commitment to maintaining a lifelong relationship with Temple University. 30 Under 30 highlights outstanding Owls from the more than 55,000 young Temple alumni who exemplify what it means to be Temple Made.

## Anuj Mehta, CST '17 Driven Doctor

**S**urgery to repair an anterior cruciate ligament one week before he started medical school led Anuj Mehta to become fascinated with orthopedic surgery. Now, as an orthopedic surgery resident at Temple University Hospital, Mehta is devoted to helping people struggling with acute injuries get back to the same or better level than they were before.

“I really enjoyed my time at Temple, and Temple really provided me with the opportunity to become the person I am today in my career,” said Mehta.

In his second semester, Mehta became an undergraduate research assistant who served as a project liaison between two research labs—one led by Darius Balciunas, associate professor of biology, the other by Madesh Muniswamy, professor of medical genetics and molecular biochemistry in the Department of Translational Medicine at Temple’s Lewis Katz School of Medicine. The focus: using CRISPR/Cas9 gene-editing technology on zebrafish to study tissue regeneration capabilities.

“I thought the research was magical and it was paramount in me going to medical school,” said Mehta.

While at Temple, Mehta also trained to be a volunteer Temple emergency medicine technician. When a hospital patient’s heart stopped beating one day, Mehta immediately began CPR, which, in combination with the use of an automatic external defibrillator, saved the patient’s life. “It was scary, but at the same time it was an incredible feeling knowing that, in any setting, you can help someone,” he recalled.

While at Temple, Mehta helped found Phi Delta Epsilon Medical Fraternity in 2014 along with Riya Kulkarni, CST '17, now a pediatrics resident in Phoenix who recently became his fiancé.

Returning to the Temple Health in mid-2021 for his five-year orthopedic surgery residency was a no-brainer. “I wanted to come back to help treat people who really need it,” he explained. “Temple does a good job treating every single patient the same way, regardless of their resources or healthcare options.”

PHOTO: JOSEPH V. LABOLITO



## Alexandra “Lexi” Jones, CST '18 Wave Whisperer

**O**ne Temple professor opened her eyes to the possibilities of a mathematics degree, another helped her land a research internship at the National Aeronautics and Space Administration (NASA). Now Alexandra “Lexi” Jones is combining her two passions: mathematics and understanding the Earth system.

Drawn to Temple because she liked the sound of its Honors Program, what also sparked her interest was access to plenty of STEM-related research opportunities.

As a PhD candidate in the MIT-Woods Hole Oceanographic Institution joint program in oceanography, Jones sometimes looks back at her blue-collar upbringing and marvels at the journey she’s taken.

“Anyone can be a scientist,” she said. “It’s who you meet along the way, and how they encourage you, that give you the confidence to make it a reality.”

At the end of Jones’ first semester, Professor Maria Lorenz sent her home with a book called *101 Careers in Mathematics*. From there, Jones started getting a clearer picture of her career options and switched her major from physics to mathematics. Then, as a sophomore, she conducted research on evolutionary genomics with Professor Rob Kulathinal, which led to an internship at NASA.

“During that internship, we took satellite data to study the ocean and I learned about phytoplankton,” said Jones. “Studying the behavior of phytoplankton really appealed to me because there’s a lot of physics, math and visualization involved.”

Jones’ current research looks at how ocean currents—which are experiencing the effects of climate change—shape where different kinds of phytoplankton live.

“I use a combination of satellite data, mathematical models and shipboard data where you actually go out and collect water samples,” she said. “I went on a monthlong ocean cruise where I took of some of the highest resolution DNA samples of phytoplankton ever taken before.”

Currently, in her department, she is mentoring undergraduates who need help in formulating their vision for the future, like she once did.