Research on Moraxella catarrhalis wins $10,000 grand prize challenge

DEC 8, 2021

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Research on Moraxella catarrhalis—an upper respiratory bacterium that exacerbates chronic obstructive pulmonary disease (COPD)—earned the top prize during the 2021 AMA Research Challenge. The research, lauded by judges for its longitudinal value and for being particularly worthwhile given COVID-19 respiratory complications, was conducted by Marielisa Cabrera-Sánchez and earned a $10,000 grand prize from sponsor Laurel Road.

Cabrera-Sanchez is a second-year medical student at the University of Puerto Rico School of Medicine. Her project was unanimously picked by three expert judges.

“It was so impressive,” said judge Sanjay Desai, MD, the AMA’s chief academic officer and group vice president of medical education. “You took on a question that has such large implications globally for so many patients in their quality of life. What was most impressive was the ability to take such sophisticated science and communicate it in such an accessible way too many of us who don’t perform that level of science.”

After getting news of her victory, Cabrera-Sánchez shared the credit with her mentors and colleagues.

“I had not done this type of research before,” she said. “Bio-informatic research was completely new to me. So they helped me to get acquainted with programs and to jump through any hoops I encountered along the way.”

Stiff competition

The AMA Research Challenge is the largest national, multispecialty research event for medical
students, residents and fellows, and international medical graduates. The challenge offers young and aspiring physicians a chance to showcase their research on a significant stage.

The virtual event had 1,100 entrants submit research poster abstracts, and 800 were selected to present posters. A semifinals round featured 50 presenters with the top scored research. From that group, a roster of five finalists has risen to the top. Cabrera-Sánchez was selected as the winner in an event broadcast on YouTube.

Her project focused on studying Moraxella catarrhalis, a bacterium that is commonly found in COPD patients, and exacerbates that underlying condition. Cabrera-Sánchez conducted the research that led to the creation of her contest winning poster board—“Genomic Adaptation of Moraxella catarrhalis During Persistence in the Airways of COPD patients”—during a summer internship at the University of Buffalo.

In a podcast recorded prior to the announcement of the results, Cabrera-Sánchez said she planned to use the winnings to help pay down medical student-loan debt.

Projects from the four other AMA Research Challenge finalists focused on an array of topics, such as trauma-informed care, e-cigarette use and lack of socio-economic diversity among medical students.

Each of the five finalists appeared on recent episodes of the AMA’s “Making the Rounds” podcast, which is available on Apple Podcasts, Spotify or anywhere podcasts are available. The episodes offer a glimpse of each of their work and future ambitions.