Winning formula: Why judges pick top medical research projects

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What does it take to win the AMA Research Challenge? Entrants to the upcoming 2021 event may be asking that question.

The deadline for abstract submissions for the 2021 AMA Research Challenge—the largest national, multi-specialty research event for medical students, residents and fellows, and international medical graduates—is July 21. If history repeats itself, it’s worth looking back at why judges lauded the projects that won the 2020 AMA Research Challenge.

Shamsh Shaikh, a third-year medical student at Boston University School of Medicine, and Victoria Danan, a medical student in her second year at Charles E. Schmidt College of Medicine at Florida Atlantic University, split the top honor.

Here’s a look at why the winning projects stood out, according to judges.

Asking the tough questions

Danan’s project—“Winning the Ventilator Lottery: A Comparison of Five Scarce Resource Allocation Protocols in the Midst of the COVID-19 Pandemic”—was touted by judges for its social science and ethics value.

The project looked at protocols that determined the distribution of ventilators. And there was no easy answer for who should get them. That stood out to Vineet Arora, MD, MAPP, one of the four judges for the 2020 AMA Research Challenge.

“You’ve done an excellent job at showing us that where you live and the protocol that is being used where you live yields different results,” said Dr. Arora, assistant dean for scholarship and discovery at the University of Chicago Pritzker School of Medicine. “So, we think about the protocol, does it have...
equity and do we have equity across the region? That’s an interesting application. Should we be standardizing these protocols? I commend you for bringing that forward and pushing us to think as a group, as a nation, of what we should be doing.”

According to judge Mira Irons, MD—the AMA’s chief health and science officer—taking a critical eye to procedure and protocol is a bedrock of effective research.

“The work that Victoria did when you think about it is so simple in some ways,” Dr. Irons said. “But it underscores the fact that we have to think about what our outcomes are and how our actions or recommendations will play out. This is what’s important to patients and families. It can help inform what we are seeing in the health care environment right now.”

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Shaikh’s poster—“The Effect of Pod-based E-cigarettes on Endothelial Cell Phenotype: Preliminary Results”—was honored for its value as translational research.

Shaikh’s research examined the components of e-cigarettes and the potential harm that the product can have. Results offered some startling data, concluding that Juul e-liquid components demonstrated acute toxicity in vascular endothelial cells.

“You do this kind of work to inform public policy,” said judge Clyde Yancy, MD, vice dean for diversity and inclusion at Northwestern’s Feinberg School of Medicine. “Rather than make a draconian statement of we don’t like this, we don’t want to do this, let it be driven by science.”

Dr. Irons echoed Dr. Yancy’s sentiments and added that Shaikh’s research set the table for future actions.

“It tells us about the importance of very basic science in answering a lot of the why questions because you have to understand the why before you can understand how you treat it,” she said.

Learn more about the winning projects from the 2020 AMA Research Challenge.