

Dr. Hotez on what feeds vaccine refusal: “Anti-science aggression”

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Peter Hotez, MD, PhD, knows firsthand about the dangers of what he refers to as anti-science aggression. Dr. Hotez has been openly mocked on cable TV news for his science-backed views on the COVID-19 pandemic—views that ultimately turned out to be true, such as his prediction that there would be an uptick of COVID-19 cases in the summer of 2021 across the Southern U.S. and into Florida.

As it turned out, the Delta variant of the SARS-CoV-2 virus strain led to a surge of COVID-19 cases in August in particular, with Florida accounting for more cases than any other state in the country.

Dr. Hotez noted that many of those cases could have been prevented—not to mention the thousands of deaths since authorization of the three safe and effective vaccines in the U.S. granted emergency use authorization for multiple COVID-19 vaccines—had it not been for vaccination hesitancy.

People can call the myths and misconceptions spread about COVID-19 vaccines misinformation, but Dr. Hotez views it as an opposition to science. He is dean of the National School of Tropical Medicine, and professor of pediatrics and molecular virology and microbiology at Baylor College of Medicine.

He talked about this “anti-science aggression” and what medical professionals can do to offset it as part of a virtual education session, “Medical misinformation gone viral: The science of misinformation spread and how to combat it,” held during the November 2021 AMA Section Meetings.

“It’s not fun for us to talk about, and as physicians and physician-scientists, it’s not something we’re trained to think about,” Dr. Hotez said, “but increasingly we have to come to terms that this is a major killer in the United States and we have to begin chipping away at the problem.”

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Using social media for good—and in moderation

Dr. Hotez, an AMA member, has more than 230,000 followers on Twitter @PeterHotez, and he sometimes shares with them the instances in which he’s been ridiculed for articulating where the evidence and the science are on the pandemic.

When he does so, however, Dr. Hotez also shares the data he relied on to formulate his initial viewpoints. The doctor’s goal is not to try and get in a back-and-forth or involve himself in name-calling. He views social media as a way to disseminate science-backed information.

“I use it to explain something I’ve written recently,” Dr. Hotez said, “and I will use it to defuse specific anti-vaccine statements or assertions.”

Dr. Hotez reiterated that it’s good for doctors and other health professionals to have a social media presence, but the various platforms need to be leveraged deliberately and strategically.

“If you’re going to do that public engagement, think about what your brand is and how you want to cultivate it,” he said. “What do you want to be known for? What problem are you solving?”

“Social media is a useful outlet, but just recognize it’s only one tool in the toolbox,” Dr. Hotez said. “Although it has purpose and it gets your brand out there, it’s not necessarily going to help you much in your career.”

Find out why collaboration is needed to end the spread of public health misinformation.

Focus on being empathetic

It’s important for medical students to learn how to communicate with the public as part of their training, Dr. Hotez said. While social media can be beneficial when trying to share information with a large population of people, it is also important to understand how to combat misinformation—or anti-science aggression— during individual encounters with patients and families.

The key, Dr. Hotez said, is to show compassion.

“When I hear about an individual refusing to get vaccinated or [doing] something that’s counter to their health, like taking a fake substitute, I try to have some sympathy and empathy with them, recognizing



that they're victims of this anti-science aggression," Dr. Hotez said. "Take that approach—rather than trying to shame someone or embarrass them. Try to be understanding and sympathetic, even though it can be tough at times."