Module 3 Video Class 3: Interview with Megan Molteni

Hi. Welcome back to the video portion of our course, Journalism in a pandemic: covering COVID-19 now and in the future. Now in module three and we are looking at the promise and the problems of vaccines against the Corona virus and treatments for the disease COVID. And right now we're going to talk Megan Molteni, who is a staff writer for the magazine Wired and has been covering vaccines and treatments. Megan thanks for joining this course.

Thanks for having me, Maryn.

So can we start by having you explain to our 8600 students, many of whom may not have seen Wired what it is that you do there?

Sure. So right now, I primarily write for the website Science Desk, reporting almost exclusively on the COVID-19 crisis. In pre-pandemic times, I covered a broader biotechnology beat. So with a focus on emerging technologies and genetic privacy. But in the current times, kind of, my job is to write two to three stories a week for the Web site, trying to help readers get their minds around kind of all the ways that COVID-19, might be impacting their lives and covering the science that is driving discoveries both kind of on the vaccine and treatment side, but also just in our general understanding of the disease and how it transmits between people and what it does inside people's bodies.

I think people who are taking this course are in a similar situation. Many of them may not have covered health and science before at all, and those who have have, like everyone else, pivoted to just doing COVID full time. So you have been in this right from the start, from the beginning in January. Out of all the stories you've done on the questions of vaccines and treatments, are there any of that particularly stand out to you?

I was actually pretty hesitant to write about vaccine development at the beginning. I think especially kind of in January and February when the outbreak was still really limited to mainland China. There wasn't as much going, there just wasn't much happening with vaccine development. It wasn't clear yet if this was going to become a global pandemic that would go on long enough that it would kind of justify the kind of billions of dollars and many years that would take to develop a safe and effective vaccine. So I kind of stayed out of it initially. But, you know, once it became clear that this that a vaccine was going to become necessary is kind of the way into some sort of semblance of a return to normal life.

Then I was at that point, I was, you know, a little bit in a position where we had to kind of write like everything we know about corona vaccine science and development up until this point. And so I was tasked with writing kind of a definitive Wired guide to progress on the front of vaccine. And it was supposed to be kind of like an intro to vaccine making 101. Like the kind of thing that, at that time, Tony Fauci was, you know, going on on TV and saying it's gonna be 12 to 18 months at least before we have a vaccine. And I think a lot of people were hearing that and not really sure why that was. And so I think the idea was, you know, this would be the kind of piece that someone was hearing that could turn to to understand why. So kind of it's going to go through over vaccine science, manufacturing and supply chains and the economics of vaccine development fraud, which are really different from treatments.

And I was initially pretty frustrated at the assignment because it seemed, very basic to me that, you know, the kind of stuff that I figured everyone already knew and had already been written about to death. But I, as I went about reporting it, I actually wound up talking to a vaccine researcher named Peter Hotez, who had developed a vaccine for SARS and learned that there is this potential wrinkle for developing vaccines against corona viruses, that has to do with the way some people's immune systems respond to the virus once they encounter it kind of in the wild after they've been vaccinated. And that was really I hadn't seen any of coverage of that anywhere. And so I was the really first time anyone had reported the potential for what's called immune enhancement with regard to these to developing a COVID-19 vaccine. And so then so so from a reporting standpoint, it was, you know, validating to kind of turn up something, something interesting, something new that I didn't know.

And then when the story came out, like it just went crazy on the Web site, I think it was getting like two hundred thousand reads a week. And the CEO of our publisher, Condé Nast, emailed me, which was the first time I knew he was like a real person and not just like a face on a screen to say that he'd been sharing the story with everyone in his family. So I think that was, for me, it was a very teachable moment that it's important. Every now and then to step outside your own brain and think about what information nonscientists and non-journalists really want and need to understand what's happening during these very fast moving, confusing time. So that was a, I think if I look back on the vaccine stories, that's kind of the one that stuck in my mind as being a teachable moment.

It's a monster story. It's really great. And we actually are recommending it as one of the readings, the required readings for this module. But I'm really curious now to know, since you hadn't done that topic much before all of this started, since this is a new area for you, and since these treatments and vaccines don't exist yet, how do you how do you find trustworthy sources in this? How do you know who is a really good person to talk to whose stuff is worth relaying to your readers?

It's definitely tricky, but I think one of the things that has been one of the things that actually helped me was having covered this from the middle of January. So I was already reaching out to people at that early time who I had identified through a lot of preprint that were coming online, as well as just digging through literature searches. And there are some biological online forums that I was also circulating in. And so when a number of these new treatments and vaccines came, came online, or at least not come online, it entered into clinical trials, you know, by the middle of February and March. There were already people who I had established relationships with and wasn't rely on having to rely on other news stories to to identify people.

But I think one of the things that was especially helpful with the treatments was that I looked at so early on before when things were still really in mainland China, I was following the clinical trial registries for what the researchers in China were looking at. And there was a real explosion of them on the middle of February. And it went from kind of one or two trials to a few dozen in a span of a few weeks. And so that was a really it was really challenging time to try to pass, you know, what was going on over there. But luckily, there were also a number of researchers who were also looking at that. And there, you know, I follow a few newsletters that people who were looking at that information. So so it was helpful to be on that early when that was happening in China, because a lot of those trials have now informed the things, the trials that have started in the US.

But I do think it is I think, you know, if you look at the W.H.O., the World Health Organization, they track how many of these treatments and drugs and vaccines are currently in development. And you could write one story a day for the next three months on everything that's been tested. There's so much going on. And I'm not, but that wouldn't necessarily be a good use of my time as a reporter, your time as a reporter or your readers to have this kind of unfiltered view of everything that's out there. So I think it's important to find voices who are knowledgeable kind of across the field. So review papers are a really good place to find people who who they have done meta literature or searches. They kind of have a sense for the value of the evidence that existed going into the pandemic. And so that's been a helpful resource to me.

Yeah. I mean, it it's a difficult time and and it's less and it comes down to if you can have a firm kind of backgrounding in how pharmaceutical development works generally. So what are the different stages of clinical trials? What do sample sizes like mean? What do and what do different end points represent? How strong is that statistical evidence one way or another? Like that's the kind of stuff that's going to allow signals to emerge from this noise because you really don't want to be relying on press releases or other kind of, you know, that's that's not going. There's companies are always going to put a, you know, a positive spin on whatever data they have. But that's not to say they're the only story that data can tell. I think it's always important to if you don't have that from understanding yourself at least to be buddies with a statistician or someone who can just e-mail and be like, what should I make of this?

So that those are really great points. And it brings up something else I wanted to ask you, which is that sure everyone wants to develop vaccines and treatments now because this is a terrible

problem afflicting the entire world and they will have huge reputational benefit if they do. But these are also companies that businesses and any one of them that gets to the finish line first is also going to have the lowest financial rewards. And we can, I think we can already see in some of the early stories about some of the treatments, for instance, that have been, that people are really jostling for financial position as well. So I'm wondering if you could talk a bit about how you are resisting the hype and being sure that as a reporter, you're not being used by a company to advance their agenda.

I think it's a really important question. You know, early in the early days, I had to do a lot of work to figure out who was even working on any of these kind of treatments. And early vaccines. And then there came this like flood of press releases and and the, and what's important for reporters, remember, is that, you know, companies are looking to use media coverage, as you say, toward a financial end. So we saw kind of over and over and over, as you know, a company would say, oh, we have a vaccine candidate. We're advancing to pre-clinical trials. We have a vaccine candidate. There would be these spikes in their stocks every time a story would come out and say, well, they're they're jumping in the race.

And what I learned from talking to a global vaccine, people who study kind of global vaccine development as a field in kind of a public health space is that this is something that happens every time that there's kind of a big, scary new human disease is that companies will use that kind of that fear and that moment to capitalize on, you know, on kind of that particular context to to drive up, yeah, like their valuation. And if you look at what happened with SARS, this was a good example for me. When, if you look at what happened with SARS in 2003, there were over 30 companies that jumped in with vaccine candidates and all of them saw something similar, like this was a huge boom to their kind of to their financial status.

And we now know that none of those vaccines ever reached fruition. And partially that was a function of the dynamics of that epidemic and that they came to a close very swiftly after trying to meet some intense changes in public health measures. But kind of the lesson there that I learned from talking to a number of people who studied this, the history of this epidemic was that a number of those vaccine developers weren't necessarily that serious about it, but it was it was an offer, an opportunity to take advantage of the moment. So I think that's always in the back of my head, as I look at some of these these candidates.

The other important thing to remember is that we're like one vaccine is not going to solve this. We're going to need many. And so it's not a bad thing if people if there is genuine investment and there is real money flowing into this race to find vaccines that are safe and effective because we will need more than one. If we're talking about having to inoculate the entire population of the planet. Right, that's billions of people. So it's not to say that we should be nihilistic about about it, but be, but being skeptical that the reality is that we need to have we need to have this many candidates in the development line to have to line up, to line up with even one that works.

And so I think what we try to do at Wired is focus less on the results of some of these trials and more on the process. So we have a real I think one of the ways that we're different from some other publications is we don't usually report just top line results from studies. What we're looking to do is understand ways that science is actually changing. The process of science is changing during this pandemic to speed the development of some of these vaccine candidates and treatments.

And how does the changing of that scientific process affect the quality of the data that we have to assess it? And is it something that's like a blip that we change, you know, now for this pandemic and we go back to normal life? Or is this like we've realized that there are ways to innovate these processes that we'll use as a lesson going forward? So those are the kinds of stories that were often looking for and we don't report every little readout that happens. So the study says, Remdesiver works. This study says, remind us of your doesn't like. We try to take a step back and say, well, what what's the quality of the data in this study? What's the quality of the data in this study? Why? How is the data released in this way? Was it released for a political reason or a or a financial spin and and trying to give people kind of the context they need to understand what those high level results mean.

So I really want to ask about politics, because it seems pretty clear that in some of the treatments being advanced in just the past couple of months, which of course feels like a century, that there has been a lot of political influence being exerted. And maybe that was true in other pandemics, maybe it was true during the early days of HIV. But none of us were reporting at the time. So, for instance, back in February, March, the French health minister made an announcement on Twitter that ibuprofen should not be used for the fevers of COVID and caused a real eruption in infectious disease areas as some company countries responded to the fact that up and others did not. And then, of course, there's the enormous enthusiasm for hydroxychloroquine, which originates in France, but has really, really been pushed by the American White House to the point that an important American public health official may have lost his job because he didn't go in with the White House's push to advance. So can you talk a bit about how you are handling this political influence in your stories or are you reporting on that? Are you taking note of it when you write or are you keeping in mind that it might get in the way of trials? How does all this work?

Well, I definitely, as someone who's primarily a science reporter, I find it a little frustrating personally because it is now something that we have to consider in our coverage. And I would say it the what's going on politically has and kind of also in the kind of social media sphere, because we also have it's not just presidents, but it's, you know, tech company leaders tweeting things out that we know is also influencing what people are searching for Google, what people are buying and their behavior. So I think the way we've been thinking about it is that context is it is important and needs to be included in the stories. But it's at least for myself, it's kind of a part of a story as opposed to the whole the whole thing. We do, I do have other colleagues who focus, you know, who write about misinformation as their job, their robot misinformation for the 2016 election. And now they're applying that to all the misinformation that's coming out of this pandemic. So they're a little more equipped to grapple with that.

But it is something that we can't ignore because the, the reality is that science doesn't happen in a vacuum. And so if you have researchers in hot spots trying to run randomized blind placebo controlled clinical trials of a drug and their pool of patients that they could potentially use are going out and ordering hydroxychloroquine or getting it, you know, trying to get it from their doctor or do it you're really shrinking that pool of potential patients that you can study. And so the downstream effect is that we're running the risk by politicians trying to offer solutions and appear that things are more in control. And this is going better than we want it to be, you know, based on kind of limited evidence we're actually doing is downstream crippling our ability to come up with robust answers to what works and what doesn't.

And the thing that people worry about is that we're gonna get through, you know, the worst of this pandemic and we're not going to have any real end or the source of this first wave. We're not going to be real answers about what actually works for like secondary waves that come in the future. And that's I think that's one place where we do need to continue to put the spotlight on the ways in which, you know, political manipulations of the science or kind of the desire by politicians to have easy answers when there aren't any, you know, influence the ability to to do good science.

That's the really great point that that political pressure could actually foil the science. I don't think I'd thought of it in quite that way. So the last question that I want to ask you more easily, more than half of the students taking this course are from low and middle income countries. Many of those countries there's no pharma companies there. There may be pharma manufacturing plants, but they're not going to be countries that have a big footprint in the treatment or manufacturing space. And so I'm wondering what you're hearing about any plans to to be sure that vaccine distribution in particular is done equitably, that the global south is equally taken care of? Is this something that these plans that you are looking to report on or do you have any thoughts about what people should be doing to try to cover that aspect of the story?

Yeah, I think it is an absolutely vital kind of next. You know, as we have vaccine candidates that are moving, you know, we'd have the first four that have moved into phase two trials. This is becoming a much more urgent question. And I would say that we're I think we're experiencing a real rift in the kind of strategies that are being put forward. So we have folks like the W.H.O. and Bill Gates who said, you know, we we need to be thinking about where is the epidemic going to be at the time when we have a vaccine candidate become available. And how do we build up

manufacturing capacity in those places ahead of time so that when it becomes available, it can immediately go to where we anticipate the epidemic being at that point.

At the same time, we're hearing that the White House has a operation kind of called Operation Work Speed that is supercharging vaccine development in the US. They are not looking at any candidates not developed in the US, and they are only looking at ramping up manufacturing for vaccine doses that will stay in the US and be prioritized to US citizens. So I think we're at a moment where we can see where these decisions are going to start to really matter. You know, four months from now, because manufacturing takes a long time to get these facilities set up, to buy the capital investment, to make to making stuff out these places. And so the decisions that are getting made now about where that happens, I think are going to be absolutely vital. And so I think a huge responsibility for reporters right now is asking those questions.

So I you know, whenever I am talking to a company that's developing a vaccine, you know, the questions that I ask are, you know, how many doses are you on track to have by these dates? ~~Where are your men?~~ Where is your manufacturing happening? What's your strategy for working with governments when you have these limited doses for rolling out who gets it? And you know, what kind of formulations are these vaccines gonna be in? Because some vaccine needs to be refrigerated. You know, that's gonna be less and less accessible to countries that have more fragile health care infrastructures. And so, you know, making sure that that those kind of questions, you know, are just as important as to like. Does it work or not? I think it's going to really I think all reporters should be thinking about that as we move into this next phase.

I have a good colleague of mine, Adam Rogers, just wrote a story this week about all the potential strategies for how you would administer limited doses. And there are a lot of ideas out there right now. And so, you know, some say it should go to wherever the epidemic is raging at the time it becomes available. Some say it should go to the most vulnerable populations to allow people who've been shot up in their homes for who knows how long that, you know, people who have hypertension or they're older. But we also know that some vaccines don't work as well in older populations. So would you know then mostly give it to the people who will work the best for them? Some say there should be an echo, an, you know, an equitable piece of like we know that this is hitting populations of African-Americans and Latino Americans in the US much harder. Should they? Should there be some sort of effort to make sure that they get vaccines first? Because they've already handled they've already taken the brunt of of this disease, at least at least in the US. Should it go to health care workers because they're the ones who are have the biggest exposure. So there are a lot of different ideas. And I think it will be important to continue to report and keep pressure on the importance of reviving it at answers. Because I think one thing that people aren't necessarily grasping is that having a vaccine that works is totally different than having a vaccine that everyone can have. Really. I think that's really what people should work with reporters should be focusing on as we go forward here.

That's great. It's really great advice. Thank you so much for sharing all those thoughts and strategies. And thanks for joining our course.

Thanks so much for having me Maryn.