that they have a seat at the decision-making table that they didn't have before. Successful conservation in the future will engage with communities in this kind of way.

DOMINIQUE BROSSARD Show that you care

Dominique Brossard is professor of lifesciences communication at the University of Wisconsin–Madison, where she studies public perceptions of issues such as genetically modified food. She has taken part in two Arthur M. Sackler colloquia on the science of science communication, and contributed to the resulting publications from the National Academy of Sciences.

It is important to know that science communication can backfire — particularly when you're talking about controversial issues, where there is a lot at stake because of ethical, social or legal implications. As a result, science can trigger emotional, value-laden reactions from different groups. Therefore, personal feelings come into play when discussing specific scientific issues — from stem cells and genetic engineering to climate change.

Science can be politicized. And that's OK. That is the reality and it's complicated. The things that we find important as scientists are often not the things that most people care about. We need to realize that it's often impossible to change views when they are entrenched. It's most important to seek middle ground. You are not going to convince people who hold extreme beliefs, but you can try to find a space where you can stand together.

The most powerful way to engage audiences is at the grass-roots level; yet on social media, academics often exist in an echo chamber with like-minded followers. So, if you use social media, try to connect with people who think differently from you.

The same goes for writing opinion pieces. Think about your audience, and how you might frame a piece for *The New York Times*, compared with how you would pitch the same piece for, say, the *Milwaukee Journal Sentinel*, a regional Wisconsin newspaper.

Think about ways to frame your insights, taking the psychology of risk into account. For example, in my experience, people are much more receptive to public-health issues than they are to environmental ones, such as flooding in Indonesia or endangered polar bears, because public health is more relevant to their lives.

INTERVIEWS BY VIRGINIA GEWIN

These interviews have been edited for length and clarity.

TURNING POINT Advocacy ambassador

Karen Ring is a stem-cell researcher turned website and social-media manager for the California Institute for Regenerative Medicine (CIRM) in Oakland. As the threat of cuts to science funding sweeps the globe, she is encouraging scientists to advocate for their research.

What was your reaction to the election of Donald Trump as US president?

I started to read articles about what it would mean for the future of science. I found some of his pre-election comments about science troubling, including criticism of the US National Institutes of Health and his belief that climate change is a hoax. This seemed like a wake-up call for the scientific community. I tweeted, "Now more than ever #scientists need to speak out about the importance of funding scientific research! Share hashtag #ImWithScience."

How did people respond?

The post has been re-tweeted hundreds of times. In October 2016, some colleagues and I started an online @SciParty group to discuss how scientists can do public outreach better. But after the election, we realized that we have to find better ways to connect with people who either don't understand science or are sceptical of it.

What happened with the first @SciParty exchange after the election?

We discussed what the Trump presidency might mean for US science communication and funding. We also discussed the potential for integrating science-communication training into graduate programmes. One participant suggested that scientists listen more and talk less. Scientists often get caught up in how exciting their research is to them, but forget the big picture. We need to tailor communications to specific audiences.

Did people from outside the United States participate?

Yes. Funding cuts are happening all over the world. We had people from Evidence for Democracy, a Canadian organization established during former Prime Minister Steven Harper's tenure. They suggested that it's important to be political without being partisan. We're all working towards the same thing — the funding necessary to maintain scientific progress.

What topics will @SciParty tackle in future? Upcoming parties will focus on public



sentiment about climate change and animal biotechnology. We want to intermix topics focused on how to improve science communication with discussions that concentrate on a particular area of science.

What do scientists want to know most during these discussions?

Mainly, how to improve science communication. People are interested in how to share science through different avenues, such as blogs, art and videos. Many participants have stressed coming up with a mission statement to make sure there is a concrete goal for efforts.

Are you finding synergies with other groups on social media?

Yes, we are trying to collaborate with others to share our audiences and get to know how we can help each other through Twitter and Instagram. There are groups such as @IAmSciArt, @realscientists and @womenofsci.

Do stem-cell scientists have specific concerns? A lot of researchers don't know what to expect. Trump hasn't spoken a lot about his sciencefunding plans, but his past statements are not encouraging. Every state is different. California is lucky. When former President George W. Bush banned federal funding for embryonic stem-cell research in 2004, the CIRM formed, with US\$3 billion in funding. We won't be affected if there is another federal-funding ban on embryonic stem-cell research. But that's not the case for other states. And there are many others that do important research and would be affected. It's important for scientists to speak out, get involved and help to motivate the incoming administration.

This interview has been edited for length and clarity.

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