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A (Zoom) Call to Public Service: My Year as a Congressional Fellow

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For the past year, I have had the privilege to serve as the 2020–2021 TMS/MRS Congressional Science and Engineering Fellow in the office of U.S. Senator Sherrod Brown of Ohio. While I experienced most of my fellowship virtually, it was still eventful to say the least. When I accepted this position in March 2020, COVID-19 closures had just begun, and I never imagined what all would unfold. During my fellowship, I had a front row seat to a change in administration, a flip in Senate control, the sprint to fill the seat of the late Supreme Court Justice Ruth Bader Ginsburg, a global pandemic, an economic crisis, and a violent insurrection on our Capitol. Unprecedented—the word of the year.

Our life experiences shape who we are, and I likely could never put on paper all the ways I have grown through this fellowship. In my placement office, I have been fortunate to serve alongside a staff, both in D.C. and in Ohio, who are among the most dedicated, giving, and effective people I have met. Working with staff, outside experts, and constituents on health and education issues during a public health emergency that will have lasting repercussions on both made for a highly rewarding fellowship, and I hope that I have made a difference.

From the Bench to the Hill

I knew I wanted to be an engineer at 15. I was good at math and science, I had people who believed in me, and I wanted to use my skills to help others. I went into biomaterials and tissue engineering and then began exploring science policy in graduate school.

While in graduate school I suffered a back injury. I refused to go to the emergency room—I didn't want to figure out how to pay the bills on a grad student stipend. I suffered for days. And then I lost feeling in my leg and foot.

I still ended up at the emergency room, in surgery, and in physical therapy for the better part of a year. If I wasn't worried about the cost, could this have been avoided? If I had sought treatment sooner, would I still be able to feel all my limbs? Maybe.

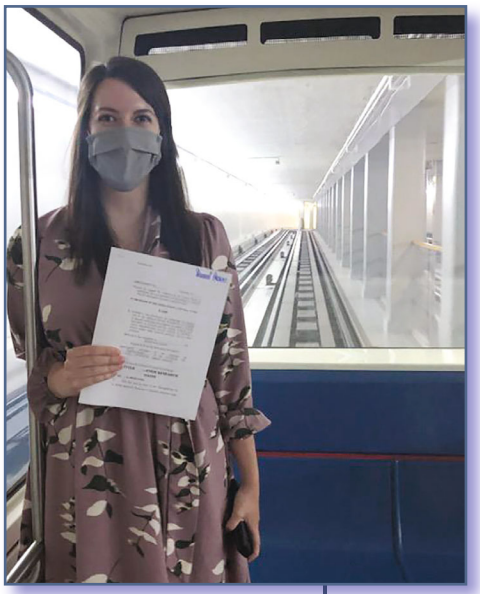
I had spent years at the bench and in surgical suites conducting translational biomedical research dedicated to improving the lives of patients, but it became all too personal that the barriers to real people getting real care are often limiting well before we are limited by medical advancement.

I decided there was more I could do.

When I started my fellowship year in fall 2020, the pandemic was surging, and a comprehensive, federal strategy was lacking. I worked to track the pandemic—rates, demographics, emerging variants—and met with those on the ground to assess their needs and determine how, through oversight and policy, we could get them the help they needed.

As late-stage vaccine trial data came out showing safe and highly efficacious profiles and vaccines began earning emergency use authorization, there was a sense of hope. With my background, I was able to help interpret the vaccine technology and data surrounding the vaccine trials. Pushing for effective and equitable vaccine distribution, access, and uptake became my next big focus.

In a legislative push to support significant federal investment in research for national security and global competitiveness, I was able to leverage my experience as a first-generation college graduate and female engineer in meetings with stakeholders, committees, and agencies to help develop and push for provisions to expand



Malara takes the Senate train to file an amendment at the Capitol.

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and diversify the science, engineering, technology, and math (STEM) pipeline and to make STEM a more inclusive environment.

We are in a state of overlapping crises, and the need is more far-reaching than the public health emergency. Some of the most important government work does not always make the headlines. Policy gives you the tools and the venue to affect change in people's everyday lives. I have watched my colleagues give their all, all the while handling their own lives during a pandemic. Their commitment to one another, to the constituents they serve, to this country, and to justice is something that will stick with me always. I was blessed to learn from my colleagues and honored to serve alongside them.

"In generosity and helping others, be like a river" —Rumi

In record time we have seen safe and highly effective COVID-19 vaccines developed, tested, administered, and enter the forefront of our strategy to fight back against the pandemic. This, along with innovation and global competitiveness legislation moving through Congress and the director of the Office of Science and Technology Policy being elevated to a Cabinet-level position, show that now is the perfect time to get involved in science policy. Weigh in with your elected officials, collaborate with other experts and disseminate your knowledge to policymakers, or consider a run for office yourself. Beyond federal, state, and local science policy, I encourage you to take a look at your university, your workplace, your field. What can you do to help others? How can you push for change?

My time on the Hill, while experienced mostly from home, has been more than I had pictured. More challenging and more rewarding, and I am more inspired than ever that change is coming. As scientists we have not just a role, but a responsibility, to work towards a better future.

TMS Returns to D.C., Virtually

TMS leaders participated in virtual Congressional visits to discuss key legislative priorities for the Society and its members on May 26 and June 3, 2021. Participants included Ellen Cerreta, 2021 TMS President; Tom Battle, 2020 TMS President; Eric Brown, TMS Public and Governmental Affairs Director; and James Robinson, TMS Executive Director. These delegates met virtually with staffers from the offices of Representative Don Beyer (D-VA), Senator Richard Blumenthal (D-CT), Representative Jamaal Bowman (D-NY), Senator Raphael Warnock (D-GA), and Patrick Looney, Deputy Director of the U.S. Office of Science and Technology Policy (OSTP) for Physical Sciences and Engineering, as well as with staff leads of subcommittees of the U.S. House of Representatives Committee on Science, Space, & Technology.

The groups discussed TMS legislative priorities, including:

- **Endless Frontier Act (Now U.S. Innovation and Competition Act):** TMS supports the main portions of the Endless Frontier Act, which would increase U.S. investments in science and technology innovation and strengthen the economy and competitiveness. TMS stresses the need to retain the proposed significant investments in the National Science Foundation and establish a new Directorate for Technology and Innovation. TMS also emphasizes retention to extend the STEM workforce pipeline and have workers educated and work ready to realize the aspirations of the Endless Frontier Act. Note, however, that TMS does not support some of the more recently added pieces of the legislation that pertain to public access to federal research.
- **Materials Research and Development and Hard Infrastructure:** TMS supports strengthening materials R&D because investing in the next generation of physical infrastructure will enhance the American quality of life, increase public safety, and promote the public welfare. Increased investment in materials technology is critical to national security, American economic competitiveness on the global stage, and our response to climate change. Investing in infrastructure and materials technology includes ongoing protection of our economic prosperity and security. Innovations in infrastructure safety and reliability, including the non-destructive evaluation of roads and bridges and embedded structural health monitoring technology, should be part of America's infrastructure plan.

To learn more about current legislative priorities for TMS, visit the Current Issues section of the Public & Governmental Affairs website at www.tms.org/CurrentIssues. And for added perspective on the 2021 Congressional visits, read Jim Robinson's "In the Final Analysis" in the August 2021 issue of *JOM*.