

# TMS: A Link to Our Past; A Bridge to Our Future

Kevin J. Hemker, 2018 TMS President

I, like many, view TMS as my home society and going to the TMS annual meeting as a kind of professional family reunion, where we share a materials bond, interactions occur across generations, and it is hard to move without bumping into old friends and making new ones.

Alex Haley once said, “*Family is link to our past, bridge to our future,*” and so it is with TMS. It seems like only yesterday that I was a fledgling undergraduate attending my first TMS meeting, tightening my tie, and waiting in the hall to meet the person who I hoped would become my doctoral advisor. The year was 1984, TMS was celebrating the 50th anniversary of dislocations, and Bill Nix became not only my advisor but a life-long friend and mentor. Fast forward a few decades and I am delighted to be able to attend TMS meetings with my own students and cheer them on as they give their first talks, make friends, join committees, organize symposia, become TMS Young Leaders, and bring their own students into the TMS family.

Yearly gatherings at the TMS annual meeting and Materials Science & Technology (MS&T) are the heart and soul of our society, but TMS staff and volunteer leaders are actively shaping, defining, and promoting the future of our profession year-round. With that in mind, when I am asked what I want to accomplish during my year as TMS president, I am reminded that whatever we achieve will be the result of collaborative teamwork.

Paradoxically, my vision for TMS involves both staying the course and pursuing opportunities for change. There is much that TMS does right and that its members desire in a professional society. Dynamic meetings, a tangible sense

of community, a tradition of volunteer engagement and ownership, and a diverse and informed perspective on the interplay of science and technology are all tremendously valuable TMS hallmarks. The desire to protect them is widespread and broadly shared, and that is how it should be. Nevertheless, the world is changing around us and TMS must vigorously seek out opportunities to significantly enhance and improve the overall experience that it offers its members.

Alan H. Epstein, vice president, Technology and Environment, Pratt & Whitney, once told me that when he was an academic at the Massachusetts Institute of Technology, he worked on *problems*. When he moved to industry, he learned that *problems* are called *opportunities*. TMS must strive to be an organization that finds opportunities where others see problems. We cannot afford to ignore the changes that are occurring around us. Changes in our key industries, the advancement of science and technology, the manufacturing of materials, the creation of digital datasets, the education of our students, and the ways that we communicate and interact with each other are all fast becoming the new reality.

As a sailor, I know that boats sail truest with a steady hand on the tiller, constant attention to detail, and a series of small adjustments. So it is with organizations, where well thought-out strategic plans are preferable to hasty tactical adjustments. The TMS Strategic Plan emphasizes promoting diversity within our society, accelerating industrial engagement, thinking globally, and addressing pressing societal needs related to energy, the environment and innovation. It can be read on the TMS website, but I would like in this article to



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focus on the need for increased inclusivity, because I believe we must fully engage and empower all of our members to capitalize on the opportunities that lie before us.

The TMS Board of Directors has been actively reviewing our selection processes for Society officers and Fellows, but we need widespread engagement at all levels. Did you realize that TMS symposia and workshops are organized from the bottom up in our technical committees? TMS has

three dozen such committees, if you are not a member of one, please join one. If you have never organized a symposium, ask a senior colleague to teach you how. Veteran TMS members, please invite a junior member to join a committee or to help you co-organize a symposium. The TMS technical committees are housed in five divisions that offer expanded opportunities for engagement and provide each member with a home base within the greater Society. The TMS Board of Directors, TMS staff, and board-level committees play an important role in assuring that the overall impact of the Society is greater than the sum of its parts. TMS is best served when all of these bodies reflect the professional, cultural, and demographic diversity of our entire membership.

Since this is supposed to be an introduction, let me close with a few words about myself. I view life as a series of adventures. I grew up in northwest Ohio, walked out of the cornfields to attend the University of Cincinnati, ventured west to Stanford for graduate school, and then east to Switzerland for a three-year postdoc. For the past 25 years, I have had the privilege of being a professor of mechanical engineering, materials science and engineering, and earth and planetary sciences at Johns Hopkins University. My wife, Dr. Maria Oliva-Hemker, was exiled from Cuba when she was young and is now the Stermer Family Professor of Pediatric Inflammatory Bowel Disease and Director of Pediatric Gastroenterology, Hepatology, and Nutrition at the Johns Hopkins University School of Medicine. We have two sons; James who is a freshman at Stanford University and Michael, an 8th grader at the Gilman School in Baltimore.

I am also proud of my academic family tree, and in particular, the branch that is growing at Johns Hopkins. Working with so many talented young scientists and witnessing the digital revolution that we are immersed in, I am convinced that there has never been a better time to be a materials professional. Thomas Freedman once described the global energy crisis as, *"The opportunity of a lifetime disguised as a series of unsolvable problems"*. What more could an engineering society that sees *problems* as *opportunities* ask for?



## 2018 TMS Board of Directors

Kevin J. Hemker was officially installed as the 2018 TMS President at the TMS 2018 Annual Meeting & Exhibition in March. The following individuals join him on the TMS Board of Directors to lead the Society in the coming year:

### TMS President

Kevin Hemker  
Professor and Chair,  
Johns Hopkins University

### TMS Past President

David DeYoung  
Director of R&D, Breakthrough  
Technology, Alcoa

### TMS Vice President

James Foley  
Scientist, Los Alamos  
National Laboratory

### TMS Financial Planning Officer

Adrian Deneys  
Business Development  
Manager, Praxair, Inc.

### TMS Director, Professional Development

Chester Van Tyne  
Professor Emeritus, Colorado  
School of Mines

### TMS Director/Chair, Content Development & Dissemination

Michele Manuel  
Professor, University of Florida

### TMS Director/Chair, Member & Student Development

Amy Clarke  
Associate Professor, Colorado  
School of Mines

### TMS Director/Chair, Programming

Brad Boyce  
Senior Member for the Technical  
Staff, Sandia  
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### TMS Director/Chair, Public & Governmental Affairs

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Assistant Professor, Purdue  
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### TMS Director/Chair, Extraction & Processing Division

Cynthia Belt  
Energy Management  
Consultant, Metals Energy  
Management LLC

### TMS Director/Chair, Functional Materials Division

Raymundo Arroyave  
Professor, Texas A&M University

### TMS Director/Chair, Light Metals Division

Alan Luo  
Professor & Director,  
Ohio State University

### TMS Director/Chair, Materials Processing & Manufacturing Division

Corbett Battaile  
Principal Member, Technical  
Staff, Sandia National  
Laboratories

### TMS Director/Chair, Structural Materials Division

Ellen Cerreta  
Deputy Division Leader, Los  
Alamos National Laboratory

### TMS Secretary/Executive Director

James Robinson