



## new and noteworthy at TMS

### TMS Launches MGI Ambassador Program



Charles H. Ward

TMS is establishing a network of respected materials scientists and engineers who can serve as regional points of contact for public outreach on the Materials Genome Initiative (MGI), advanced by the White House Office of Science and Technology Policy (OSTP). Known as the TMS MGI Ambassador Program, the project is the latest addition to TMS's rapidly developing portfolio of initiatives that support accelerating the cost-effective development and manufacture of advanced materials.

The MGI is a multi-agency effort focused on developing an innovation infrastructure for materials discovery and deployment. With funding drawn from the National Science Foundation, National Institute of Standards and Technology (NIST), and the Departments of Defense and Commerce, MGI supports the development of computational tools, software, new methods for material characterization, and open standards and databases that will make the process of advanced materials development faster and less expensive. OSTP highlighted the TMS MGI Ambassador Program as a notable effort as part of its public celebration of MGI's third anniversary in June.

"MGI aims to speed the discovery and transition of materials technologies at a much lower cost. Figuring out how one can contribute to this goal can be daunting and varies from material-to-material and industry-to-industry," said Charles H. Ward, Chair of the TMS Materials Innovation Committee that will be overseeing the TMS MGI Ambassador Program. "This new program provides a valuable resource for people and organizations who want to sort through these complexities by consulting experts who are recognized leaders in applying the tenets of MGI. It will also

provide TMS members greater insight and understanding on how they can best connect to the MGI effort, while keeping TMS at the forefront of this important national initiative."

At the core of the TMS MGI Ambassador Program are approximately ten volunteer experts who are conversant about MGI and its importance and impact on the materials community and overall quality of life in the United States. After receiving nominations through the TMS website, the Materials Innovation Committee has developed a roster of ambassadors that ensures a balance of industries, materials expertise, and geographic representation. A future issue of *JOM* will publish the final roster of TMS MGI Ambassadors, along with information on the process for submitting questions.

"The beauty of the MGI is that its benefits extend throughout our society, from helping the average person on the street, to strengthening our economy, to achieving our national policy objectives in a very synergistic, beneficial, cooperative manner," said Kevin Anderson, a volunteer member of the working group that helped develop the TMS MGI Ambassador program. "The TMS MGI Ambassador program will communicate directly with people so they appreciate the importance of this initiative and how it impacts their daily lives."

"TMS embraces the development of a new innovation infrastructure to unify and streamline materials design and manufacturing processes. Indeed, this is a focal point of our strategic plan," added James J. Robinson, TMS Executive Director. "We have had great success in convening the materials community around these issues through our publications, roadmapping studies, summits, technical programs, and other initiatives. The materials field knows

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**—Charles H. Ward,  
Chair, TMS  
Materials Innovation  
Committee**

and appreciates these contributions well. We now seek to educate the broader science and engineering community, as well as the public sector, by raising the general awareness and understanding of how materials and manufacturing innovation collaboratively lift up both our technological innovation and quality of life. Through the efforts of the TMS Materials Innovation Committee, TMS is pleased to be working with our society membership on implementing the TMS MGI Ambassador Program as a means of accomplishing this very important outreach.”

The MGI Ambassador Program joins several other new major undertakings announced by TMS this past year in response to growing member interest and activity in integrating materials and manufacturing innovations. These include:

#### **The First TMS Summit on Integrated Manufacturing and Materials Innovations**

Taking place November 15–19, 2015, in Pittsburgh, Pennsylvania, the summit will examine solutions for applications in both established and emerging industries, providing a valuable forum for information exchange and networking among members of various manufacturing-related institutes and consortia. In addition to sharing and assessing materials-related breakthroughs, the summit will build

on opportunities to roadmap key areas for future development. It will be held every two years.

#### **Technical Roadmapping**

TMS is leading a new roadmapping study on behalf of the National Institute of Standards and Technology Material Measurement Laboratory to develop recommendations for critical steps and pathways needed to connect computational materials models and simulations across various length scales in an accurate, automated fashion. The need for these types of linkages across different length scales and stages of integrated computational materials engineering (ICME)-accelerated product development cycles was identified as a significant barrier to broader ICME implementation in the 2013 TMS study, *Implementing ICME in the Aerospace, Automotive, and Maritime Industries*. TMS has already convened a core team of internationally recognized experts and will be reaching out to others over the next several months for study content and review. The multiscale roadmapping study is on track to be unveiled at the TMS 3rd World Congress on ICME (ICME 2015), May 31–June 4, 2015, in Colorado Springs, Colorado. At that time, the full report will be made available for free download on the TMS website.

## **Nominate Your Favorite Materials Fiction for an Upcoming *JOM* Project**

It's time to share your favorite reading material with your TMS colleagues! *JOM* is compiling nominations for the greatest works of fiction that prominently feature some aspect of minerals, metals or materials science and engineering.

So, if you were more intrigued by the properties of Rearden Metal in *Atlas Shrugged* than Ayn Rand's philosophical meditations, this countdown is for you! Don't miss your chance to let the materials world know that you found the technical details in Michael Crichton's *Airframe* more satisfying than the plot or figured out how Valyrian steel is really made while reading George R.R. Martin's *Game of*

*Thrones*.

Submit your nominations today through any of TMS's social media outlets—Facebook, LinkedIn, and Twitter. You can also e-mail your nominations directly to Lynne Robinson at [lrobinson@tms.org](mailto:lrobinson@tms.org). Make sure you include the name of the novel or short story you are nominating, as well as the author and a sentence or two as to why you feel that it deserves a spot in the pantheon of great material fiction works. *JOM* will then publish the list of nominees and give TMS members an opportunity to vote for the top ten.

The deadline for nominations is Friday, October 31.