

## Member News



Updates on friends and colleagues in the materials community

### Tresa Pollock Selected for Distinguished Lectureship



Tresa Pollock

Tresa Pollock, Alcoa Professor of Materials and Chair, Materials Department, University of California at Santa Barbara, has been selected by the TMS Board of Directors and the Board of Trustees of ASM International to present the 2013 Distinguished Lectureship in Materials and Society. She will deliver her lecture at the Materials Science & Technology 2013 Conference and Exhibition (MS&T'13), scheduled for October 27–31 in Montréal, Canada. The goal of the lecture is to provide an overview of how technology and society are affected by developments in materials science and engineering.

Pollock has more than 25 years of university and industry experience and is recognized for her leading research on high-temperature materials, including alloys for aircraft turbine engines. Her current research focuses on structural materials and coatings, the use of ultrafast lasers for materials diagnostics, and development of models for integrated computational materials engineering (ICME) efforts.

Pollock was president of TMS in 2005, inducted as a TMS Fellow in 2009, and is associate editor of *Metalurgical and Materials Transactions*. Elected to the U.S. National Academy of Engineering in 2005, Pollock was chair of the committee that produced the study released by the National Research Council in 2008 that initially identified the tremendous potential of ICME. She is currently leading the aerospace study team for the TMS ICME Implementation Study, supported by the U.S. Department of Defense, the U.S. Department of Energy, and the National Science Foundation.

### Edward Herderick to Serve as TMS P&GA Director



Edward Herderick

Due to commitments of a new sabbatical opportunity, Kevin Hemker, Professor and Alonzo G. Decker Chair of Mechanical Engineering, Johns Hopkins University, stepped down from his TMS Board position of Public & Governmental Affairs director one year early. The TMS Board has approved the appointment of Edward D. Herderick, Vice Chair, TMS Public & Governmental Affairs Committee, to serve out the remainder of Hemker's term.

Herderick is an applications engineer at EWI, Columbus, Ohio. Working in the materials group, he provides

expertise on ceramics and fundamental materials science to clients in such industries as consumer electronics, aerospace, and energy production. Herderick served as the 2009–2010 TMS/The American Ceramic Society/Materials Research Society Congressional Science and Engineering Fellow, working on Capitol Hill in the office of U.S. Senator Sherrod Brown as a special legislative assistant on technology and energy issues. He earned his Ph.D., M.S., and B.S. in materials science and engineering from The Ohio State University.

Hemker was serving his second term as the Public & Governmental Affairs director. The TMS Board thanks him for his service and leadership in guiding the committee to new initiatives and expanded legislative activities.

### Check Out the TMS Member Library

More than 1,100 papers spanning 50 years of scholarship and information are now available as a new member benefit in the TMS Member Library. This online compendium consolidates articles from books and proceedings previously available through the TMS On Reserve archive of historic articles from the American Institute of Mining, Metallurgy, and Petroleum Engineers (AIME), the TMS Knowledge Resource Center, and other digital locations into one, easy-to-use resource. It is accessible via the TMS Members-Only website.

The enhanced functionality of the new library enables members to search its collection of historical technical documents by title keyword, author, or publication dates. Resources can also be viewed alphabetically. All content can be downloaded at no charge by TMS members in one easy step. To begin using the TMS Member Library, log on to the TMS Members Only website at <http://members.tms.org/MEMhome.aspx> and navigate to the Member Reading Room.





**TMS Member Profiles**

**Meet a Member: Julia Greer Examines Solutions to the Work/Life Balance Equation**

**By Lynne Robinson**

Music is the creative oasis where Julia Greer retreats and recharges after a day packed with teaching, pursuing scientific discovery, and raising her two young daughters. An accomplished concert pianist, Greer, Assistant Professor, Materials Science and Mechanics, California Institute of Technology (Caltech), notes, “[Practicing piano] is just something that I have been doing since I was six years old, and it represents an important part of my daily life. It’s a little routine that allows me to be more creative in what I do.”

Carving out time to put perspective on the myriad responsibilities juggled by many young professionals is among the points that Greer plans to make in her Young Leader Tutorial Luncheon Lecture—“A Scientist, a Parent, a Teacher, a Mentor . . . How to Balance it All?”—on March 5 at the TMS 2013 Annual Meeting and Exhibition in San Antonio, Texas. “There will be plenty of scientific talks all week long at the conference,” she said. “For the Young Leaders Luncheon, I thought what might be more relevant would be to share some of my own discoveries about how to combine a high-intensity academia job with family life and NOT go insane.”

Greer’s responsibilities at Caltech encompass leading a 15 to 20 person research group, teaching classes, developing proposals, and mentoring graduate students. Her contributions to her field have been recognized by “early career” awards from organizations such as NASA, the National Science Foundation, the Department of Energy, and the Defense Advanced Research Projects Agency (DARPA). She describes her research interests as “first unraveling the unique phenomena offered by nanoscale solids, especially in their mechanical properties and deformation, and subsequently utilizing these properties towards



(Above, from left): Greer with her family, Ayla, 5, Annika, 2½, and her husband, Frank. (Right): Greer displays super-lightweight, radiation- and damage-tolerant micro-trusses developed in the research laboratory that she leads at Caltech.

creating macroscale materials with unprecedented properties.” Once she leaves Caltech at the end of the work day, Greer switches her intense focus to the equally unique phenomena of nurturing two small children.

Greer notes that while the experience of juggling career with family demands has honed her time management skills, she still finds that “there are not enough hours in the day for me to fully dedicate my attention to everything. I have to prioritize and only choose to work and do things that are most important or most rewarding.”

Greer said that a key factor in striking a healthy equilibrium in her life is the support of her husband, Frank, Manager and Senior Technical Staff Member at Caltech’s Jet Propulsion Laboratory. “When you operate as a team, it really helps with work/life balance,” she said. “Children thrive in an environment when they are presented with a unified front and opinion.”

Based on experience and observation, Greer plans to present various

examples of effective and ineffective approaches to managing a demanding, multi-faceted lifestyle during her Young Leader Lecture. While situations and issues may vary from person to person, Greer believes that certain universal principles hold true.

“A lot of us, as scientists, are perfectionists, so the idea of having things outside of our control, like children, scares us,” she said. “You need to have reasonable expectations of yourself and those around you, and a ‘just do it’ attitude rather than over thinking things. And, you need to have a sense of humor. If something falls through that you have so carefully planned, it is disappointing, but most likely life will go on. You might as well find something humorous about the situation.”

Each month, *JOM* profiles a TMS member and his or her activities both in and out of the realm of materials science and engineering. To suggest a candidate for this feature, contact Lynne Robinson at [lrobinson@tms.org](mailto:lrobinson@tms.org).