

Member News



Updates on friends and colleagues in the materials community

TMS Members Receive Presidential Early Career Awards



Amy J. Clarke



Frank W. DelRio



Joseph E. Jakes



Keith Knipling

TMS congratulates its four members who were named winners of the Presidential Early Career Awards for Scientists and Engineers in July. The award is the highest honor conferred by the United States government on science and engineering professionals in the early stages of their independent research careers.

The TMS members receiving the Presidential Early Career Award in 2012 are: Amy J. Clarke, scientist, Los Alamos National Laboratory; Frank W. DelRio, mechanical engineer, National

Institute of Standards and Technology; Joseph E. Jakes, research materials engineer, U.S. Department of Agriculture Forest Service, Forest Products Laboratory; and Keith Edward Knipling, research scientist, Naval Research Laboratory, Department of the Navy. They will formally receive their awards at a White House ceremony.

Clarke was named a TMS Young Leader International Scholar in 2010 and received a TMS Young Leader Professional Development Award, Ma-

terials Processing & Manufacturing Division, in 2008. DelRio received a TMS Young Leader Professional Development Award, Structural Materials Division, in 2011.

Presidential Early Career awardees are selected for their pursuit of innovative research at the frontiers of science and technology and for their commitment to community service as demonstrated through scientific leadership, public education, or community outreach.

Alan Lawley Receives Lifetime Achievement Award

Alan Lawley, professor emeritus, Drexel University, and a TMS member since 1959, has received the Kempton H. Roll Powder Metallurgy (PM) Lifetime Achievement Award from the Metal Powder Industries Federation. The award recognizes individuals with outstanding accomplishments and achievements who have devoted their

careers and a lifetime of involvement in the field of powder metallurgy and related technologies.

Among his many contributions to the field, Lawley has been editor-in-chief of the *International Journal of Powder Metallurgy* since 1985 and has published more than 300 papers during his career.

TMS Members Assume Leadership Roles with *Acta Materialia*



George (Rusty) Gray III



Carolyn Hansson

Congratulations to two TMS members who have been elected to leadership positions for *Acta Materialia*, Inc.

George (Rusty) Gray III, 2010 TMS president, will serve as chair of the *Acta* Board of Governors. Gray is a laboratory fellow and staff member to the Dynamic Properties Team at Los Alamos National Laboratory. Carolyn Hansson, professor of Materials Engineering, University of Waterloo, Ontario, Canada, was named new Executive Secretary. Both Gray and Hansson had been members of the *Acta* Board of Governors Executive Committee.

In Memorium

William Scott

TMS extends its condolences to the family, friends and colleagues of William Scott, who passed away on June 25. Many TMS members know Scott from his 21 years of service with AMS International as its technical director. After retiring from ASM in 2004, Scott became treasurer of *Acta Materialia*, Inc. He later became chair of the *Acta* Board of Governors and led the organization until his death.

Scott earned his B.S. in Metallurgical Engineering from LaFayette College and his Ph.D. in Materials Science and Engineering from the University of Pennsylvania. Prior to joining ASM, Scott worked for Lukens Steel Company (now part of Mittal Steel), first as a research engineer and later as manager of research and development. He is survived by his wife, three children, and eight grandchildren.

Gary M. Michal

Gary M. Michal, the LTV Steel Chair in Metallurgy at Case Western Reserve University, passed away in May. He joined Case's Materials Science and Engineering faculty in 1983 and served as chair of the department from 1996 through 2007. He began his professional career as a research metallurgist with the Republic Steel Corporation as a project leader in the cold rolled steels area. He received his B.S. degree in Metallurgical Engineering from Case, and his M.S. and Ph.D. degrees in Materials Science and Engineering from Stanford University. TMS offers its sympathies to his family, friends, and colleagues.



TMS Member Profiles

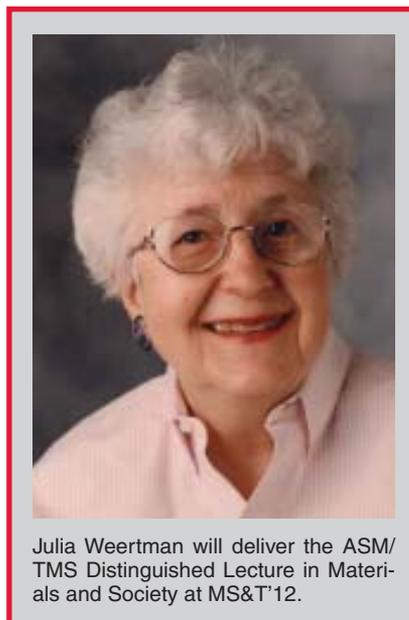
Meet a Member: Julia Weertman Examines Economic Considerations in STEM Recruiting

By Lynne Robinson

The seeds for Julia Weertman’s ASM/TMS Distinguished Lecture in Materials and Society, set for October at Materials Science and Technology 2012 (MS&T’12), were planted some years ago at a celebration for talented seventh and eighth graders. She had been asked to speak at a “graduation ceremony” of students who had completed the Midwest Talent Search, a summer enrichment program hosted by Northwestern University. As part of the festivities, each student was to share what he or she wanted to pursue as a career. Much to Weertman’s surprise and chagrin, none of them wanted to be an engineer and only one wanted to pursue a scientific career. “Most of them said they wanted to be investment bankers, I guess because they thought that’s where the money was,” she recalled.

The topic of Weertman’s lecture, “Economics, Materials and Materials Scientists,” will draw from this experience and other observations she has made over the years on making science and engineering attractive career choices for the next generation workforce. “Much has been discussed about the need for better prepared science and math teachers, improved schools, and more funding to attract students into the science, technology, engineering, and mathematics (STEM) fields,” she said. “But, I believe another factor is that most STEM professionals simply do not make as much money as those in other careers. You generally do not get rich in STEM, which can be an issue in a culture where success is measured by income.”

Weertman said she has looked to the *JOM* annual salary survey for insights in preparing her talk. “The *JOM*



Julia Weertman will deliver the ASM/TMS Distinguished Lecture in Materials and Society at MS&T’12.

information is very well-presented in that it shows how salaries change as we progress in our careers,” she said. “What strikes me is that salaries in materials science and engineering plateau strongly, particularly when you compare them with the progression of incomes in other professions. Science and engineering coursework is very hard, and for some, the perceived pay-off is not worth those challenges.”

Current economic trends might influence more young people to give science and engineering a try, Weertman said, since employment projections in these areas are generally strong. Still, she believes that all factors that could possibly impact on the decision to pursue a STEM career—including economic incentives—should be considered when developing strategies to build the future science and engineering workforce.

While she maintains that there is “no silver bullet” to the issue of ensuring

the future strength and quality of the STEM workforce, Weertman commented that positive personal experience with teachers or STEM professionals is still probably the most powerful tool in the STEM recruitment arsenal. She credits her own high school chemistry teacher for encouraging her to study physics, ultimately earning her B.S., M.S., and D.Sc. from the Carnegie Institute of Technology (now Carnegie-Mellon University), Pittsburgh. “I believe that many people can trace their career interests back to someone who inspired them,” she said.

Editor’s Note: Julia Weertman will deliver the 2012 ASM/TMS Distinguished Lecture in Materials and Society on Monday, October 8, at 1 p.m. during the Materials Science & Technology Conference and Exhibition (MS&T’12) in Pittsburgh, Pennsylvania. A 1993 TMS Fellow, Weertman is currently the Walter P. Murphy Professor Emerita of Materials Science and Engineering at Northwestern University. She is a member of the National Academy of Engineering and the American Academy of Arts and Sciences, has published more than 170 papers, and holds several patents. Among her many awards and honors are the Von Hippel Award from the Materials Research Society, the Gold Medal from ASM International, and the Institute of Metals/Robert Mehl Lecture Award from TMS. Her research is currently focused on determining the mechanical properties of a variety of nanostructured materials, characterizing their structure, and studying deformation mechanisms in this small length scale regime.

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.

MS&T’12 A more detailed preview of MS&T’12 can be found in the News and Update section of this issue of *JOM*.