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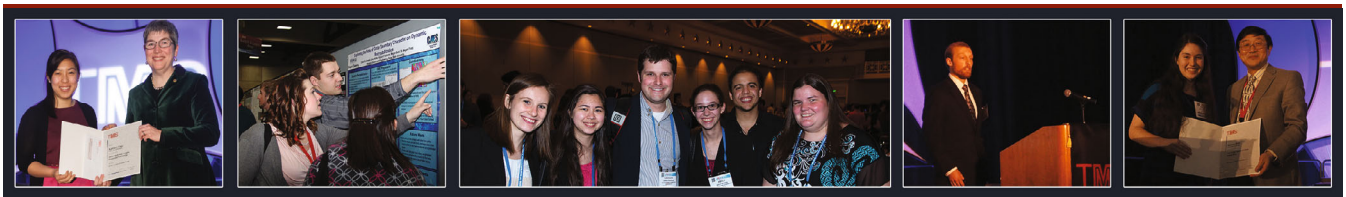


TMS PRESENTS: 16 Student Award Recipients in 2016

Kaitlin McMahon

Receiving a TMS scholarship, made possible by the TMS Foundation, supports students in many ways. The financial assistance lightens the load of paying tuition bills. The travel support enables students to network with other students and professionals at the TMS Annual Meeting & Exhibition. Most importantly, the recognition gives students a chance to realize their dreams. The validation that comes from being awarded a TMS Scholarship motivates students to reach a little higher, go one step further, and inspire the future. The 16 profiles of the 2016 TMS Scholarship Awardees on the following pages offer a personal look at the significant impact of the TMS Foundation.

These students will accept their awards during their respective division events or the AIME-TMS Awards Ceremony at the TMS 2016 Annual Meeting & Exhibition (TMS2016), February 14–18, in Nashville, Tennessee. The ceremony and lecture portions of division luncheons, as well as the AIME-TMS Awards Ceremony, are open to all TMS2016 attendees, so be sure to stop by and personally congratulate the scholars on their hard work and accomplishments.

Make a Difference in the Future of Your Profession: *Support the TMS Foundation*

For more than two decades, the TMS Foundation has made a difference in the lives and careers of numerous students through its scholarship programs. A few of the Foundation's most recent success stories are shared in this article by its scholarship awardees.

To ensure that future generations of students have access to these opportunities, the TMS Foundation needs the support of its professional members. Please visit www.TMSFoundation.org/Contribute to make a donation online today. Donors can make a contribution by check, made payable to the TMS Foundation, mailing it to TMS, 184 Thorn Hill Road, Warrendale, PA 15086. For information or to discuss your donation options personally, contact Mary Samsa, TMS Foundation & Public Affairs Manager, at msamsa@tms.org.

TMS2016 attendees will also have a special opportunity to make an impact by participating in the TMS Foundation Silent Auction during the annual meeting. Conveniently located in the Exhibit Hall and open during exhibition hours and events, the Auction will feature a number of items to bid on, with all proceeds benefitting TMS Foundation scholarship and young professional programs. Like last year, the most popular items are anticipated to be treasures handcrafted by TMS members. A preview of some of these items will be available on the TMS Foundation website at www.TMSFoundation.org. To donate an item, please contact Kimberly Cannon, TMS Senior Manager, Volunteerism & Human Resources, at kcannon@tms.org.

A group of students at the Faces of the Foundation booth at the TMS 2015 Annual Meeting & Exhibition.

TMS Scholars: In Their Own Words

J. KEITH BRIMACOMBE PRESIDENTIAL SCHOLARSHIP

Awarded through the TMS Foundation to undergraduate students majoring in metallurgical engineering, materials science and engineering, or minerals processing/extraction programs.

Ivan Au

University of Alberta

The University of Alberta's materials engineering program has given Ivan Au the opportunity to work in several institutions and companies around the world, including Enbridge Pipelines and EVRAZ in Canada, and Technische Universität Ilmenau in Germany. "The TMS Foundation has galvanized my path towards a career in materials engineering. Before this scholarship, I was unsure whether or not it would be a worthwhile investment to continue my education in materials engineering. But with this award, I am now less burdened by the financial prospects of education and motivated to work and study harder," he said. In addition to academic studies and internships, Au is involved with the Engineering Students' Society (ESS) and his university's chapter of Engineers without Borders. Au plans to pursue graduate studies to research advanced materials for aerospace applications. "This scholarship is proof that the work ethic of students does not go unnoticed," he said. "TMS has inspired me and will continue to inspire the next generation of materials engineers for decades to come."

Ivan Au

EXTRACTION & PROCESSING DIVISION (EPD) SCHOLARSHIPS

Awarded through the EPD and the TMS Foundation to sophomore or junior undergraduate students majoring in the extraction and processing of minerals, metals, and materials.

Maureen Chorney

Montana Tech of the University of Montana

"The EPD Scholarship will be extremely beneficial to me as I work to achieve my educational goals," said Maureen Chorney, a student majoring in metallurgical and materials engineering at Montana Tech of the University of Montana. Chorney is a member of the Metallurgy Club and Chemistry Club, and works as a teaching assistant for the general chemistry labs at Montana Tech. She has gained experience through internships and research projects for Idaho National Laboratory, the Army Research Laboratory, and the Office of Naval Research. "The generous award provided by the TMS Foundation will cover many of my expenses as I complete my bachelor's degree and continue my education by pursuing a graduate degree in metallurgical and materials engineering. It is an honor to receive this scholarship."

Maureen Chorney

Jordan Dick

South Dakota School of Mines and Technology

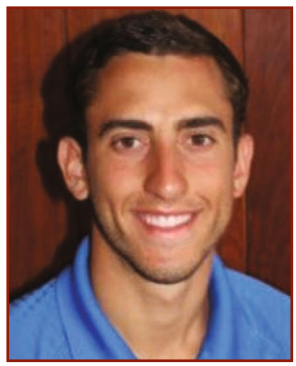
Originally from Casper, Wyoming, Jordan Dick first attended Eastern Wyoming College on a basketball scholarship. After two years, he transferred to South Dakota School of Mines and Technology (SDSM&T). While managing to earn a basketball scholarship at SDSM&T, he was set back about one year in attaining his bachelor's degree in metallurgical engineering. "Being on a basketball scholarship has helped me pay for my tuition each year," said Dick. "However, as a fifth-year senior, I no longer have that support. This TMS scholarship will help to make up for the void left by my prior basketball scholarship."

Jordan Dick

Mark Mazzucco

South Dakota School of Mines and Technology

Mark Mazzucco is a senior metallurgical engineering student at SDSM&T, having previously graduated summa cum laude with a bachelor's degree in psychology and a focus in pre-medicine from Arizona State University in 2013. In addition



Mark Mazzucco

Kerry McQuaid

to his coursework, Mazzucco competed at the NCAA Division II level for the Hardrocker men's basketball team over the last two years. He currently serves as the treasurer of SDSM&T's chapter of the National Society of Black Engineers. Mazzucco has been recognized as a men's basketball department scholar, a Collegiate Association Business Scholar, and a Grand Canyon Section of the Society for Mining, Metallurgy, and Exploration (SME) Scholar.

Kerry McQuaid
Colorado School of Mines

"This scholarship allows me to relax about the financial health of my entire family. I have fewer loans to repay and my parents need less time to finish paying off the mortgage," said Kerry McQuaid, who is the secretary of the Colorado School of Mines Material Advantage Chapter and the treasurer of the Mine Rescue Team. She has served as a co-op student with The Dow Chemical Company, interned with Freeport-McMoRan, and assisted with research through the Kroll Institute for Extractive Metallurgy. She notes that each position has taught her valuable skills and knowledge that she looks forward to applying to her studies and work. "Receiving this scholarship lets me know that the skills I'm continuing to learn and have to offer are wanted," she said. "I'll be able to impact the world in a way that I want to, and being a scholarship recipient gives me a massive confidence boost."

FUNCTIONAL MATERIALS DIVISION (FMD) GILBERT CHIN SCHOLARSHIP

Awarded through the FMD and the TMS Foundation to sophomore or junior undergraduate students studying subjects related to synthesis and processing, structure, properties, and performance of electronic, photonic, magnetic, and superconducting materials, as well as materials used in packaging and interconnecting such materials in device structures.

Ziyin Huang

Ziyin Huang
Drexel University

Ziyin Huang is a student in Drexel University's materials science and engineering combined BS/MS program. He served as the president of the Material Advantage Drexel Chapter and vice-president of the Tau Beta Pi Pennsylvania-Zeta Chapter, an engineering honors society, and is the current assistant student chapter chair of the American Society of Engineering Education Student Division. "Financial need is always my biggest concern about my education. Even though I receive some money from a Drexel scholarship and my teaching assistant positions, it can only cover a small portion of the tuition and the high cost of living in the city. Thank you so much for making this scholarship possible and giving me the opportunity to receive this award," said Huang upon being chosen as the FMD Gilbert Chin Scholar. He continued: "To me, this scholarship is not only a financial award which lightens my financial burden, it is also a recognition that inspires me to follow my passion. I hope that one day I will have the opportunity to give back to future students."

LIGHT METALS DIVISION (LMD) SCHOLARSHIP

Awarded through the LMD and the TMS Foundation to outstanding sophomore or junior undergraduate students majoring in metallurgical and/or materials science and engineering with an emphasis on both traditional and emerging light metals.

Daniel Balder

Daniel Balder
University of Minnesota

Daniel Balder, currently a junior in the materials science and engineering program at the University of Minnesota, began his college career at the age of 16 at Dakota County Technical College. While there, he studied materials science for the first time. Balder later transferred to the University of Minnesota to learn more about materials and how he can use his new knowledge to make better products. "The LMD Scholarship will allow me to pursue my education in materials science as a full-time student. Because I will not have to work part-time during the semesters, I will be able to better develop my practical

understanding through participation in Material Advantage," said Balder. "This scholarship makes my goal of becoming a materials engineer possible. I would like to sincerely thank the TMS Foundation for its generosity."

Cory Potter
University of Alabama at Birmingham

Cory Potter is currently a junior pursuing a bachelor's degree in materials science and engineering at the University of Alabama at Birmingham. While taking classes, Potter works part-time on campus as a student assistant in the School of Engineering Design Lab. His primary purpose in the lab is to help fellow engineering students use necessary equipment for research or class projects. "This award greatly alleviates my financial burden. If it were not for this scholarship, I may have had to work a part-time job to help pay for schooling, leaving me with less time to devote to my academics," Potter said. "I will now be able to focus more effort towards such activities as my departmental honors research."

Hannah Woods,
Purdue University

"The honor of receiving the LMD Scholarship has encouraged me as I work toward one of my most important personal goals—earning my undergraduate degree" said Hannah Woods, a student at Purdue University majoring in materials science and engineering and minoring in chemistry and Spanish. Woods transferred to Purdue after earning her associate's degree from the College of Lake County. She is currently involved with the Purdue American Chemical Society Student Affiliates, the Purdue University Material Advantage Outreach Committee, and the Purdue Society of Women Engineers. "Being a part of Material Advantage has given me the opportunity to be more deeply involved within the materials engineering community. This scholarship provides financial relief and further motivation to continue my hard work and dedication as a student. I am extremely grateful for this recognition from TMS, and am excited for my further involvement as a member of Material Advantage."

Cory Potter

Hannah Woods

MATERIALS PROCESSING & MANUFACTURING DIVISION (MPMD) SCHOLARSHIPS

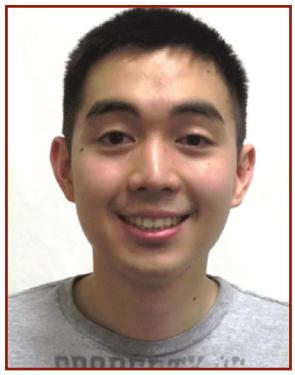
Awarded through the MPMD and the TMS Foundation to sophomore or junior undergraduate students majoring in metallurgical and/or materials science and engineering, with an emphasis on manufacturing, integrating process control technology into manufacturing, and basic and applied research into key materials technologies that impact manufacturing processes.

Bill Nguyen
Drexel University

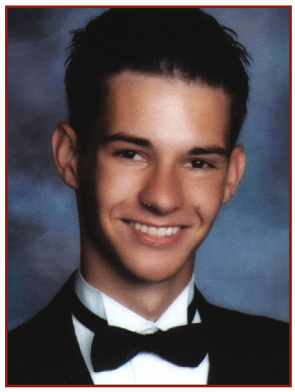
Bill Nguyen is currently majoring in materials science and engineering. During his fifth year at Drexel, Nguyen will be studying abroad: "I will be finishing up my studies in Italy at Politecnico di Milano. Following my studies, I will take a six-month research position at the Universidad Politecnica de Madrid in Spain." After completing the program, Ngyuen will receive his master's degree in materials science, in addition to his bachelor's degree from Drexel. "This award will directly support me in my endeavors abroad. Without scholarships such as this one, taking advantage of such a tremendous opportunity would not be possible."

Gregory Strader
University of Utah

Gregory Strader has worked for almost two years on the functionality of graded tungsten cobalt carbide with Heavystone Lab LLC, an off-campus lab extension. "The TMS Foundation has helped connect me with awesome opportunities," Strader said. "It's a lot of help to receive funding to get you through the year." He has previously received the University of Utah's Department of Metallurgical Engineering Outstanding Sophomore Award, various departmental scholarships, and the Rosenbaum Scholarship from the Office of the Dean. "I really appreciate this honor and am looking forward to continued interaction with TMS," said Strader.



Bill Nguyen



Gregory Strader

Rebecca Stern

STRUCTURAL MATERIALS DIVISION (SMD) SCHOLARSHIP

Awarded through the SMD and the TMS Foundation to sophomore or junior undergraduate students majoring in metallurgical and/or materials science and engineering with an emphasis on the science and engineering of load-bearing materials, including studies into the nature of a material's physical properties based upon its microstructure and operating environment.

Rebecca Stern
University of Connecticut

"This generous SMD Scholarship from the TMS Foundation benefits me greatly by reducing some financial stress," said Rebecca Stern, a senior at the University of Connecticut who intends to earn her Ph.D. in materials science and engineering. She has worked with Pfizer Inc. on her capstone senior design project, using quantum mechanical computational methods to accurately predict the pK_a solution of a molecule. Additionally, Stern is chapter president of Alpha Sigma Mu, a materials science and engineering honor society, and was named a 2014 New England Scholar. "This scholarship also allows me to network with members of TMS during the SMD Luncheon," she said. "It is nice to be recognized for my achievements because it encourages me to continue to work hard. I look forward to thanking members of SMD and all of TMS in person."

Zhiqian Sun

TMS BEST PAPER CONTEST: GRADUATE DIVISION

Awarded through the TMS Foundation for essays or technical research papers showing original thought and creativity on global or national issues and relating to any field of metallurgy or materials science.

1st Place
Zhiqian Sun
University of Tennessee
"The Nano-Sized Precipitate Stability and Its Controlling Factors in a NiAl-Strengthened Ferritic Alloy"

Zhiqian Sun received his B.S. in materials science and engineering at Shanghai Jiao Tong University, China, in 2009. He then joined the University of Tennessee and obtained his Ph.D., also in materials science and engineering, in 2015. "It is my great honor to receive this award," said Sun. "It helps publicize and promote my research work, and I have had great discussions with researchers and colleagues. I have also obtained excellent training in technical writing during the preparation." During his Ph.D. study, Sun developed NiAl-strengthened ferritic alloys for high-temperature applications in fossil-energy power plants. His research focused mainly on the processing-

Apply for a 2017 TMS Scholarship

Are you a full-time undergraduate or graduate student looking to offset the cost of tuition, while also gaining early professional recognition? Consider applying for a 2017 TMS Scholarship. Applicants must submit a completed TMS scholarship application, up to three recommendations, a personal statement, and a transcript with current GPA to Bryn Simpson, TMS Member Services Specialist, at bsimpson@tms.org. The deadline for applications is March 15, 2016. For information on each scholarship and application requirements, visit awards.tms.org and select "Student Awards" from the left side menu.

Whitney Patterson, right, receives a Materials Processing & Manufacturing Division (MPMD) Scholarship from Joy Forsmark.

microstructure-mechanical property of metals and alloys.

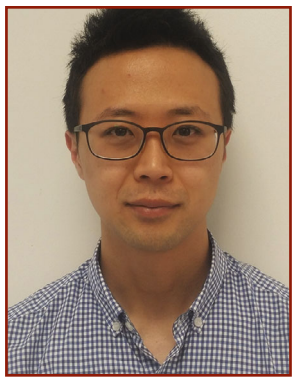
2nd Place

Gian Song

University of Tennessee

"Investigation of Novel Hierarchical-Precipitate-Strengthened Ferritic Superalloys with Superior Creep Resistance"

Gian Song joined the Department of Materials and Science Engineering at the University of Tennessee, Knoxville, as a research assistant student in August 2011. Upon receiving the TMS Best Paper Award, Song said: "This is a great honor for me because TMS is one of the biggest associations in the minerals, metals, and materials fields. Many people with a variety of technical interests and experiences around the world attend the TMS annual meeting and recognize TMS awards as an excellent accomplishment for graduate students." Song has been involved in a project with Center for Nanophase Materials Science at Oak Ridge National Laboratory and is currently working on a U.S. Department of Energy project where he focuses on the fabrication of alloys, creep properties, microstructural characterization, and understanding of the creep deformation mechanisms using transmission-electron microscopy, scanning-electron microscopy, atom-probe tomography, and advanced neutron-diffraction.



Gian Song

AIME Henry deWitt Smith Scholarships

Funded by the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME), of which TMS is a member society, this scholarship is awarded to graduate students majoring in mineral, metals, and/or materials engineering. Founded in 1967, the AIME Henry deWitt Smith Scholarship aims to advance the mineral industries by assisting students in the pursuit of graduate education in mining, metallurgical, materials, or petroleum-related disciplines.

Jessica Buckner

University of Texas

Jessica Buckner earned her B.S. in metallurgical and materials engineering from the University of Texas at El Paso (UTEP) in 2013. During her undergraduate studies, she was awarded many honors, including placement in the top 10 percent of engineering students at UTEP and a National Science Foundation scholarship in science, technology, engineering, and math (S-STEM). She is currently pursuing a Ph.D. in materials science and engineering at UTEP. Her dissertation focuses on materials characterization of Ti-6Al-4V space shuttle Columbia components and arc-jet samples in order to better understand the accelerated degradation of titanium in a re-entry environment. While pursuing her graduate degree, Buckner serves as the treasurer of Alpha Sigma Mu, a materials science and engineering honor society, and also works as a teaching assistant in the metallurgy department.

Janet Gbur

Case Western Reserve University

"I am extremely humbled and thankful to the TMS Foundation and AIME to be named a Henry DeWitt Smith Scholar," said Janet Gbur. She earned her B.S. in biology/pre-medicine from Kent State University, and both a B.E. in materials engineering and M.S.E. in mechanical engineering from Youngstown State University. In 2011, she joined Case Western Reserve University as a Ph.D. student, where she focuses on the fatigue behavior and mechanical reliability of wire-based systems used in biomedical applications. "My participation in TMS conferences and serving as a member of the TMS Biomaterials Committee has contributed significantly to my professional development and broadened my interest in materials for biomedical applications," Gbur said. "The scholarship will be used to further enhance my materials education and I look forward to continuing my involvement in the materials community and with TMS."

Jessica Buckner

Janet Gbur