Dear Friends of the TMS Foundation:

In 2017, the TMS Foundation continued the growth it has seen over the last several years since its revitalization. Programs supporting the development of students and young professionals continued, along with a number of awards honoring professional excellence for TMS’s more established members. New initiatives for recognizing our generous donors and engaging and retaining new ones also launched over the course of the year, while the Foundation formalized its financial support for Materials Explorers™ and the TMS Bladesmithing Competition. And, a new website gave us an easier-to-use, mobile-friendly online contribution form while also expanding the information available on programs and ways to give back.

Highlights of the 2017 Annual Appeal included new campaigns to meet a $30,000 challenge, celebrate Mole Day (October 23) and Giving Tuesday (November 28), and increase new donors in the TMS Foundation family. From just the annual appeal, the TMS Foundation raised $110,687 from October through December 2017. Over the entire year, the Foundation raised $129,749 in unrestricted contributions (donations to be used by the Foundation as needed for programs and operations) and $211,040 in restricted contributions (donations made to specific awards or programs). This was all possible through 325 individuals, including 74 new donors.

All in all, 2017 was a busy and successful year for the TMS Foundation. It never would have been possible without the generosity of those committed to advancing our mission. Read on to learn more about Foundation-funded programs, to see how the Foundation is making an impact, and to find out how you can get involved.

Sincerely

Garry W. Warren
Chair, TMS Foundation Board of Trustees

2017 TMS FOUNDATION BOARD OF TRUSTEES

Chair
Garry W. Warren
Professor Emeritus,
University of Alabama

Executive Committee
Representative
Stanley M. Howard
Senior Lecturer and
Professor Emeritus,
South Dakota School of
Miners & Technology

Trustees
Viola Acoff
Associate Dean,
University of Alabama

Edward D. Herderick
Director, Additive
Manufacturing,
The Ohio State University

David A. Shifler
Program Officer,
Office of Naval Research

Carl M. Cady
Technical Staff Member,
Los Alamos National
Laboratory

Elizabeth A. Holm
Professor,
Carnegie Mellon
University

Secretary
James J. Robinson
TMS Executive Director

Hani Henein
Professor,
University of Alberta

Ray Peterson
Technology Director,
Real Alloy
Our Mission

The mission of the TMS Foundation is to support the development of professionals in the minerals, metals, and materials community within the context of our global society by providing scholarships to the field’s most promising students and investing in the future of the profession and the industries it serves. The Foundation also funds programs that assist young professionals in attaining the highest level of technical, professional, and leadership development.

Our Programs

Students

Kaufman CALPHAD Scholarship
This scholarship is awarded to undergraduate students majoring in metallurgical engineering, materials science and engineering, or minerals processing/extraction programs. Supported by CALPHAD Inc. and other donors, and the TMS Foundation, this award was established to recognize the memory of Larry Kaufman.

Student Travel Grants
Assistance for attending the TMS annual meeting is provided by the five technical divisions for student applicants. Three of the technical divisions also provide financial assistance for student applicants wishing to attend the Materials Science & Technology Conference.

TMS Best Paper Contest
Both undergraduate and graduate students are encouraged to submit essays on global or national issues as well as technical research papers relating to any field of metallurgy or materials science.

TMS Technical Division Scholarships
Undergraduate students can apply for a number of scholarships funded through each of TMS’s five technical divisions and the TMS Foundation. Thanks to the generous support of Battelle and its chief executive officer and president, Jeffrey Wadsworth, each of the TMS Division Scholarships are doubled in value to the student recipients, while also opening doors to educational advancement. Each undergraduate division scholarship is matched, through the Battelle Matching Scholarship Program. Additionally, every student who receives a Battelle Matching Scholarship will also receive a Battelle Materials Graduate Student Award when the student matriculates to graduate school to continue studies in a materials-related field.

TMS International Symposium on Superalloys Scholarships
This scholarship is awarded to undergraduate and graduate students majoring in metallurgical and/or materials science and engineering with an emphasis on all aspects of the high-temperature, high-performance materials used in the gas turbine industry and all other applications. This scholarship is funded by the TMS Foundation and issued under the generosity of the TMS International Symposium on Superalloys Committee.

Young Professionals

AIME Robert Lansing Hardy Award
This award recognizes a young person in the broad fields of metallurgy (including minerals processing, physical or adaptive metallurgy, and metal processing) and materials science for exceptional promise of a successful career. The award is funded by the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME) and a donation by the Ford Motor Company through the TMS Foundation.

Early Career Faculty Fellow Awards
This award recognizes an assistant professor for his or her accomplishments that have advanced the academic institution where employed, and for abilities to broaden the technological profile of TMS.

Emerging Leaders Alliance Program
The TMS Foundation covers registration fees for eight TMS representatives for the annual Emerging Leaders Alliance (ELA), a multi-society initiative that provides an interdisciplinary community of learning for engineering and scientific professionals.
TMS/FEMS Young Leaders International Scholar Award
This award acts as an exchange program between TMS and the Federation of European Materials Societies (FEMS) to offer select young professionals the opportunity to present papers at international sessions.

TMS/JIM Young Leaders International Scholar Award
This award acts as an exchange program between TMS and the Japan Institute of Metals and Materials (JIM) to offer select young professionals the opportunity to present papers at international sessions.

TMS Young Leaders Professional Development Awards
The TMS Young Leaders Professional Development Award was created to help early career professionals to more fully participate in TMS activities, become better acquainted with their peers and the society, make important contacts with TMS leaders, and network with prominent society members.

Professionals

Ellen Swallow Richards Diversity Award
This award is conferred upon an individual who, in the remarkable pioneering spirit of Ellen Swallow Richards, has helped or inspired others to overcome personal, professional, educational, cultural, or institutional adversity to pursue a career in minerals, metals, and/or materials. Presentation of this award is supported by a gift to the TMS Foundation from Jeffrey Wadsworth and Geraldine McCulley Wadsworth.

Frank Crossley Diversity Award
This award recognizes an individual who, like Frank Crossley, the first African American to receive a Ph.D. in metallurgical engineering, has overcome personal, professional, educational, cultural, or institutional adversity to pursue a career in minerals, metals, and/or materials. Presentation of this award is supported by a gift to the TMS Foundation from Jeffrey Wadsworth and Geraldine McCulley Wadsworth.

Julia and Johannes Weertman Educator Award
Beginning in 2018, the TMS Educator Award was renamed to honor Julia and Johannes Weertman for their individual and joint accomplishments. This award recognizes an individual who has made outstanding contributions to education in metallurgical engineering and/or materials science and engineering. This award was endowed in 2017 through the TMS Foundation by colleagues and friends of Julia and Hans Weertman, as well as the Department of Materials Science and Engineering and the McCormick School of Engineering and Applied Sciences at Northwestern University.

Nagy El Kaddah Award for Best Paper in MHD in Material Processing
Established to honor the memory of Professor Nagy El-Kaddah for his contributions in the field of material processing, this award recognizes original contributions to the field of MHD in Material Processing. This award is presented through the TMS Extraction & Processing Division (EPD), with support from the award creator, Thinium Natarajan of U.S. Steel.
"This recognition of academic achievement will surely inspire me to further progress my academic and research endeavors. Once again, I cordially thank and appreciate the TMS Foundation for continuing to support and encourage higher education."

— Kazi Tasneem, Second Place, 2017 TMS Best Paper Contest – Graduate

"Mere words cannot describe the gratitude I have for receiving the SMD Scholarship and for the TMS Foundation. The scholarship greatly helps to alleviate the financial burden currently being placed on college students and it is all possible through the excellent work done through the TMS Foundation. I am beyond humbled to have been given this honor of receiving this scholarship and it is an award I will carry with me into my career for years to come."

— Jonathan Healy, 2017 Structural Materials Division Scholar

Oleg D. Sherby Award
This award recognizes individuals with an established record or research and publications in the field of high-temperature behavior of materials who have had or will have a major impact on the understanding of the behavior of materials at high temperatures. Oleg Dimitri Sherby was a pioneer in the high temperature deformation of complex materials. Presentation of this award is sponsored by a gift to the TMS Foundation from Jeffrey Wadsworth of Battelle.

Other Program Support
The TMS Foundation also supports STEM (science, technology, engineering, and mathematics) outreach initiatives, including the ASM Foundation Materials Camp; student participation in the Electronic Materials Conference; TMS’s Materials Explorers™ program, launched in 2018; and the TMS Bladesmithing Competition, held every other year at the TMS annual meeting.
TMS Foundation Initiatives

The 40/40 Club
The 40/40 Club is a new initiative by the TMS Foundation for young professionals, aged 40 or under, who give $40 or more to the Foundation in one calendar year.

The 1871 Legacy Circle
The 1871 Legacy Circle is a giving club that recognizes individuals who have provided for the TMS Foundation through planned giving. The name reflects the heritage of TMS: the American Institute for Mining, Metallurgical and Petroleum Engineers (AIME), our antecedent organization, was established in 1871 to form the foundation of TMS as we know it today.

Lifetime Giving Honorific Societies
By making generous donations to the TMS Foundation over the course of a lifetime, members of the following Lifetime Giving Honorific Societies have made a significant and permanent impact on the future of the minerals, metals, and materials professions.

- **Diamond Society**
  *Lifetime contributions totaling $100,000 or more*

- **Platinum Society**
  *Lifetime contributions totaling $50,000 to $99,999*

- **Gold Society**
  *Lifetime contributions totaling $20,000 to $49,999*

- **Titanium Society**
  *Lifetime contributions totaling $10,000 to $19,999*

- **Silver Society**
  *Lifetime contributions totaling $5,000 to $9,999*

“It is a great honor to be chosen for this award. The TMS Foundation has been and will continue to play a major role in my professional career by allowing me to be a part of and have leadership roles in the Professional Development, Diversity, and other technical committees at TMS. It is because of TMS’s commitment to its societal involvement that allows young researchers to be a part of such a global initiative to advance science that will have great technological and societal impact for many generations to come.”

—Kinga Unocic, 2017 Young Leaders International Scholar – JIM
"I am really honored to receive this prestigious award from the TMS Foundation. Since first becoming a TMS member in 2013, I have felt that TMS and its meetings provide an array of career and technical development programs for many young researchers working in materials science and engineering, which have greatly helped me to grow professionally and connect to fellow scientists and engineers in both industry and academia. I am very excited to be part of the growth and advancement of TMS and the TMS Foundation, and truly look forward to more actively participating in and contributing to future TMS activities and the TMS community."

— Guihua Yu, 2017 Early Career Faculty Fellow

### 2017 Honor Roll

**1871 LEGACY CIRCLE**

Martin E. and Lucinda Glicksman

**LIFETIME GIVING HONORIFIC SOCIETIES**

**Diamond Society ($100,000 or more)**

- Martin E. and Lucinda Glicksman
- Jeffrey Wadsworth and Geraldine McCulley Wadsworth
- Rob and Robyn Wagoner

**Platinum Society ($50,000 to $99,999)**

- Rob and Robyn Wagoner

**Gold Society ($20,000 to $49,999)**

- Diran and Seta Apelian
- Om P. Arora (deceased)
- Kenneth R. Kinsman
- Garry W. Warren

**Titanium Society ($10,000 to $19,999)**

- Carl M. Cady

**Joseph and Bonnie* Defilippi**
- Gordon H. Geiger
- Edward D. and Michelle A. Herderick
- Elizabeth Holm and David Crockett
- Stan and Carol Howard
- Lionel and Linda Kimerling
- Marc A. Meyers
- Brajendra and Deepa Mishra
- Patrice and Michèle Turchi
- William G. Wagstaff (deceased)

**Silver Society ($5,000 to $9,999)**

- Viola L. Acoff
- Cynthia K. Belt
- David and Joan DeYoung
- George T. Gray III
- Hani Henein
- Gregory and Joy Hildeman
- Ronald E. Miller

- Dan and Tina Miracle
- Harold W. Paxton
- Ray D. Peterson
- James and Lynne Robinson
- Alexander and Angela Scott
- David Shifter in Memory of Robert B. Pond Sr.
- Robert D. and Mary C. Shull
- King-Ning Tu
- Frank E. Wagstaff
- Robert B. Wagstaff

*Passed away since gift made

**2017 ANNUAL GIVING HONOR ROLL**

**Foundation Leader ($2,500 or more)**

- Acta Materialia Inc.
- Carl M. Cady
- Joseph and Bonnie* Defilippi
- David and Joan DeYoung
- Martin E. and Lucinda Glicksman
Edward D. and Michelle A. Herderick
Stan and Carol Howard
Kenneth R. Kinsman
Marc A. Meyers
Dan and Tina Miracle
David Shifler in Memory of Robert B. Pond Sr.
Robert D. and Mary C. Shull
Patrice and Michèle Turchi
Rob and Robyn Wagoner
Garry W. Warren

**Foundation Founder** ($1,000 to $2,499)
Viola L. Acoff
American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME)
Corbett C. Battaile
Cynthia K. Belt
Kester and Amy Clarke
Jonathan A. Dantzig
George T. Gray III
Kevin and Maria Oliva Hemker
Hani Henein
Stephen E. Kelly
George Krauss
David and Diane Laughlin
Thaddeus B. Massalski
Ronald E. Miller
Paul and Leah Ohodnicki
Harold W. Paxton
Ray D. Peterson
Wolfgang A. Schneider
Raymond L. Smith*
Gregory B. Thompson
King-Ning Tu

**Foundation Builder** ($500 to $999)
Russell P. Austin
Brett R. Bosley
Ray and Mary Decker
Dennis M. Dimiduk
James C. Foley
Siegfried S. Hecker
Patrick F. Jarvis
Aimee L. Kennedy
Malesa A. Litteral
Paul Mason
David and Diane Matlock
Michael J. Mills
Tresa M. Pollock in Honor of James Williams of The Ohio State University
James and Lynne Robinson
Mark R. Stoudt and Carelyn E. Campbell
Thermo-Calc Software Inc.
Ronald Dean Townsend
Wagstaff Inc.
James A. Yurko
Steven J. Zinkle

**Foundation Provider** ($250 to $499)
John E. Allison
Anonymous Donor
Eric N. Brown
Jennifer L.W. Carter
Joy H. Forsmark
David U. Furrer
Ronald Gibala
William P. Imrie
Campbell Laird
Enrique J. Lavernia
Peter W. Loomis
Ramulu Mamidala
Wes Moss
Ryan K. Roeder
George and Kathy Spanos
Chester and Natalie Van Tyne

**Foundation Ambassador** ($100 to $249)
Reza Abbaschian
Antoine Allanore
Anonymous Donor
Richard J. Arsenault
James Ault
Ian Baker
Thomas P. Battle
Robert J. Beltz
Thomas R. Bieler
John C. Bierlein
William J. Boettinger
Brad L. Boyce
David J. Browne
Douglas Burkes
Patrick and Kimberly Cannon
Shuanglin Chen
Julie A. Christodoulou
James A. Clum

*Passed away since gift made
Richard E. Cole
Sam R. Coriell
Subodh K. Das
Anthony J. Deardo Jr.
Alfredo Oscar Del Campo
Eric Detsi
Saryu Jindal Fensin
Jeffrey W. Fergus
Stephen M. Foiles
Marc Fry
Brent T. Fultz
Anthony F. Giamei
Douglas C. Haag
Leonard Harris
Jeffrey A. Hawk
Robert W. Hayes
Richard W. Hertzberg
John P. Hirth
Lee E. Hoffman
Sung K. Kang
Gerald P. Kelton
Marian S. Kennedy
Mark W. Kennedy
Sanji Kitaoka
Sanboh Lee
Carlos G. Levi
John J. Lewandowski
Juan Carlos Madeni
Koichiro Mashio
Alexander McLean
Christina Elizabeth Meskers
Edward E. Mild
Thomas W. Montemarano
Neville R. Moody
Erik M. Mueller
Jagdish Narayan
G. Robert Odette
Matthew G. Osborne
Harmen Oterdoom
Mark A. Palmer
Stephen John Pearton
Yoosuf N. Picard
Norbert L. Piret
Ramana G. Reddy
Kirk Alan Rogers
Anthony D. Rollett
Herman S. Rosenbaum
Krishnan and Dharma Sankaran
Justin and Erin Scott
David N. and Rose Seidman
Doug Shymoniak
Alok Singh
Douglas Spearot
Dale F. Stein
Joseph Strauss
Dilip K. Subramanyam
Chantal K. Sudbrack
Arthur P. Turner
Pello Uranga
Dirk E. Verhulst
Richard M. Waterstrat
Edward McRae Williams
Gerardo Raul Alvear Flores
Kevin R. Anderson
Anonymous Donor
Aziz I. Asphahani
Sudarsananam S. Babu
Roy Baguley
David F. Bahr
Andrew H. Baker
David L. Baty
Bruce R. Bergeson
Michael P. Brady
John M. Brear
Kyle S. Brinkman
Yasmin Brown
Daniel C. Bufford
Ronald N. Caron
Ellen K. Cerreta
Indrajit Charit
Joseph Chieu
Kuo-Chih Chou
Harold R. Clark
Theresa Coetsee
Peter C. Collins
Megan J. Cordill
Danielle L. Cote
Jacob Crane
Christian Decaillet
Steven L. Dedmon
Lucas Demysh
George J. Dormer
Junji Eguchi
Michael G. Fahrmann
Robert D. Field
Joel Filner
Paul S. Follansbee

**Foundation Patron**
($25 to $99)
Vincent Ben B. Abratigue
Abdul Ganiyu F. Alabi
Husain F.F.H.S. Alnaser
Organizational Giving

Help make the good work of the TMS Foundation possible. Partner with us today.

Thank you to our organizational donors as of 2017:

- Battelle
- Thermo-Calc Software
- CALPHAD 1973
- CompuTherm
- AMECO USA
It’s Easy to Give Back

You can make a difference by contributing to the TMS Foundation in one of these ways:

1. Donate online: www.TMSFoundation.org/Contribute

2. Send a check, payable to the TMS Foundation, to the address below.

3. Contact the TMS Foundation staff using the information below to discuss your donation personally.

Contact Us

TMS Foundation
The Minerals, Metals & Materials Society
5700 Corporate Drive Suite 750
Pittsburgh, PA 15237

1–724–776–9000
TMSFoundation@tms.org

www.TMSFoundation.org

The TMS Foundation is a unit of The Minerals, Metals & Materials Society, which is a qualified 501(c)3 tax-exempt organization. The official registration and financial information of The Minerals, Metals & Materials Society (EIN: 25-1484913) may be obtained from the Pennsylvania Department of State by calling toll-free, within Pennsylvania, 1–800–732–0999. Registration does not imply endorsement.