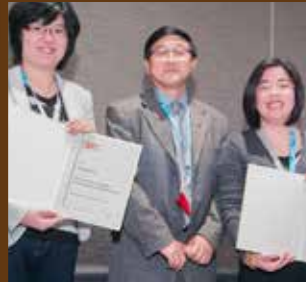
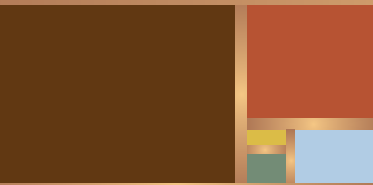


 **TMS**
FOUNDATION
2017 ANNUAL REPORT





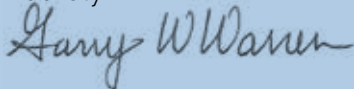
Dear Friends of the TMS Foundation:

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

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

Executive Committee Representative

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

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.

HOW YOUR DONATION SUPPORTS FUTURE GENERATIONS

Learn more about the impact of the TMS Foundation, in the words of those who know best.



"Since my first year as a graduate student, TMS has always been a professional home for all my research needs. The TMS annual meetings helped me to grow professionally through formal presentations of my research work, participation in TMS technical committees, organizing symposia, establishing connections with top researchers in the field, and involvement in young professional activities and poster sessions. I am grateful to the TMS Foundation for funding the Young Leaders Professional Development Award, which will enable me to get more involved in TMS committees and activities."

—**Fadi Abdeljawad**,
2017 Functional Materials Division
Young Leader

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, Thinius 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 2017 FINANCIAL OVERVIEW

2017 TMS Foundation Giving



■ Total Unrestricted ■ Total Restricted
■ Total TMS Amount

2017 TMS Foundation Program Expenditures



■ Scholarships ■ Young Professional Leaders
■ Awards ■ Materials Explorers
■ Student Paper/Poster Contests ■ Student Travel



“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

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 Honoric Societies

By making generous donations to the TMS Foundation over the course of a lifetime, members of the following Lifetime Giving Honoric 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





"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

**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 Shifler in Memory of
Robert B. Pond Sr.

Robert D. and Mary C. Shull

King-Ning Tu

Frank E. Wagstaff

Robert B. Wagstaff

**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

*Passed away since gift made



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

Foundation Patron (\$25 to \$99)

Vincent Ben B. Abratigue
 Abdul Ganiyu F. Alabi
 Husain F.F.H.S. Alnaser

Gerardo Raul Alvear Flores
 Kevin R. Anderson

 Anonymous Donor

Aziz I. Asphahani
 Sudarsanam 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. Fahrman
 Robert D. Field
 Joel Filner

Paul S. Follansbee

Rajendra M. Gandhi
 Gordon H. Geiger
 40/40 Douglas E. Gobeski
 Ashok Kumar Gogia
 William M. Goldberger
 Robert J. Gottschall
 Richard E. Grace
 John A.S. Green
 Mustafa Guclu
 Roderick I.L. Guthrie
 Zhang Haiyan
 Carol A. Handwerker
 40/40 Adam J. Hehr
 Martin C. Heilmaier
 40/40 Andrea Holland
 John N. Hryn
 Xiaoxu Huang
 Liang Hui
 Sun-Moo Hur
 Seth D. Imhoff
 Laurence A. Jackman
 Melvin R. Jackson
 Alyx M. Kahn
 Tomoyuki Kakeshita
 Masaharu Kato
 Peter L. Kern
 Ralph C. Kirby
 Paul Korinko
 Matthew J. Kramer
 Dileep Kumar C J
 Jeffrey C. LaCombe
 Wilbur S. Latimer
 Rodolfo S. Lazo Davila
 40/40 Calvin R. Lear

Alexis C. Lewis
 Yan Li
 Greta Lindwall
 Arnold P. Litman
 Bhaskar S. Majumdar
 Stanislaw T. Mandziej
 Peter E. Marshall
 Jan W. Matousek
 Larry D. May
 James D. McGuffin-Cawley
 Terry R. McNelley
 Antonio Jose Melendez
 Ramirez
 Graham Mellen
 Masahiro Michino
 Scott Morris
 40/40 Benjamin Morrow and
 Clarissa Yablinsky
 Robert G. Moss
 Neale R. Neelameggham
 Sergey B. Novichkov
 Kenneth M. O'Connor
 Mani Palani
 Anita Patricio
 Frank E. Pfefferkorn
 Adam C. Powell IV
 40/40 Ramprashad Prabhakaran
 Paul D. Prichard
 Evelyn M. Putman in
 Memory of
 John W. Putman
 Yi Qing
 V. Ramachandran
 Charles E.C. Rense
 Steve Reubi
 Lewis Reynolds

Nolan E. Richards
 40/40 Orlando Rios
 Linda L. Rishel
 40/40 Theron M. Rodgers
 Michael Roesner-Kuhn
 Adrian S. Sabau
 Mark E. Schlesinger
 W. Joseph Schlitt
 Jeffrey E. Shield
 Sang Soo Shin
 Meisha L. Shofner
 Eugene A. Silva
 Ernest J. Sirois
 James L. Smialek
 Winston Oluwole
 Soboyejo
 Erivelto Luis Souza
 Malcolm Stocks
 Carlos Enrique Suarez
 Dion J. Sunderland
 Robert M. Suter
 Sy Sweet
 Eric M. Taleff
 Manabu Tamura
 John M. Tartaglia
 Anthony Taylor
 Karem Tello
 Peter-Hans Ter Weer
 Alan David Tomsett
 Stewart W. Towle
 Eran Tuval
 40/40 Kinga Angelika Unocic
 Heather M. Volz
 40/40 Cong Wang
 Ping Wang



Tadao Watanabe
Thomas R. Watkins
Trevor J. Watt
Qiuming Wei
Glenn G. Whiteside
Matthew and Maria Willard

Jean M. Winterbottom in
Memory of
Walter Winterbottom
James C. Withers
David B. Witkin
Winnie K. Wong-Ng
John Randolph Wood

Patrick Woolsey
Jien-Wei Yeh
Charles Fred Yolton
Yuzheng Zhang
Bi-Cheng Zhou



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:



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.

