



ASM MATERIALS
EDUCATION FOUNDATION

Annual Report 2015

Mission

To excite young people in materials, science, and engineering careers

Dear friends:

The ASM Materials Education Foundation knows that donors have a choice when it comes to charitable giving and we are extremely grateful that you have chosen to place your financial support behind our mission. Therefore, we are dedicating this year's theme to **YOU**, the donors! We are working in harmony with you to "*Inspire the future together.*"



Building on last year's accomplishments, the Foundation is making changes aimed at creating new initiatives to continue fulfilling our mission, increase operational efficiency, and expand our organizational capacity.

These growth initiatives are intended to:

- Expand our menu of programs to more effectively excite young people to pursue careers in STEM fields.
- Deliver a greater degree of service to our donors and members.
- Increase visibility through use of the internet.

These dynamic achievements are being fueled by our talented, smart, and dedicated donors, partners, and Board of Trustees. **YOU** make it possible to provide quality programs for teachers and students and, like us, you believe in encouraging the next generation of materials scientists and engineers.

Thank you for your trust, generous support, and commitment, which enables today's youth to flourish and inspire others. We couldn't do it without you.

With gratitude,

Michel Campana

ASM Materials Education Foundation 2015 Board of Trustees

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Dear Champions of the ASM Materials Education Foundation,

As my two-year term comes to a close as chairman of the ASM Materials Education Foundation, I wanted to thank you for the opportunity to serve the Foundation and the Society. These last two years have been an exciting time and one that I think has effected important changes in both our board and our mission. It was a great privilege to be part of it and to serve with



such wonderful people on the board, executive team, staff, and at ASM International.

So what is new? Our board has diversified. We have younger members, more females, and colleagues with backgrounds beyond materials and who bring new perspectives to our mission of exciting young people about STEM careers. Even so, we have more work to do, particularly with regard to racial diversity.

Our programs have also become more diverse, consistent with our updated strategic plan. Our mission has grown from scholarships and camps to a much broader focus—all aimed at exciting young people about science, engineering, and materials. Your Foundation has incubated four new business units that will be important to increasing our impact on the ASM and STEM communities. One of these is an afterschool science program for middle school students that is run in cooperation with area museums—with a goal of exciting this age group about STEM and materials before they enter high school. For older students, our second business unit is a community college program designed to bring skilled technologists into the workforce. We have provided an initial round of scholarships to these deserving students. Another new initiative involves distance learning for teachers. Along with Temple University, we have invested in a website aimed at teaching science in an exciting and innovative

way. This program expands our reach to schools everywhere, reaching beyond those served by our 40+ teacher camps. The curriculum covers not only coursework for pre-college common core standards, but also next-generation science standards. Finally, we are beginning to pursue how to excite younger students at an earlier age, namely fourth grade and younger when the desire for STEM education is more formative to their career choices.

We are excited by the potential of these new initiatives and realize that we may fail at some while succeeding at others. In any event, we are pursuing constructive change to enhance the scope of our goals and impact, so we can meet our mission more fully and at a lower cost.

We are sincerely grateful to all who have helped make this possible, particularly our ASM membership, ASM board, Foundation board, and executive leadership—and our wonderful donors that come from both inside and outside the materials community. It has been a pleasure working with you.

—Dr. David B. Spencer



My daughter cannot stop talking about the ASM Materials Camp! What an incredible experience! She learned an absolute ton, gained some neat exposure and knowledge about materials engineering, and really enjoyed bonding with fellow prospective engineers. A huge thank you for organizing and running such an amazing program.

— LAWRENCE SPINETTA (PARENT OF EISENMAN CAMP ATTENDEE)



REVENUE

2015 CONTRIBUTIONS

Titanium \$10,000+

ASM Materials Camp Canada
 Building Engineering & Science Talent
 Carpenter Technology Corp.
 Denny, Arline Mrs.
 Dyrkacz, Mary Mrs.
 Ellwood Group
 Forging Foundation (FIERF)
 General Motors LLC
 Henry M. Rowan Family Foundation Inc.
 Ivy Tech Community College
 Ladish Co. Foundation
 Lightweight Innovations For Tomorrow
 Lockheed Martin Sandia Corporation
 NACE International
 National Center for Defense
 South Central Tennessee Workforce Alliance
 The School District of Greenville County
 Thermo-Calc
 University of Southern Mississippi
 U.S. Air Force

Platinum \$5,000 - \$9,999

Agilent Technologies
 ASM Chicago Regional Chapter
 ASM Cincinnati Chapter
 ASM Columbus Chapter
 Carnegie Mellon University
 Ceramic & Glass Industry Foundation
 Copley, Stephen M. and Todd, Judith A.
 Decker, Raymond and Mary
 Element Materials Technology
 Glasgow, Thomas K.
 Jones, Peggy E.
 Keough Family Foundation
 Magneco/Metrel Inc
 New Jersey Institute of Technology
 Shashkov, Dimitry
 Shropshire, William W.
 Spencer, David B.
 St. Mary's University
 The University of Akron
 University of Illinois

Gold \$1,000 - \$4,999

AIST Foundation
 Alcoa Foundation
 American Ceramic Society

American Foundry Society
 Andrews, John V.
 Apelian, Diran
 ASM Boston Chapter
 ASM Chicago Regional Chapter
 ASM Cleveland Chapter
 ASM Indianapolis Chapter
 ASM Muncie Chapter
 ASM Oak Ridge Chapter
 ASM Puget Sound Chapter
 ASM Rhode Island Chapter
 Asphahani, Aziz I.
 Berndt, Christopher C.
 Busch LLC
 Cargill Corporation
 Carnegie Mellon/Gelfand Foundation
 Caulkins, Jennie D.
 Central State University
 Chevron Corporation
 Connelly, Michael B. & Eileen
 Halverstadt, Robert D.
 Hi TecMetal Group
 Hogue, Frauke
 Kulkarni, Kishor M.
 Laughlin, David E.
 Maldonado, Julio G.
 Materion
 Medtronic
 Muzyka, Donald R.
 Nydam, Andrew G.
 Pursall, P.
 Questek Innovations LLC
 R.P. Simmons Family Foundation
 Schwartz, Lyle H. and Jurkovich, Celesta
 Society For The Advancement of Material & Processing Engineering
 Surbey, Lisa
 Torcolini, Robert J. and Silan, Lynn D.
 UES
 University of Utah
 Wright State University

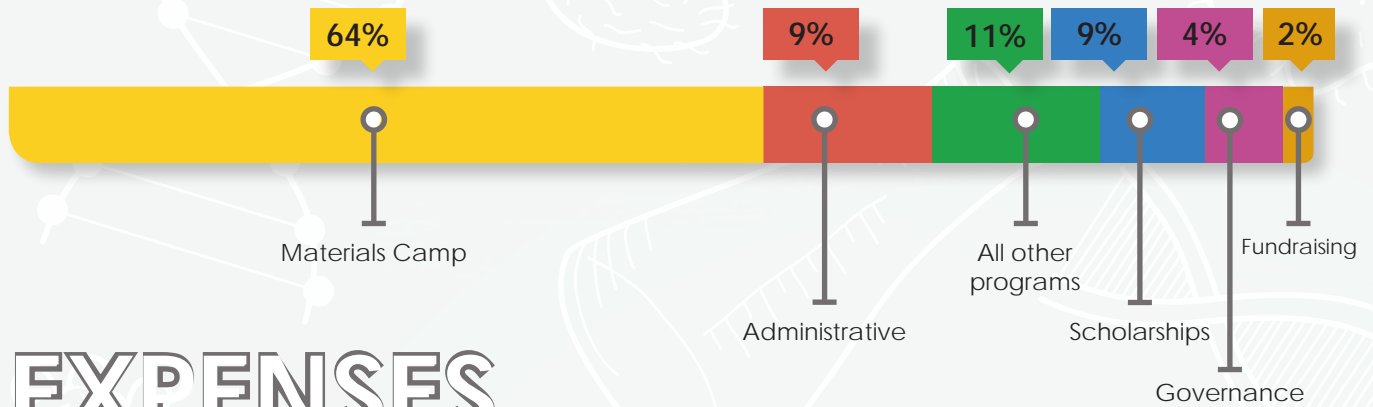
Silver \$500 - \$999

Anderson, Iver E.
 ASM Kansas City Chapter
 Ciszewski, Jill
 Dicus, Dennis L.
 Drosdak, II, John M.
 First Energy Foundation
 Glicksman, Martin E.

Gouba, Sandra L.
 Havics, Andrew A.
 Hayrynen, Kathy L.
 Joseph, Rowdy L.
 Kolene Corporation
 Kowalski Heat Treating Company
 Lambda Research
 Passek, Thomas
 pH2, LLC
 Purdue University
 Smith, Mark F.
 Sonon, Daniel E.
 The Benevity Community Impact Fund
 Williams, David B.

Bronze \$100 - \$499

Adams, Francis E.
 Allison, John
 Anderson, Kevin R.
 Angelides, Peter G.
 Arthur, Robert P.
 Bagnall, Chris
 Becker, Veronica
 Berardinis, Larry
 Bierlein, John C.
 Blessing, Welton
 Bowen Pittman, Rachel
 Bridenbaugh, Peter R.
 Burt, Victoria
 Callister, William D.
 Campana, Nichol
 Campbell, John A.
 Carpenter, Joseph
 Central State University
 Clauer, Allan H.
 Clinton, Jr., Charles E.
 Clum, James A.
 Coatta, Stephen
 Conti, Patty
 Dean, Sheldon W.
 Deatherage, Pergentina
 Dieter, George
 Dodeja, Ravi
 Dowling, Jr., William E.
 Earle, Jacquelin M.
 Elder, James
 Fleming, Mary Anne
 Foley, James
 Foulds, Jude R.
 Gaw, William D.



EXPENSES

Bronze \$100 - \$499 (continued)

Geiger, Gordon H.
 Gibala, Ronald
 Goodwin, Debbie
 Gschneider, Karl A.
 Hales, Crispin
 Harper, Sheila I.
 Harrysson, Ola
 Henry, Scott
 Hirth, John P.
 Holloway, Paul H.
 Hoover, Christine
 Horner, Howard E.
 Howard, Stanley M.
 Jackson, Elle
 Jerson, Mary Anne
 Juhas, Mary
 Kammerer, Henry G.
 Knudson, Steven E.
 Kurtz, Steven J.
 Kushnick, Steven B.
 Lai, George
 Laughlin, David E.
 Lichtman, Ira M.
 Linker, Fred
 Luetje, Robert E.
 Lupulescu, Afina
 Mehler, George
 Michigan Metrology
 Mikoda, Sr., James H.
 Miller, Joanne
 Nye, Donald E.
 Pang, Mengzhi
 Pense, Alan W.
 Phelps, Henry R.
 Prevey, Paul S.
 Radzilowski, Ronald
 Rapp, Robert A.
 Richards, Frances
 Rigdon, Michael A.
 Romano, Ralph
 Rosenfield, Alan R.
 Schneider, Cecil
 Schultz, Jay W.
 Scot Forge Company
 Shaffer, Jeffrey
 Shirk, Ginny
 Simon, Jack G.
 Siren, Nils T.
 Smith, Raymond L.

Subramanyam, Dilip K.
 Sudarshan, T. S.
 Taylor, Harold L.
 Totta, Paul A.
 Trester, Paul W.
 Turner, Arthur P.
 United Technologies Corp.
 Vergason, Gary E.
 Vermillion, Linda
 Wade, Steven A.
 Walker, James L.
 Weslowksi, Robert A.
 Williamson, Gregory A.
 Witt, Gary G.
 Yolton, C. Fred
 Zamrik, Sam Y.

Friends \$99 & under

Al Dajane, Maher
 Allasino, Sergio Luis
 Allen, Chris
 Andersen, James
 Anderson, Conrad H.
 Arbes, Carl
 Arias, Delia E.
 Backer, Dennis F.
 Baik, Sue
 Bain, Andrew
 Barbour, George
 Barnes, Anthony John
 Bavarian, Bezak
 Beiss, Paul
 Belanger, Jonathan
 Bendle, Jennifer
 Bencoter, Arlan O.
 Birtch, Wally
 Blais, Christopher B.
 Bobee, Thomas G.
 Boileau, James M.
 Bossard, J. G.
 Bowerman, Biays S.
 Bradley, Don
 Brady, Michael P.
 Brassard, Suzanne
 Breen, Dale H.
 Brincko, Andrew J.
 Brock, Virginia R.
 Cadien, Kenneth C.
 Caldwell, Sargent
 Cameron, David W.

Campbell, Ronald
 Carr, Jr., Leonard E.
 Carter, Jennifer L. W.
 Cavalli, Matthew
 Celli, Marco
 Chandrasckaran, V. Chandru
 Charit, Indrajit
 Chau, Hung C.
 Chester, Karly N.
 Chojnacki, Mark
 Christodoulou, Julie A.
 Cisar, Kelly
 Clark, Harold R.
 Clark, Jessica
 Clark, Marshal D.
 Collins, Sunniva R.
 Colter, Thomas
 Conybear, James G.
 Coriell, Sam R.
 Coyle, Thomas W.
 Danilak, Stephen
 Darragh, Craig V.
 Dascoli, Michael
 Davenport, Brian
 Davies, Richard G.
 Davis, Maria
 Defeo, Angelo J.
 Dellabiancia, Calo
 Dennig, Paul
 Dever, Joyce A.
 Dicken, Michael
 Diehl, Kenneth L.
 Diffenbach, P. J.
 Dixon, Gwendolyn
 Donaldson, Ian
 Donaldson, Jennifer
 Dormer, George J.
 Dougherty, James, R.
 Dovicsak, Sr., Robert
 Druschitz, Alan P.
 Duda, Patricia
 Dupont, Pierre
 Duran, Rafael Alcantara
 Dyke, Lorne C.
 Edwards, Janice L.
 Egger, Helmut
 Elder, Jr., Harry M. I.
 Elder, Kayla
 Elliott, Daniel S.
 Elsey, James

2015 ASM FOUNDATION PACESETTER AWARD

The Forging Foundation was established in 1961 by the leaders of the Forging Industry Association to foster forging education and technology development in engineering schools and research universities. Sponsorship of ASM's Materials Camps for Teachers has provided the opportunity to reach to a younger audience with whom the forging supply chain story can be shared.



In addition to the financial support, each teacher participant receives a set of materials for use back in their classrooms – the 'Forge Your Future' bag contains print and electronic materials covering the forging process and careers in the industry.

Industry volunteers also get involved in local camp activities by making brief, informal presentations typically over lunch on—Metals Day—and share where forgings are found and how it applies to daily life.

Connections made at the camps have led to industry volunteers being invited to make classroom presentations and organize plant tours for student field trips. All building relationships between forging producers and supplier companies' future workforce pipeline.

ASM MATERIALS EDUCATION FOUNDATION STATEMENTS OF FINANCIAL POSITION DECEMBER 31, 2015 AND 2014

	ASSETS	
	2015	2014
CURRENT ASSETS		
Cash and cash equivalents	\$ 19,812	\$ 11,570
Current portion of pledges receivable	72,052	35,221
Accounts receivable - ASM International	-	168,235
	<u>91,864</u>	<u>215,026</u>
PROPERTY AND EQUIPMENT, net	<u>5,950</u>	<u>5,950</u>
OTHER ASSETS		
Pledges receivable, net of discount	31,866	36,676
Investments	10,930,861	11,895,469
	<u>10,962,727</u>	<u>11,932,145</u>
	<u>\$ 11,060,541</u>	<u>\$ 12,153,121</u>
	LIABILITIES	
CURRENT LIABILITIES		
Line of credit	\$ 675,177	\$ 720,177
Accounts payable and accrued expenses	18,141	7,086
Accounts payable - ASM International	94,977	-
Other	3,500	39,808
	<u>791,795</u>	<u>767,071</u>
	NET ASSETS	
Unrestricted:		
Operating	2,715,844	3,100,744
Board Designated	5,574,297	6,216,162
Temporarily restricted	1,075,344	1,222,158
Permanently restricted	903,261	846,986
	<u>10,268,746</u>	<u>11,386,050</u>
	<u>\$ 11,060,541</u>	<u>\$ 12,153,121</u>

REMEMBERING ROBERT D. HALVERSTADT

We lost a cherished friend, leader, and champion of the ASM community in 2015 with the passing of board member Robert D. Halverstadt. Bob served the Foundation with distinction in his role as a Trustee since 2007 and has our profound gratitude and appreciation for his support and remarkable influence. His vision and leadership will have a lasting effect and we will be forever grateful for his service and dedication.

Friends \$99 & under (continued)

Farmer, Janice
 Flores, Katharine M.
 Flury, Margaret T.
 Fraikor, Frederick J.
 Fraker, Anna C.
 French, Stephen M.
 Froetschel, Joseph R.
 Fry, Marc
 Fujikawa, Hisao
 Gaddy, Glen
 Gagg, Timothy P.
 Garrett, Steven M. I.
 Giamei, Anthony F.
 Gibbs, David
 Goma, Kanji
 Gonzalez, Sandra Cristina
 Gorton, Kinyon J.
 Graham, Robert
 Granger, Douglas A.
 Green, John A. S.
 Greenlay, Anne & Terry
 Gregory, Joseph W.
 Guarini, Roberto
 Guclu, Mustafa
 Hadjioannou, John
 Halbig, Michael
 Hallquist, John O.
 Halsey, Willam G.
 Hamers, Steve
 Harris, Kenneth
 Harris, Leonard
 Harrison, Steve L.
 Heard, John W.
 Hock, Gregory
 Hoffman, Raymond T.
 Hoffmann, Glenn C.
 Hubbard, Camden R.
 Huff, Amy
 Hull, Frederick C.
 Hurst, James J.
 Ito, Tsutomu
 Jackson, Peter
 James, Brad
 Janavicius, Paul
 Jenkins, James F.
 Jessen, Jr., Nicholas C.
 John Glenn Research Center
 Johnson, David L.
 Johnson, Jana
 Johnson, Kevin
 Kamvar, Parviz
 Keiser, James R.
 Kiser, Matthew T.
 Knorovsky, Gerald A.
 Koppiku, Ardjan
 Kottke, William C.
 Kovarik, Rebekah
 Kruse, Brandon
 Kuntz, Jason P.
 Lafferty, Ronald C.
 Last, Howard R.
 Lavoie, Jean
 Lazaridis, Nassos A.
 Leggett, Daniel C.
 Legvari, Joseph
 Leitch, Daniel B.
 Lentz, Charles W.
 Levy, Victor
 Liu, Qianchu
 Lonsbury, Eric
 Lynch, Richard F.
 Macaulay, Lyle
 MacDonald, William D.
 Mahanes, Harold P.
 Mahy, Tyler X.
 Marble, Wayne A.
 Marx, Daniel R.
 Massey, John R.
 Matousek, Jan W.
 May, William A.
 McLaughlin, David
 McLean, Alexander
 McNelley, Terry
 McPhate, Andrew J.
 Mejeur, Katie L.
 Metz, Jason C.
 Metz, Jr., Kenneth L.
 Miller, Michael A.
 Miller, Stuart
 Miranda, Gaspar R.
 Mobley, Carroll E.
 Morris, Greg
 Morris, John D.
 Morrissey, III, Edmund J.
 Munafo, Paul M.
 Murphy, Serena
 Myers, John T.
 Nagata, Peter K.
 Nagorka, Michael S.
 Nakamura, Yuichiro
 Narasimhan, Simon L.
 Natole, Ron
 Newell, Andrew
 Oakes, Jim
 O'Brien, David M.
 Oeters, Ronald R.
 Ormsbee, Charles J.
 Ortega Urita, Miguel Isaac
 Osmundson, Michael D.
 Pai, Jaisimha
 Painter, Jonathan
 Parent, Isabelle
 Parker, Miles
 Payzant, Edward A.
 Pechulis, Michael J.
 Pereira, Luiz
 Phillips, Barry W.
 Pinkowish, Alex
 Plehn, Edward J.
 Pollien, Jean-Pierre
 Pond, Robert B.
 Power, Peter M.
 Professional Analysis & Consulting Inc.
 Puskur, Partha
 Racek, Ondrej
 Ransome, Mark
 Rao, Ramesh C.
 Rense, Charles E.
 Rishel, Linda L.
 Rose, Jr., A. D.
 Rovertoni, Flavio M.
 Rua, Joseph M.
 Ruzauskas, Edward J.
 Sabo, Karen
 Saeglitz, Mario
 Salminen, Antti
 Sampson, Mark
 Sandrock, Gary D.
 Seaver, Scott
 Sellers, Susan
 Seren, Joseph J.
 Shemkunas, Michael P.
 Sherman, Andrew M.
 Silencer Co.
 Silicon Valley Community Foundation
 Silva, Eugene A.
 Singh, Jatinder P.
 Sirois, Ernest J.
 Smathers, David
 Smialek, James L.
 Smith, Carlisle
 Sotiriou, George
 Stinson, Jonathan S.
 Stockdale, Anne M.
 Stuart, Laura R.
 Stults, Cheryl
 Swartz, Anne Lisa
 Swindeman, Robert W.
 Takahashi, Tohru
 Tanaka, Yasuhiko
 Tartaglia, John M.
 Thacker, Karen
 Tilton, Mclane
 Tramble, Madrid
 Trice, Thomas
 Trojan, Paul
 Utter, Robert
 Vandebrake, Ken
 Vander Voort, George
 Vatalaro, James F.
 Vetterick, Gregory
 Vichos, Peter
 Villemure, Helene
 Vittori, Stephen W.
 Volz, Heather M.
 Wallace, William
 Warner, Terry
 Warren, Benjamin A.
 Washington, Jim
 Wenzel, Kelly
 White, Phillip R.
 Whiteside, Glenn G.
 Whittenberger, J. Daniel
 Wicks, George G.
 Wilhelmi, George F.
 Williams, Dean
 Williams, Heidi
 Wilt, Dale
 Witham, John P.
 Wood, Elizabeth
 Wright, Kenton B.
 Yamada, Yoshiro
 Yasinskiy, Alexey
 Yokota, Hideo
 Young, Barbara



2015 GEORGE A. ROBERTS AWARD

Ashok K. Khare

Ashok K. Khare is president, Ash Khare Consulting LLC. He is a metallurgical engineer and his education includes B.Sc., B.Tech., and M.S. degrees. He has served as an active member and volunteer

on numerous ASM International committees since 1977. Over the past 16 years, Khare has been an integral part of the ASM Materials Education Foundation's growth

strategy and has made significant contributions with regard to governance, nominating, awards, fundraising, and the Foundation Pillars Society. He also served as a valued member of the ASM Materials Education Foundation's board of trustees from 2001 to 2015. Khare received the ASM Fellow award in 1983, Allan Ray Putnam Service Award in 1990, and the ASM Honorary Life Member award in 2007. In addition, he is a Life Member of the National Academy of Sciences in India.

PILLARS SOCIETY

The Pillars Society honors individuals who support the ASM Materials Education Foundation through charitable bequests, life income gifts, and trusts. The program was established as a way to thank those who have recognized the future needs of the Foundation in their personal estate plans. Membership into the Society is open to any member who confirms a bequest or other form of planned gift to the Foundation.

The name ASM Pillars Society is based upon the symbol of the Foundation, representing the four Pillars of our purpose:

- Education
- Knowledge
- Leadership
- Service

Riad I. Asfahani
 Dr. and Mrs. Aziz I. Asphahani
 Don and Marilyn Blickwede
 Richard D. Brams
 Dr. and Mrs. Spencer H. Bush
 Wilford H. Coutts Jr.
 W. Raymond Cribb
 Mary and Ray Decker
 Dr. Daniel P. Dennies
 Mr. and Mrs. W. William Dyrkacz
 Mr. and Mrs. William Hunt Eisenman
 Mr. and Mrs. Arthur E. Focke
 Gordon and Ann Geiger
 R. G. "Gil" Gilliland
 Diane Goldin
 Maryella and Robert D. Halverstadt

Mr. and Mrs. Walter C. Hollander
 Mr. and Mrs. Ashok Khare
 Mr. Fred Kisslinger
 William P. Koster
 Edward H. Kottcamp, Jr.
 David and Barbara Krashes
 Dr. George Krauss
 Warren H. Krogstad
 William D. Manly
 Dr. and Mrs. Donald Muzyka
 Professor Jagdish Narayan
 Mr. and Mrs. John P. Nielsen
 Andy and Jane Nydam
 Ron and Cheryl Parrington
 Mr. and Mrs. Greg Petrus
 John and Nancy Pridgeon
 Mr. and Mrs. Ivan Racheff
 Bhakta B. and Sushama Rath
 Mr. and Mrs. William A. Reich
 George A. Roberts
 Alton D. and Julie Romig
 Karen Sabo
 Dr. Frederick E. Schmidt
 Lyle H. Schwartz and
 Celesta S. Jurkovich
 Dr. William W. Scott, Jr.
 Roch J. Shipley
 Jack and Ene Simon
 Edward E. Slowter
 Robert Sparks
 Tom and Jan Stoebe
 Dr. and Mrs. Carl E. Swartz
 R. C. Tucker, Jr., PhD, FASM
 Julius L. Turk
 Mr. and Mrs. Kent R. Van Horn
 Dr. Christopher Viney and Dr. Lisa
 Gilliland-Viney
 Dr. and Mrs. Charles A. Wert

2015 KISHOR M. KULKARNI HIGH SCHOOL TEACHER OF THE YEAR

Jim Curiel

An instructor and chair of Materials Science, Engineering, and Technology at Don Bosco Technical Institute, California.



If you made estate plans that include ASM Materials Education Foundation and would like to be listed as a member of the Pillars Society, please contact Nichol at 440-338-5151 ext. 5506.

ASM CHAPTER PARTNERS

ASM Chapters play a key role in the growth and expansion of ASM Foundation programs. Through volunteerism, organization, and hosting of a Materials Camp, as well as providing a network of speakers and mentors, the ASM membership contributes to educational outreach within the organization.

ASM Akron
 ASM Alamo
 ASM Albuquerque
 ASM Boston
 ASM Brandywine Valley
 ASM Calgary
 ASM Calumet
 ASM Chicago Regional
 ASM Cincinnati
 ASM Cleveland
 ASM Columbus
 ASM Dayton
 ASM Detroit
 ASM Eastern Virginia
 ASM Edmonton
 ASM Hartford
 ASM Houston
 ASM India

ASM Indianapolis
 ASM Kansas City
 ASM Lehigh Valley
 ASM Los Alamos
 ASM Los Angeles
 ASM Metro New York-New Jersey
 ASM Milwaukee
 ASM Minnesota
 ASM Northwestern Pennsylvania
 ASM Oak Ridge
 ASM Old South/Greenville
 ASM Ontario
 ASM Oregon
 ASM Ottawa Valley
 ASM Peoria
 ASM Philadelphia
 ASM Pittsburgh Golden Triangle
 ASM Puget Sound
 ASM Pune
 ASM Quad Cities USA
 ASM Rhode Island
 ASM Saginaw
 ASM South Central Pennsylvania
 ASM Twin Tier
 ASM Utah
 ASM Warren
 ASM West Michigan

SCIENCE & ENGINEERING FAIRS

The ASM Foundation in partnership with Intel has participated, since 2001, in presenting one “Most Outstanding Exhibit in Materials Science” award at approximately 500 regional science & engineering fairs throughout the world.

“I would like to thank you for selecting my project for your ASM Materials Education Foundation Award at the Central New Mexico Research Challenge. Your support has helped me win 1st place in the Engineering category and the Grande Award at the State Science Fair. I had a really fun time sharing my project with the judges and I hope to see you again with a 3D printer next year!”

**—ZACHARY FITZGERALD,
 ALBUQUERQUE, NM**

“I wish to thank you immensely for the prize you gave for my project, ‘The search for the Most Effective Ice Melt.’ Your encouragement has already sparked ideas for another science fair. Thank you!”

—REBECCA RAMTHUN, BOZRAH, CT

“I would like to thank you and the ASM Materials Education Foundation for recognizing my science fair project. I truly appreciate receiving the award of the Most Outstanding Exhibit in Materials Science and the medallion. I have never received a science medallion before. It really makes you feel good when someone recognizes your hard work and efforts.”

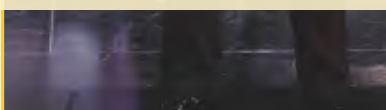
—JUSTIN TODD, SAN DIEGO, CA



DAVID JIMENEZ

“Most Outstanding Exhibit in Materials Science”

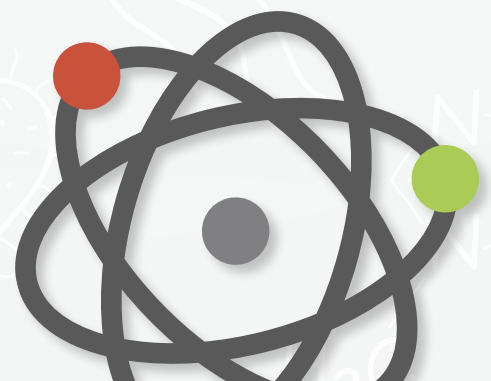
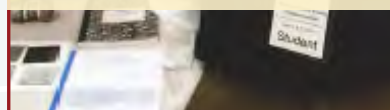
Washington State Science & Engineering Fair
 Sunnyside, WA

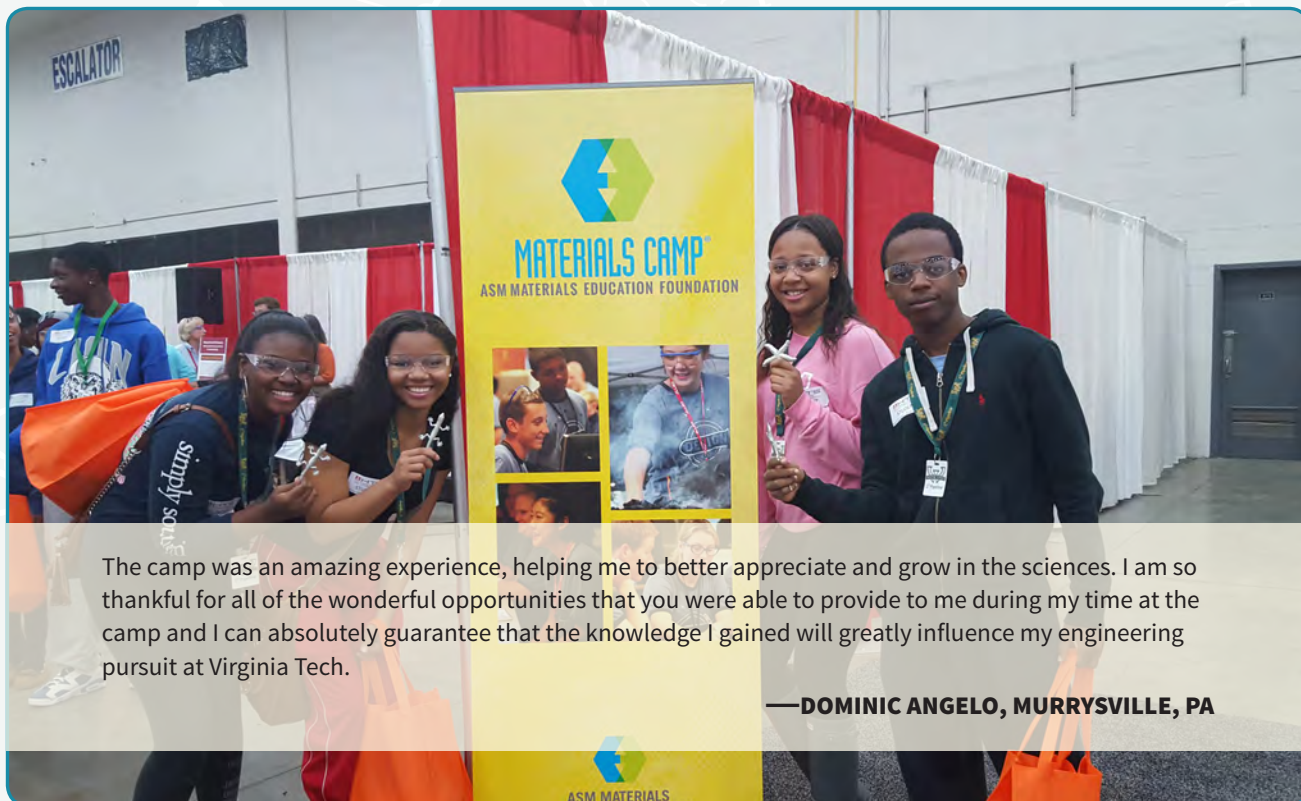


DAN AVILA

“Most Outstanding Exhibit in Materials Science”

Washington State Science & Engineering Fair
 Sunnyside, WA





The camp was an amazing experience, helping me to better appreciate and grow in the sciences. I am so thankful for all of the wonderful opportunities that you were able to provide to me during my time at the camp and I can absolutely guarantee that the knowledge I gained will greatly influence my engineering pursuit at Virginia Tech.

—DOMINIC ANGELO, MURRYSVILLE, PA

ACTION IN EDUCATION COMMITTEE

Dr. Padma Kodali – Chair
 Dr. Julio G. Maldonado
 Dr. Pranesh Aswath
 Dr. Christopher C. Berndt, FASM
 Mr. Kevin J. Bockenstedt
 Ms. Katrina N. Boos
 Dr. Dianne Chong, FASM
 Dr. Benjamin C. Church
 Mr. Eric D. Cole
 Dr. Daniel P. Dennies, FASM
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 Dr. Daniel J. Lewis
 Ms. Carolyn L. Merritt
 Prof. Gregory B. Olson, FASM
 Prof. Vilupanur A. Ravi, P.E., FASM

MATERIALS CAMP MASTER TEACHERS

Troy Alesi
 Bernoli I. Baello
 Kristin Beich
 Todd Bolenbaugh
 James Brownlow
 Jessica Clark
 Roger Crider
 Jennifer Donaldson
 Pat Duda
 Lonnie Dusch
 Beth Eddy
 Edmund J. Escudero
 Pamela Gilbert Smith
 Thomas Glasgow
 Debbie Goodwin
 Bob Hanlin
 Elizabeth Hann
 Rebecca Heckman
 Krystin Holmes
 Cynthia Hummel
 Michael Ireland

Caryn Jackson
 Ed Leong
 Gissel McDonald
 David McGibney
 Chris Miedema
 Andrew Nydam
 Lisa Ogiemwonyi
 Priscilla Oshikiri
 Scott Petersen
 Briana Richardson
 Sherri Rukes
 Morton Schaffer
 Ron Shealer
 Margaret Showalter
 Justin Sickles
 Analice Sowell
 Scott Spohler
 Jeff Webb
 Robert A. Wesolowski
 Brian Wilson
 Brian Wright
 Corey Zirker

"LIVING IN A MATERIAL WORLD" K-12 TEACHER GRANTS

Twenty \$500 grants awarded to K-12 teachers to develop and implement science activities in their classrooms.

Winning Proposals

1. **Characterization Using Visible Spectroscopy**, David Benedetto, Winchester High School, Massachusetts (Grades 10-12)
2. **How Do You Use The Computer Interface To Effectively Teach Material Science?** Etzel Brower, Egg Harbor Township High School, New Jersey (Grades 9-12)
3. **Smart World Materials**, Loris Chen, Michigan, Dwight D. Eisenhower Middle School, New Jersey (Grade 8)
4. **The Great Tower Challenge**, Karen Cobb, James Tillman Elementary, Florida (Grades K-5)
5. **The Chemistry of Materials**, Brooke Detty, Zane Trace Middle School, Ohio (Grade 7)
6. **Materials Science in Engineering**, Merle Green, Resurrection College Prep, Illinois (Grades 9-12)
7. **How can students create plastic without using petroleum based materials?** Meghan Hess-Shamdasani, South Tech Academy, Florida (Grades 9-12)
8. **Materials Science**, Eileen Hite, St. Clement of Rome, Louisiana (Grades 5-7)
9. **Additive Manufacturing Filament Testing and Evaluating**, Bill Hughes, Park Forest Middle School, Pennsylvania (Grades 6-8)
10. **Chemistry of Materials Course**, Ginger Keeton, Dixon High School, Missouri (Grades 10-12)
11. **Furnace for High School Materials Science Classes**, Jenifer Lawrie, Webb School of Knoxville, Tennessee (Grade 11-12)
12. **Glass Inquiry: Now You See It, Now You Don't**, Nancy Manikas, Webb School of Knoxville, Tennessee (Grades 11-12)
13. **Introducing a new course "Material Science and Engineering,"** Hanan Mogawer, The Prout School, Rhode Island (Grades 10-12)
14. **Pre-College Science Institute Robotics Program**, Alice Myles, Fisk University, Tennessee (Grades K-6)
15. **Chemical Reactions!: The Soda and Mentos Phenomenon**, Jill Reed, Philipsburg-Osceola Middle School, Pennsylvania (Grade 6)
16. **Electromagnets**, Dale Rundgren, Mt. Olive Lutheran School, Kansas (Grade 5-8)
17. **A GIANT Polymer Periodic Table Project**, Jennifer Sherburn, Hesperia High School, Michigan (Grades 10-12)
18. **Scientists in Residence**, Karen Stringer, Highline School district Residential Program, Washington (Grades 9-12)
19. **Mobile Materials Lab**, Lisa Winingar, Plainwell Middle School STEM Academy, Michigan (Grades 6-7)
20. **Pixel Power**, Teresa Zimmer, Cherokee Elementary School, Alabama (Grade 3-5)

EISENMAN MATERIALS CAMP BENEFACTORS

Permanently Endowed Student Scholarships

Air Products Inc.
 Doug Allan, FASM, and the Dave Fallen Memorial
 John and Marian Andrews
 Wendy Asphahani
 Bruce E. and Marilyn L. Boardman
 Buehler and Employees
 Mary Hegler Carus
 Mary and Ray Decker
 William and Mary Dyrkacz
 Ellwood Group, Inc.
 Engineering Systems Inc. and Professional Staff
 Diane Goldin
 Maryella and Bob Halverstadt
 William Hunt Eisenman Estate
 William P. Koster
 William D. Manly
 Mary P. Muzyka
 Northwest Pennsylvania ASM Chapter and Friends
 Jeanne and Richard Pitler
 John and Nancy Pridgeon
 George A. Roberts
 R.P. Simmons Family Foundation
 Bruce and Marilyn Boardman
 Paul and Frances Huber
 Donald and Eileen Muzyka

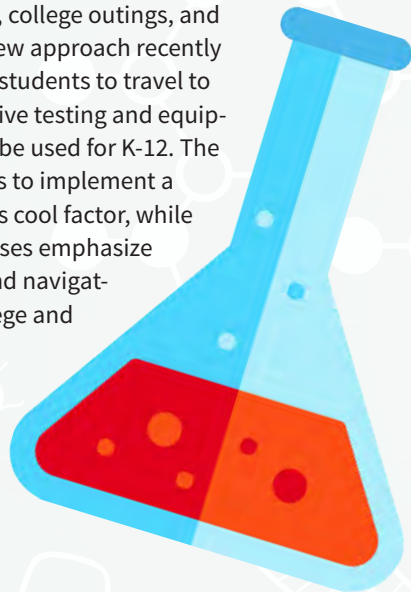
STUDENT CHAPTER GRANTS

This program launched in 2001 and supports Material Advantage student chapters' K-12 outreach activities that align and advance the Foundation's mission. Since inception, 72 grants have been awarded.

Five grants awarded in 2015 to:

- Colorado School of Mines
- Virginia Tech
- Rensselaer Polytechnic Institute
- University of Texas at El Paso
- Auburn University

The goal of CSMMAC outreach is to introduce students and the general public to metallurgy and materials science and engineering through demonstrations, interactive discussion, and tours of metallurgy departments. Demonstrations are held at elementary and high school science days, college outings, and community festivals. A new approach recently implemented allows the students to travel to Hill Hall and experience live testing and equipment use. All demos can be used for K-12. The goal for younger grades is to implement a “wow” material science is cool factor, while the later high school classes emphasize expanding vocabulary and navigating interest towards college and career opportunities.



2015 UNDERGRADUATE DESIGN COMPETITION

Design ... a critical component to revitalize engineering in materials education.

- **First Prize:** \$2,000 + \$500 travel assistance + \$500 to the department for support of future design teams
Winner: California State Polytechnic University-Pomona
Title: “Design of Diffusion Coatings: Effect of Process Control on Microstructural Evolution”
- **Second Prize:** \$1,500 + \$500 travel assistance
Winner: Carnegie Mellon University
Title: “Recycling of Specialty Metal Plant By-Products”
- **Third Prize:** \$1,000 + \$500 travel assistance
Winner: Michigan Technological University
Title: “E357 Alloy Design To Increase Elongation and Maintain Strength”

2015 NATIONAL MERIT SCHOLAR

The ASM Materials Education Foundation has been participating in the National Merit Scholarship Program since 1964. The National Merit Scholarship Corporation is a not-for-profit organization with a portion of its scholarship activities underwritten by some 500 independent corporate, college, and foundation sponsors like the ASM Foundation.



Nicholas Han
Westview High School



Eagle Crest high school materials program at a Colorado School of Mines outreach event.



Thank you for this opportunity to continue my education in science. I so appreciate the Foundation funding my participation. I have doubled the number of hands-on activities for my students in this one week of excellent presentations! Thank you for the materials and the plethora of ideas.

— **TEACHER PARTICIPANT, KANSAS CITY, MO**

2015 UNDERGRADUATE SCHOLARSHIP PROGRAM

19 scholarships totaling \$110,000

WILLIAM PARK WOODSIDE FOUNDER'S SCHOLARSHIP

1 Anna Bretzke
Missouri University of Science & Technology

THE LUCILLE AND CHARLES A. WERT SCHOLARSHIP

2 John Coffey
The Ohio State University

GEORGE A. ROBERTS SCHOLARSHIPS

3 Mary Cole
University of Akron

4 Ziyin Huang
Drexel University

5 Colin Lunstrum
University of Idaho

6 Rachel Sylvester
The Ohio State University

7 Cyrus Thompson
University of Wisconsin-Madison

WILLIAM & MARY DYRKACZ SCHOLARSHIPS

8 Taylor Brown
University of Alabama at Birmingham

9 Katrina Catledge
Wright State University

10 Nathaniel Griffen
Missouri University of Science & Technology

11 Zach Jensen
University of Wisconsin-Madison

DAVID J. CHELLMAN SCHOLARSHIP

12 Peter Barber
LeTourneau University

LADISH CO. FOUNDATION SCHOLARSHIP

13 Misty Pulcine
University of Wisconsin-Madison

14 Allison Weber
University of Wisconsin-Madison

OUTSTANDING SCHOLAR AWARDS

15 Allison Fraser
Lehigh University

16 Alexander Lark
University of Utah

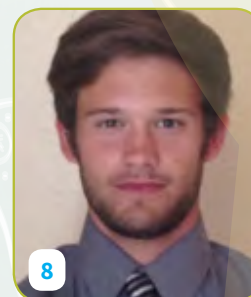
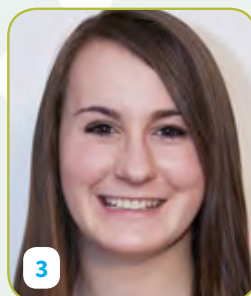
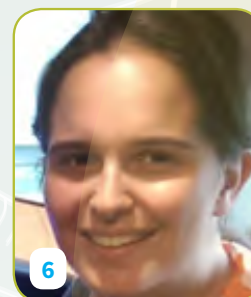
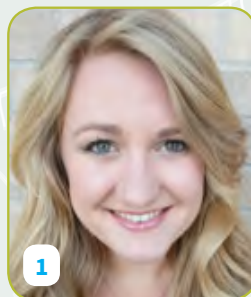
17 Theresa Saenz
Purdue University-West Lafayette

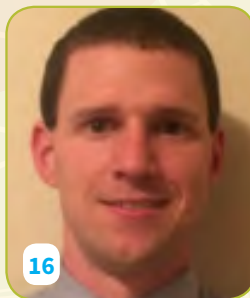
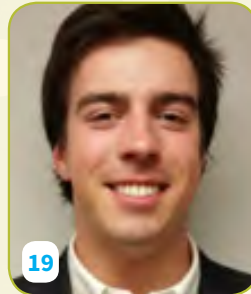
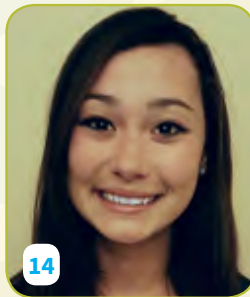
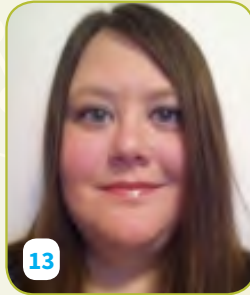
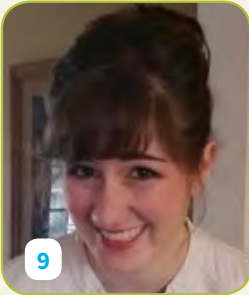
EDWARD J. DULIS SCHOLARSHIP

18 Daniel Balder
University of Minnesota

JOHN M. HANIAK SCHOLARSHIP

19 Alexander Hall
Pennsylvania State University





“Promoting the future of materials science is something I am very passionate about. ASM does such a great job of putting money from generous donors to use. I can’t count the number of times I have heard incoming students say that they became interested in materials engineering after attending the materials camp sponsored by the ASM Foundation. I am so honored to have been selected to receive this scholarship and could not be more grateful for your generosity and commitment to the future of materials science and engineering. I am proud to be a part of such a supportive and intelligent network of people and hope to someday be able to help support up and coming engineers in return for all that ASM has already done for me.”

—ANNA BRETZKE

THANK YOU!

Together we are inspiring students to explore new worlds through hands-on discovery and to become materials pioneers of the future.

“With the help of the ASM Materials Education Foundation Outstanding Scholar Award, I will be able to continue my education at Lehigh in a fulfilling and rigorous department that will prepare me for the metallurgy industry. By continuing my education with the help of such scholarships, I will be able to contribute my skills to the metallurgical field upon graduation and make a difference in the world. Without your support, this would not be possible, so I wish to sincerely thank you for helping to make my dreams a reality.”

—ALLISON FRASER



**ASM MATERIALS
EDUCATION FOUNDATION**

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Materials Park, OH 44073
For more information, please visit
asmfoundation.org