Dear Friends,

Our last report provided insight into the Foundation’s 2018 goals and plans. We move forward with our strategic plan and positioning the Foundation to expand its reach to even more teachers and students, while providing resources to deepen those connections. The work of 2018 set the stage, 2019 is building a solid foundation, and beyond that we see exciting possibilities.

July 2019 marked the 20th Eisenman Materials Camp for students from which our entire Materials Camp® program developed. Taking a look back at the lives we have touched and changed only energizes us more to look ahead to the future.

Thank you,

Glenn S. Daehn

Incredible experience with eye-opening applications of chemistry, materials science, and engineering in the real world. Lots of great information to take back to my colleagues and great materials to share with my students.

- 2018 Materials Camp for Teachers Participant

Analice Sowell received the 2018 Kishor M. Kulkarni Distinguished High School Teachers Award at MS&T

“I work at an independent, college-preparatory school (Memphis University School) in Tennessee that encourages faculty to develop unique elective courses. From my chemistry degree and research chemist background, I knew I needed to teach materials science, but the topic was quite overwhelming. Making it palatable to advanced high school students seemed like a daunting task.

A Google search led me to the ASM Materials Camps for Teachers. I had to do a double take as I read because, in my mind, there was no way that one camp would have everything I needed to start my materials class. In July 2012, I attended the camp and was blown away by the curriculum. It was everything I knew from my background, but in an organized, energizing, and empowering package.

I returned to school confident about launching a course in Materials Science. The camp handbook and sample demonstration materials were life savers that first year. I survived the first year of my course, the students seemed to like it, and I received positive feedback. But I wanted more. Thankfully, the Year Two Materials Camp for Teachers, designed specifically for people like me with Materials Science courses, reinforced the information from the Year One camp and supplemented it with advanced theory.

I’d like to thank the ASM Foundation Board of Trustees and members of ASM International for their continued support of this program that has impacted teachers like me, and students like mine, in schools across the country. I hope your support of this program remains steadfast, and I hope you realize the impact it has on future scientists and engineers worldwide.”

The 2018 Recipient of the George A. Roberts Award is Dr. Kishor M. Kulkarni

Dr. Kishor M. Kulkarni has been active in ASM International for more than 40 years and has served on many committees. He is a past trustee (1994–1997) and became a Fellow of ASM in 1989. In 2007, Dr. Kulkarni and his family made an endowed donation to ASM MEF. It led to the annual Kishor M. Kulkarni Distinguished High School Teacher Award to recognize a high school teacher who has had a significant impact on pre-college-age students. Dr. Kulkarni takes great pride in getting to know the teachers receiving the Award and the teachers appreciate his support and recognition, as well as the ongoing interest he takes in their work. He has benefited from good teachers throughout his career and values education and teachers greatly.

Dr. Kulkarni founded Advanced Metalworking Practices, Inc., the first company in the world to offer feedstock for metal injection molding (MIM) on a commercial basis. He received his B. Tech. in mechanical engineering at the Indian Institute of Technology, Bombay (1965) and his M.S. (1968) and Ph.D. (1972) at the Illinois Institute of Technology in Chicago. Kulkarni has maintained contact with Prof. S. Kalpakjian—his advisor at IIT in Chicago—for over 50 years.

2018 ASM Foundation Pacesetter Award: Chevron

Chevron Energy Technology Company has partnered with the ASM Materials Education Foundation since 2010 to provide financial and volunteer support to the ASM Houston Chapter Materials Camp for Teachers, as well as other similar programs. Chevron also allows Dr. Julio G. Maldonado to serve on the ASM Action in Education Committee and more recently as a Trustee of the ASM Materials Education Foundation.

Chevron is committed to supporting education, particularly STEM education. It supports teacher training, classroom resources, outside-of-school activities, and partnerships with universities all designed to strengthen faculty, curricula and student development.

Chevron Energy Technology Company develops and manages technology to help find and produce new oil and gas reserves, enhance recovery in existing fields, and optimize productivity of downstream assets. The group focuses on research, development and the successful delivery of technical services for Chevron’s worldwide operations as an integrated energy company.

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Thank you,

Glenn S. Daehn

Incredible experience with eye-opening applications of chemistry, materials science, and engineering in the real world. Lots of great information to take back to my colleagues and great materials to share with my students.

- 2018 Materials Camp for Teachers Participant
Undergraduate Scholarship Winners
William Park Woodside Founder’s Scholarship
1) Cesar Guerrero: Worcester Polytechnic Institute
2) Casey Brown: University of Wisconsin-Madison
George A. Roberts Scholarships
3) Mackenzie Keefer: Michigan Technological University
4) Natalia Noriega Pedriza: Drexel University
5) Roman Palvanov: University of Wisconsin-Madison
6) Stuart Shirley: Colorado School of Mines
7) Natalie Wieber: University of Tennessee, Knoxville
8) Ashwin Kumar: University of North Texas
9) Ameralys Correa: South Dakota School of Mines & Technology
10) Drexel University
11) Brooklyn Carlson: University of Wisconsin-Madison
12) John M. Haniak Scholarship
13) Benjamin Blazek: University of Wisconsin-Madison
14) Preston Nguyen: University of Pittsburgh

Undergraduate Design Competition
First Prize Michigan Technological University
Design of an Al-Co-X Alloy for Lightweight, High-Temperature Automotive Applications
Team Members: Aaron Cook, Joshua Dorn, Mark Ilenich, Philip Staublin
Advisors: Paul Sanders, Thomas Wood
Second Prize University of Florida
AlFeSi-based Intermetallic Compounds for High-Temperature Applications
Team Members: Matthew Cohen, Camille Hernandez, Christopher Orozco
Graduate Student Advisors: Sujeily Soto-Medina, Biswas Rijal, Lilong Zhu
Faculty Advisors: Paul Sanders, Thomas Wood
Third Prize Northwestern University
Design of a High-TEC Thermoelectric Material
Team Members: Yvonne Chart, Jason Dong, Ryan Franks, Alexander Furlong, Binghao (Evan) Guo
Graduate Student Advisor: Matthew Peters
Course Instructors: Gregory B. Olson, James M. Rondinelli

Materials Genome Toolkit Competition Winners
- Georgia Institute of Technology
- Louisiana State University
- Montana State University
- Worcester Polytechnic Institute

K-12 Teacher Grants
Bioplastic Extravaganza
Beth Bennett Chittenango Middle School, NY
Preposterior Polymers
Stephen Borba Westside Elementary School, CA
Managing Corrosion
Jeff Clark West Blotton High School, AL
Material Science for the Chemistry Classroom
Mary Coogan Liberty North High School, MO
Materials Science: Consider Careers in the Ceramic and Glass Industry through Experimentation
Ashli Drehner Lewiston-Porter High School, NY
Rocketry Program
Brittany Hartmann Yamhill-Carlton High School, OR
Characterization of Chemical Bonding Through Identification of Material Properties
Sarah Jameson Cretin-Derham Hall, MN
Passive Solar House Project
Michael Mayfield Indiana Academy for Science, Mathematics and Humanities, IN
Living in A Material World
Clintia McNeal Robert A. Black Magnet, IL
Analyzing Microstructures of Materials Using Optical Microscopes
George Mihai Lewis & Clark Middle School, NE

Technical & Community College Scholarships
Curtis Baxter
Henry Ford Community College, Flat Rock, MI
Katrina Bean
Schoolcraft College, Ypsilanti, MI
Samantha Chapman
Schoolcraft College, Novi, MI
Gregory Dinda
Grand Rapids Community College, Grand Rapids, MI
Randall Draastra
Grand Rapids Community College, Wyoming, MI

Materials Science
Jerry Phillips Clyde High School, OH
From Earth to You – Material Science Outreach
Rich Piper Stanberry R-2, MO
Mystery Matter
Cheryl Quinn Honey Creek Community School, MI
Bismuth and Magnetism
Brian Richardson Washington High School, OH
Ancient Roman Concrete
Nathalie Roy Glasgow Middle School, LA
Marvelous Metals
Justin Sickles West Mifflin Area High School, PA
Introducing Upper Elementary Gifted Students to Material Science
Phoebe Smith Pearl River Central Upper Elementary, MS
Examination of Matter Exhibiting Properties between Conventional States
Jaime Tournear Covenant Christian Academy, VA
Claying Around!
Alexandra Vassie Arkansas Arts Academy Middle School, AR
Glass Stations and Raku Project
Carolyn Waugh Bartlett Elementary, KS

Katelyn Hanna
Alpena Community College, Alpena, MI
Christopher Lesak
Lakeland Community College, Kirtland, OH
Michael Pascaris
Schoolcraft College, Livonia, MI
Seth Pettit
Northwestern Michigan College, Traverse City, MI
Kody West
Lakeland Community College, Kirtland, OH
Jarred Willett
West Shore Community College, Manistee, MI
EXPENSES

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 Teacher Resources (Incl. Materials Camps)</td>
<td>$520,509</td>
</tr>
<tr>
<td>Undergraduate Programs</td>
<td>$207,461</td>
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<tr>
<td>K-12 Student Programs</td>
<td>$123,930</td>
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<tr>
<td>Scholarships &amp; Grants</td>
<td>$168,733</td>
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<tr>
<td>Fundraising</td>
<td>$162,482</td>
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<tr>
<td>Administrative / Investment Fees</td>
<td>$160,309</td>
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<tr>
<td>Governance</td>
<td>$76,763</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,360,187</strong></td>
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REVENUE

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Contributions</td>
<td>$1,019,684</td>
</tr>
<tr>
<td>Investment Income</td>
<td>$426,578</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,446,262</strong></td>
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</tbody>
</table>

FINANCIALS

ASM MATERIALS EDUCATION FOUNDATION
STATEMENT OF FINANCIAL POSITION (PRE-AUDIT)
December 31, 2018

ASSETS

<table>
<thead>
<tr>
<th>CURRENT ASSETS</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and short-term investments</td>
<td>$17,438</td>
</tr>
</tbody>
</table>

Accounts Receivable:
- Receivables: $106,260
- Prepaids: $0
- Inventory: $0

**TOTAL CURRENT ASSETS** | $123,698 |

Investments at market value:
- CAMP 1 Funds (fixed interest): $50,931
- Balance of Funds: $11,047,273

**Total Portfolio at Market Value** | $11,098,204 |

Debt Owed by ASMI: $0

**TOTAL ASSETS** | $11,228,821 |

LIABILITIES AND NET ASSETS

<table>
<thead>
<tr>
<th>CURRENT LIABILITIES</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>$19,489</td>
</tr>
<tr>
<td>Borrowings under the line of credit</td>
<td>$460,707</td>
</tr>
<tr>
<td>Deferred Revenue</td>
<td>$0</td>
</tr>
<tr>
<td>Debt Owed to ASMI</td>
<td>$129,242</td>
</tr>
</tbody>
</table>

**TOTAL CURRENT LIABILITIES** | $609,438 |

Restricted Net Assets:
- Temporarily Restricted | $979,594 |
- Permanently Restricted (adjusted) | $1,146,983 |
- Board Designated Restricted | $5,711,033 |
- Total Restricted Net Assets | $7,837,609 |
- Total Net Assets | $10,555,278 |

Unrestricted Net Assets: $1,956,402

**TOTAL LIABILITIES & NET ASSETS** | $11,228,821 |

**This camp has been a fantastic experience not only because of how much I learned, but also because of how enjoyable it was to make friends and spend time with many like-minded people. The instructors are better than any teacher I have had. In just one week, they taught us how to run many tests, examine and recognize metals, use powerful microscopes, and create castings of metals.**

- 2018 Eisenman Camp Participant
LETTER FROM THE EXECUTIVE DIRECTOR

Dear Friends,

As you review this report, please take note of the lives touched by the Foundation in the past year. Through scholarships, grants, Materials Camps, and your donations, thousands of individual students share their journey with materials science education and want to branch out even more. We have shared comments from just a few of those individuals with you here.

New and old manufacturing and technology require skilled engineers and technicians. Materials science can help by using hands-on, real-world projects that can shed light on the path for students.

Teachers feel their teaching has been forever changed. Students get excited about fields they either hadn’t considered or didn’t even know existed. Their stories are inspiring, heartwarming, and full of the hope of people finding their place—and passion—in life.

The Foundation is reaching out to bring that passion to even more in the coming months and years. We are considering or didn’t even know existed. Their stories are inspiring, heartwarming, and full of the hope of people finding their place—and passion—in life.

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Thank you,

Carrie Wilson
Executive Director
ASML Materials Education Foundation

I was hungry for more engaging, relatable demos and lab activities for my students. When this camp was available, I jumped at the chance to attend. This camp met my every expectation and beyond! Before this camp, I was somewhat I was hungry for more engaging, relatable demos and lab activities for my students. When this camp was available, I jumped at the chance to attend. This camp met my every expectation and beyond! Before this camp, I was somewhat I was hungry for more engaging, relatable demos and lab activities for my students. When this camp was available, I jumped at the chance to attend. This camp met my every expectation and beyond! Before this camp, I was somewhat I was hungry for more engaging, relatable demos and lab activities for my students. When this camp was available, I jumped at the chance to attend. This camp met my every expectation and beyond! Before this camp, I was somewhat I was hungry for more engaging, relatable demos and lab activities for my students. 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The ASM Materials Education Foundation continues to find the best ways to support students and teachers now and into the future. We are grateful for the support and vision of so many in developing our plans for the Foundation’s future, including YOU!

As you well know, materials science and engineering is critical to manufacturing, construction, aerospace, medical, and many other fields. Materials Science is constantly growing and evolving, as does the field of education itself. The ASM Materials Education Foundation will mirror those changes and appreciate the support it receives to evolve its work to best serve its mission and, most importantly, students who choose to become materials scientists and engineers.

OFFICERS

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Prof. Diran Apelian, FASM; Immediate Past Chair
Dr. Roch J. Shippy, P.E., FASM, Treasurer
Ms. Carrie L. Wilson, J.D.; Secretary and Executive Director

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Mr. Rowdy Joseph, P.E.
Prof. Peggy E. James, FASM
Prof. Zi-Kui Liu, FASM
Mr. Don Lewon

Ms. William T. Mahoney, CEO of ASM International

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Ms. Ginny Shirk