

# MESD

Materials Engineering & Sciences Division http://www.aiche.org/community/sites/divisions/mesd

# **MESD Division Newsletter**

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#### Notes from the Chair

Dear MESD Members and Friends.

Thank all of you for your efforts, scientific contributions, and participation and engagement in our Division and Areas! We have an exciting meeting planned as part of the AIChE National Meeting in November. Below I share highlights of recent activities in MESD and the upcoming meeting in chronological order for quick reference as you plan your schedule.

- Mentoring: MESD is excited to launch a new mentoring effort led by Amanda Koh (U. Alabama), who serves as our first Mentoring Chair. Please fill out the survey by <u>November 1<sup>st</sup></u> to share your thoughts on MESD mentoring opportunities; this information will be used to craft the program: <a href="https://universityofalabama.az1.qualtrics.com/j">https://universityofalabama.az1.qualtrics.com/j</a> fe/form/SV 732MhD7YaLKsSEK
- Voting: The MESD election is open, and please vote by November 5<sup>th</sup>! Biographies and statements are included in the online ballot, as well as in this newsletter: <a href="https://www.aiche.org/election/476">https://www.aiche.org/election/476</a> We are excited for the broad engagement and leadership of those running. A special thanks to MESD Directors Prof. Cole DeForest (U. Washington), Prof. Jorge Almodovar (U. Arkansas; UMBC starting 2024), and Past Chair Julie Champion (Georgia Tech) for serving on the nominating committee.
- Engaging the next generation: MESD is hosting a workshop entitled "Materials Engineering and Sciences in AIChE" at the 2023 AIChE Annual Student Conference on Saturday, November 4, 2:40-3:25 PM led by 1<sup>st</sup> and 2<sup>nd</sup> Vice Chairs Rafael Verduzco (Rice U.) and Adrianne Rosales (U. Texas-Austin) with Albert Liu (U. Michigan), Gaurav Giri (UVA), Ralm Ricarte (FAMU-FSU), and Helen Zha (RPI). Please share this with trainees. In this arena, thank you also to Evan Wujcik (U. Maine) for serving as our first Social Media Chair to assist with making and maintaining connections amongst the MESD community.
- Programming: MESD Areas have planned an excellent program including plenary, graduate

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award, future faculty, industrially-themed, and other special sessions starting mid-day Sunday, November 5<sup>th</sup>, through Thursday, November 9<sup>th</sup>: https://aiche.confex.com/aiche/2023/meetingapp.cgi/Program/3305 A special thanks to 1<sup>st</sup> Vice Chair Rafael Verduzco (Rice U.) and Area Chairs Samanvaya Srivastava (UCLA, 8A), Helen Zha (RPI, 8B), Nian Liu (Georgia Tech, 8D), Matthew Crane (Colorado School of Mines, 8E), and Zhe Wang (Oakland U., 8F) for their outstanding efforts!

- Poster session: The MESD poster session is Tuesday, November 7<sup>th</sup>, 3:30-5:00 PM, and I encourage everyone to attend. Thank you to MESD Directors Rachel Letteri (U. Virginia) and Kelly Burke (U. Connecticut) for leading the poster session organization and judging. Attending the meeting? Please consider volunteering as a judge for the student poster session (link below). It's a great way to serve and interact with future leaders! <a href="https://virginia.az1.qualtrics.com/jfe/form/SV-3">https://virginia.az1.qualtrics.com/jfe/form/SV-3</a> KuWXNnmS8KF7xA
- Business meetings: I hope that each of you can join us for the MESD (11:00 AM-12:00 PM) and Area business meetings (6:00-7:00 PM) on Tuesday, November 7<sup>th</sup>. We will be holding hybrid meetings so that all can participate whether in person or virtually. Locations and Zoom links will be in the online program. The MESD business meeting is open to anyone interested in learning more about Division operation and sharing their thoughts, and the Area business meetings provide opportunities to give input into future programming, elect Area leaders, and volunteer to chair sessions.
- MESD awards & plenary: Warm congratulations to our Division award winners who will be honored during the Division Plenary on Wednesday, November 8<sup>th</sup>, 8:00-10:30 AM at the national

meeting. The Braskem Award for Excellence in Materials Engineering and Science will be presented to Prof. Benny Freeman (U. Texas-Austin) "For outstanding contributions to materials engineering and science of polymers for gas and liquid separation membranes, training of students, and extensive service." The Owens-Corning Early Career Award will be presented to Prof. Matthew Webber (Notre Dame) "For contributions to the development and use of supramolecular chemistry to advance the science and function of soft matter. biomaterials, and drug delivery." Both award winners were selected from a pool of outstanding candidates. We appreciate the service of Prof. Michael Tsapatsis (Johns Hopkins U.) and Prof. Chris Ellison (U. Minnesota) and Prof. Lisa Hall (OSU) in leading these award committees. The Division Plenary will also feature talks by Samson Jenekhe (U. Washington), Esther Takeuchi (Brookhaven), and Ximin He (UCLA). We are looking forward to celebrating our award winners and excellence in materials research with you at this impactful MESD Plenary session.

Increasing opportunities for engagement: The MESD Executive Council wants to provide opportunities for Areas to further engage with and grow their membership. In particular, there are opportunities for synergy between membership engagement and growth and achieving broader AIChE goals of increasing and supporting diversity, equity, and inclusion within the society and discipline (https://www.aiche.org/equity-diversity-inclusion/statement). In this context, MESD has launched a new funding mechanism by which Areas can apply for match funding to facilitate engagement activities. We look forward to continuing these efforts and refining them.

I am grateful to the MESD Executive Council and Area Chairs and Co-chairs for your service to and leadership within MESD. I have enjoyed working with each of you and appreciate your dedication. I especially want to thank Past Chair Julie Champion who has continued to go above and beyond the call of duty to help with MESD leadership and support this past year – Julie, I could not have done this without you and your outstanding mentorship and support. I look forward to continuing to be part of this vibrant MESD community led by Rafael Verduzco (Rice U.) and Adrianne Rosales (U. Texas-Austin).

Smil W. Klozis

April Kloxin (U. Delaware) Chair, MESD 2022-2023

### **2022 MESD NATIONAL MEETING HIGHLIGHTS**

# **MESD Plenary and Poster Awards**

At the 2022 MESD Plenary, Greg Rutledge (MIT) received the Braskem Award for Excellence in Materials Engineering and Science, and Letian Dou (Purdue) received the Owens Corning Early Career Award. Congratulations to these leaders in our field!





**MESD Award Winners.** Top: Greg Rutledge (MIT, left center) receiving plague for the Braskem Award for Excellence in Materials Engineering and Science 2022 with Kim McLoughlin (Braskem, right center), Past Chair Brad Olsen (MIT), and Chair Julie Champion (Georgia Tech) *Bottom*: Letian Dou (Purdue) receiving plague for the Owens Corning Early Career Award 2022 with Olsen and Champion.

Graduate Student Poster Awards were selected from outstanding contributions from all five Areas within MESD: Polymers (8A), Biomaterials (8B), Inorganic Materials (8D), Electronic and Photonic Materials (8E), and Composites (8F).

1<sup>st</sup> Place – Christopher Ruben; University of Iowa; 8B. *Title: Protein resistant polymer coatings for gold nanoparticles and surfaces.* 

2<sup>nd</sup> Place – Samhita Kattekola; City Collage of New York; 8E. *Title: Engineering a colloidal metamaterial comprising of metamaterial-capped Janus particles for light harvesting applications in cancer detection and therapeutics.* 

3<sup>rd</sup> Place – Emily Diep; University of Masschuetts-Amherst; 8B. *Title: Crosslinked alginate-based nanofibers for biomedical applications.* 



**MESD Poster Award Winners.** Christopher Ruben (left) and Emily Diep (right) receiving their Graduate Student Poster Award certificates.

### Area 8A Polymers

2022 Chair: Bryan Beckingham (Auburn University) 2023 Chair: Samanvaya Srivastava (UCLA) Co-Chair: Shudipto Dishari (U. Nebraska-Lincoln)

MESD Area 8A had an exciting program at the 2022 AIChE National Meeting. Two plenary sessions at the

annual meeting on Emerging Topics in Polymer Science and Engineering were chaired by Shudipto Dishari (U. Nebraska-Lincoln), Michelle Calabrese (U. Minnesota), and Siamak Nejati (U. Nebraska). Speakers included Danielle Mai (Stanford U.), Xiaodan Gu (U. Southern Mississippi), Timothy Scott (Monash U.), Blair Brettmann (Georgia Tech), LaShanda Korley (U. Delaware), Juan De Pablo (U. Chicago), Jovan Kamcev (U. Michigan), Chibueze Amanchukwu (U. Chicago), Burcu Gurkan (Case Western U.), and Muzhou Wang (Northwestern U.).

A highlight of the program was the annual AIChE Excellence in Polymers Graduate Research Symposium, chaired by Danielle Mai (Stanford U.) and Ralm Ricarte (FAMU-FSU). The best presentation awards went to Pam Cai (1<sup>st</sup>, Stanford U.), Mengxue Cao (2<sup>nd</sup>, Yale U.), and Justin Bui (3<sup>rd</sup>, UC Berkeley). Congratulations to all the finalists (pictured below)!



AIChE Excellence in Polymers Graduate Research Symposium Finalists. Alexandra Khlyustova, Justin Bui, Ying Tan, Shreyas Pathreeker, Mengxue Cao, Yu Zheng, Carlos Cordeiro, Alexandra Marnot, Entao Yang, and Pam Cai.

Area 8A also sponsored a Rising Stars in Industry session (picture below), chaired by William Liechty (Dow), Mayank Misra (Cornell U.), and Evan Wujcik (U. Maine). The speakers included Carla Thomas (3M), Praveen Agarwal (Dow), Pawel Krys (PPG), Michael Petr (Dow), and Michelle Sing (Braskem).



### Area 8B Biomaterials

2022 Chair: Adrianne Rosales (U. Texas Austin)

2023 Chair: Helen Zha (RPI)

Vice-Chair: Catherine Fromen (U. Delaware) Co-V-Chair: Handan Acar (U. Oklahoma)

The 2022 8B program included scientific sessions for faculty candidate sessions designed to help applicants secure independent positions, a graduate student award session to honor outstanding up-and-coming researchers, and a plenary session highlighting the work of leaders in the field. The plenary session was organized by Steven Caliari (U. Virginia), Catherine Fromen, Shreyas Rao (U. Alabama), and Michael Gower (U. South Carolina) and included keynote talks from Matthew Becker (Duke), Kaushal Rege (Arizona State), and Efrosini Kokkoli (Johns Hopkins).

In the Biomaterials Graduate Student Award Session, chaired by Kyle Lampe (U. Virginia), Ramya Kumar (Colorado School of Mines), and Nisarg Shah (UC San Diego), the top three students were awarded prizes. TA Instruments, *Biomaterials Science* (Royal Society of Chemistry), and *Journal of Biomedical Materials Research Part A* (Wiley) are acknowledged for generously sponsoring these awards. First place was awarded to Sihan Yu (Notre Dame), second place to Logan Morton (U. Texas-Austin), and third place tie was awarded to Kartik Bomb (U. Delaware) and Giovanni Bovonne (ETH Zurich). Congratulations to all of the participants!

Translation of biomaterials was also highlighted in an invited session on Biomaterials in Industry and the Clinic, chaired by Eun Ji Chung (U. Southern California), Forrest Kievit (U. Nebraska), Helen Zha (RPI), and Julia Vela Ramirez (Merck). Keynote speakers included Joseph DeSimone (Stanford), Amit Khandhar (HDT Bio), and Omid Veiseh (Rice University).



**Scene from the 8B Social Mixer.** The 8B community gathers over food and drinks at the Crown Public House near the Phoenix Convention Center.

### Area 8D Inorganic Materials

2022 Chair: Chen Zhang (U. of Maryland) 2023 Chair: Nian Liu (Georgia Tech) Vice-Chair: Gaurav Giri (U. Virginia)

In 2022 Area 8D held a graduate student award session with prizes generously sponsored by Chevron and organized by Kumar Varoon Agrawal (EPFL) and Satish Nune (PNNL). First place was awarded to Adam Mallette (U. Houston), second place to Shaoxian Li (EPFL), and third place to Abhishek Sose (Virginia Tech). Congratulations to all the students!

# Area 8E Electronic & Photonic Materials

2022 Chair: Carissa Eisler (UCLA)

2023 Chair: Matthew Crane (Colorado School of

Mines)

Co-Chair: Elizabeth "Liza" Lee (UC Irvine)

At the 2022 Annual AIChE meeting, Area 8E hosted a graduate student award session, which was graciously sponsored by the Journal of Vacuum Science and Technology A, organized by Matthew Crane and Elizabeth Lee. Duyen Tran from the University of Washington won First Place for her presentation on carrier transport in semiconductor ladder polymers. Solomon Oyakhire and Julian Vigil both from Stanford University won Second and Third place, respectively. Solomon recently accepted a position at the Georgia Institute of Technology as an assistant professor. Also at the AIChE Annual meeting, we welcomed leaders from industry and academia in our plenary session, which included Gautam Yadav, John Ekerdt, and Jin Zhang, organized by Carissa Eisler. In 2023, Area 8E will host an area meet up at the annual meeting. Please contact Matthew Crane for details.





Pictures from Area 8E at the 2022 Annual AIChE meeting. Top: Graduate student award winners Solomon Oyakhire, Duyen Tran, and Julia Vigil. Bottom: Plenary Speakers Gautam Yadav, John Ekerdt, and Jin Zhang.

# **Area 8F Composites**

2022 Chair: Amanda Koh (U. Alabama) 2023 Chair: Zhe Wang (Oakland U.) Co-Chair: Ben B. Xu (Northumbria U.) Co-Co-Chair: Albert Liu (U. Michigan)

Area 8F had sessions on topics including Multifunctional composites, Fibers and Coatings:1D and 2D Composites, Advanced Manufacturing and Processing of Composites, Sustainable composites, and Bio-inspired composites.

#### Champion Recognized for Service to MESD

We thanked Julie Champion for her service to MESD as Chair (2021-2022), Vice Chair (2020-2021), and 2<sup>nd</sup> Vice Chair (2019-2020) at the conclusion of the 2022 Executive Council meeting. Champion's thoughtful and visionary leadership and outstanding efforts have steered MESD through the challenging times of the pandemic and continued to grow MESD in new directions with increasing opportunities for engagement and progress on the IDEAL path.



# Biographical Sketches and Statements of Nominees

# CANDIDATES FOR 2<sup>ND</sup> VICE CHAIR (VOTE FOR 1)

# Bryan Beckingham, Auburn University



Bio: Bryan Beckingham is an Associate Professor of Chemical Engineering at Auburn University Director of the Auburn for University Center Polymers and Advanced Composites. His research group focuses leveraging synthetic polymer chemistry and materials characterization

to inform the design of novel polymer materials for target applications, with particular emphasis on polymer membranes, hierarchically structured matter, and additive manufacturing polymer functional polymer systems.

He received his B.S in Chemical Engineering from Clarkson University in 2007, his Ph.D. degree in Chemical and Materials Engineering from Princeton University in 2013. He was then a Materials Postdoctoral Fellow at Lawrence Berkeley National Laboratory as a member of the Material Science Division and the Joint Center for Artificial Photosynthesis prior to joining Auburn University in 2016. His work has been recognized with a US Dept of Energy Early Career Award, the 2021 J. Polymer Science Young Investigator Special Issue, and as part of the Industrial Engineering & Chemistry Research's 2021 Class of Influential Researchers, among other accolades. His undergraduate teaching has also been recognized as invited participant of the National Academy of Engineering: Frontiers of Engineering Education Symposium and he has served as vice-chair and chair of the chemical engineering division of the ASEE Southeast region. Bryan has been a member of AICHE since 2011, chaired or co-chaired sessions in 8A Polymers, and has previously served as Vice-chair and Chair of 8A Polymers.

Candidate Statement: I greatly enjoyed previously serving as Vice-Chair and Chair of 08A and it would be

an honor to continue to serve AIChE MESD as 2nd Vice Chair and eventually Chair of AIChE MESD. AIChE has been an essential part of my professional career since I was a graduate student. As a faculty, I gained increasing appreciation for the opportunities AIChE provides and I am highly motivated to continue to foster and grow those opportunities. As 2nd Vice Chair, I would like to strengthen our communication across the different sections of MESD to promote networking between members of the different Areas, to build stronger coordination and broader participation in efforts organizing Topical Conferences, special sessions, strong plenary sessions, and co-listing of sessions. I would also like to assist Area Chairs with fundraising for their individual Areas. I look forward to this opportunity to serve the MESD and greater AIChE communities.

# Maria L. Carreon, University of Arkansas



Bio: Maria L. Carreon is Associate professor at the Ralph E. Chemical Engineering Department at University of Arkansas. She received her B. S. in Chemical Engineering at Universidad Michoacana in Mexico in 2007. In 2015 she obtained her Ph.D. in Chemical Engineering from the University of Louisville. She has served

as Assistant Professor in several higher education institutions including the University of Tulsa, South Dakota School of Mines & Technology, and the University of Massachusetts, Lowell. Her research interests are focused on the rational design of materials at different scales ranging from nanowires to thin films, graphene, zeolites, MOFs (Metal Organic Frameworks), meso- and microporous oxides, perovskites. and hydrotalcites for several environmental and functional applications. A recent focus in her lab is the development of plasma catalysis an alternative for the electrification and decentralization of chemical processes. She is an active member of the Mexican National Science Council (CONAHCYT) and editor of IOP SciNotes. Among the distinctions for her work, Maria has received two Kokes Awards, the Conn Center Fellowship award, and the NSF Career Award.

Candidate Statement: I would be honored to serve in the position of 2<sup>nd</sup> Vice Chair for AIChE MESD. AIChE

has played an essential role in my professional development being instrumental in launching my academic career in 2015. I have been involved in the Inorganic Materials Area (8D) since I was a graduate student. During the last few years, I have chaired and co-chaired different sessions at AIChE, specially in plasma catalysis a research area where materials rational tailoring plays a crucial role. I have given contributed and invited talks and promoting my student's involvement into this remarkable professional engineering community. Materials design development has advanced the field of Chemical Engineering over the years and will continue to do so in different strategic areas such as catalysis or separations just to name a few. I would be happy to work towards the efforts within MESD AIChE. I aspire to the continuous strengthening of the MESD community by leveraging the current leadership, making innovative contributions, and ensuring a safe and inclusive experience for all, with particular emphasis for our students from underrepresented populations.

# Po-Yen Chen, University of Maryland, College Park



Bio: Po-Yen Chen is an Assistant Professor in the Department of Chemical and Biomolecular Engineering at the University of Maryland (UMD), College Park. He is also an affiliate faculty member of the Maryland Robotics Center (MRC). He earned a B.S. degree in Chemical Engineering from the National Taiwan

University (NTU) and a Ph.D. in Chemical Engineering from the Massachusetts Institute of Technology (MIT). Prior to joining UMD in 2021, Po-Yen served as an Assistant Professor in the Department of Chemical and Biomolecular Engineering at the National University of Singapore (NUS) for 2 years. He also held the position of Hibbitt Postdoctoral Fellow at Brown University for 2 years.

Po-Yen's research focuses on the integration of robotics and machine learning to expedite the discovery and development of functional materials. His areas of expertise include stretchable electronics, sustainable nanocomposite innovations, conductive aerogels, and smart soft robots. He has been recognized for his contributions and achievements, including being named as Innovators Under 35 in Asia

by MIT Technology Review (MITTR) and receiving the AIChE 35 under 35 Award in 2020. He has also received the John C. Chen Young Professional Leadership Scholarship from AIChE and was selected as an Innovative Early-Career Engineer by the National Academy of Engineering for their annual U.S. Frontiers of Engineering Symposium. Currently, Po-Yen serves as the chair of AIChE National Capital Section.

Candidate Statement: I am honored to be considered for the position of 2nd Vice Chair for AIChE MESD. If elected. I aim to contribute to the development and implementation of new research projects and promote the participation of early career chemical engineers. My goal is to create more professional development opportunities, increase the visibility of the materials research community, and facilitate communication within AIChE MESD. To achieve these objectives. I plan to leverage my experience in developing AIChE workshops to enhance professional development opportunities at the annual meetings and through monthly webinars. I am committed to providing mentorship opportunities and promoting MESD participation among undergraduates. graduate students. post-doctoral researchers. assistant professors, and early-career engineers in industry and governmental labs. Additionally, I will prioritize increasing the visibility of the materials community's research through new programming initiatives. One of these initiatives includes expanding the Faculty Candidate sessions, which will allow engineers seeking jobs to showcase their work and provide a convenient session for those who are hiring. Furthermore. I intend to update the website with the latest developments within the MESD Division and community, and regularly inform members about new initiatives. In terms of new activities, I will focus on forming partnerships and implementing efforts that promote an environment of diversity and inclusion in MESD. Again, I am excited about the opportunity to serve as 2nd Vice Chair for AIChE MESD and contribute to the growth and success of the division.

# Matthew G. Panthani, Iowa State University



Bio: Matthew G. Panthani is an Associate Professor and Herbert L. Stiles Faculty Fellow in Department of Chemical and Biological Engineering at Iowa State University, where he began in 2014. He received his PhD in Chemical Engineering Western from Case Reserve University

2006. He earned a PhD in Chemical Engineering under the guidance of Dr. Brian A. Korgel from the University of Texas at Austin. He has been recognized for excellence in mentoring and was awarded the Outstanding Mentorship Award from ISU's Research Experience for Teachers Program. Matthew has been active in AIChE and MESD, having served as a session chair each year since 2013, and as a Chair and Vice-Chair of MESD Area 8E (Electronic and Photonic Materials). Outside of AIChE, he has served in other leadership positions, including serving on the Executive Committee for Argonne National Laboratory Center of Nano and Molecular Science, and the advisory board for the Ames Laboratory Sensitive Facility. My research Instrument on semiconductor materials has been funded by the NSF, DOE, and DoD. He and his lab have been recognized with research honors such as the NSF CAREER Award and Air Force Office of Scientific Research Young Investigator Program. In 2022, he received the Midcareer Achievement in Research Award from Iowa State University College of Engineering.

Candidate Statement: I am happy to be a candidate for the MESD Vice Chair position. If elected to this role, my goals are to:

- ensure that decisions consider the broad range of experiences and backgrounds of MESD by focusing on accessibility and inclusivity
- increase the visibility of MESD researchers and sessions; this will be done through increased activity on social media, reducing redundancy in programming, and identifying new opportunities for co-sponsoring sessions within and outside of MESD
- 3. identify opportunities for growth by increasing membership from industry and national laboratories.

I have been involved with AIChE, having joined my undergraduate student chapter in 2003 and attending my first annual meeting in 2005. I have chaired numerous AIChE sessions and served as the MESD Area 8E Vice chair in 2015 and Area 8E Chair in 2016. During this time, Area 8E reached a peak in abstract submissions and sessions. As Area 8E Chair, I received MESD seed funding to pilot the Electronic and Photonics Graduate Student Award Session, and helped develop a relationship with the Journal of Vacuum Science and Technology to sponsorship for this session since 2017. I hope to bring my previous leadership experiences to help contribute towards MESDs sustained growth, while ensuring that inclusivity and diversity are prioritized when shaping future directions.

# Amir Sheikhi, The Pennsylvania State University



Bio: Amir Sheikhi is an Assistant Professor Chemical Engineering and Biomedical Engineering (by courtesy) at Penn State. In August 2019, he founded the Bio-Soft Materials Laboratory (B-SMaL) to tackle some of the challenges of the 21st century in biomedicine and the environment designing novel bio-based

colloidal systems via micro- and nanoengineering techniques. Amir's lab consists of 11 graduate students, 2 postdocs, and more than 15 undergraduate researchers, funded by NIH (NHLBI R01, NINDS R01, and NIBIB R56), ACS PRF DNI, Meghan Rose Bradley Foundation, Center for Lignocellulose Structure and Formation (CLSF), Penn State Institutes of Energy and the Environment (IEE), Benkovic Research Initiative, etc. Amir's research has been featured in more than 70 publications, 70 seminars, and 15 reports of invention/patent applications with recognition by over 50 news media outlets. He is the recipient of several major awards, including the AlChE's 35 Under 35, 2022 ACS Unilever Award for Outstanding Young Investigator in Colloid & Surfactant Science, The John C. Chen Young Professional Leadership Scholarship, and The UNIFOR Global Research Fellowship. Recently, Amir was named as one of the 9 emerging leaders in Chemical and Biomedical Engineering worldwide, featured on the cover of the Inaugural "Futures" Issue of Bioengineering & Translational Medicine journal. Amir earned his Ph.D. in Chemical Engineering at McGill University and continued to complete two years of postdoctoral research on colloids and macromolecules at McGill Chemistry. Before joining Penn State, Amir was a postdoctoral fellow in Bioengineering at Harvard Medical School and UCLA, working with Ali Khademhosseini.

Candidate Statement: I still remember my early days as an undergraduate student in Chemical Engineering at the University of Tehran, Iran--knowing a lot about the AIChE conferences but never being able to attend due to the visa restrictions. Probably, one of the biggest wishes of that time was to be able to present at an AIChE annual meeting. This was still impossible when I was a PhD student in Canada! The wish came true when I moved to the US to conduct my postdoc at Harvard Medical School. I attended my first AIChE conference several years ago and ever since have been involved in several activities, including chairing 3 sessions for 08B (Biomaterials) per year, being a liaison for the "Materials Engineering & Sciences Division" (Polymers), serving the AIChE's flagship journal in biomedical engineering (Bioengineering and Translational Medicine, BioTM) as an Associate Editor, and being involved in the John C. Chen Young Professional Leadership network.

As I stand before you today, seeking the opportunity to serve as your 2<sup>nd</sup> Vice Chair, I am deeply humbled by the magnitude of the role and the trust that accompanies it. My journey in the world of chemical engineering, combined with my longstanding association with AIChE, has solidified my commitment to advancing our profession and ensuring that AIChE remains at the forefront of innovation, education, and advocacy. The sequential structure of this leadership role – evolving from 2<sup>nd</sup> Vice Chair to Past Chair over a span of four years - is testament to the Institute's emphasis on continuity and cohesive leadership. The foresight in this progression ensures that the organization's goals remain consistent, while allowing the space for adaptability and growth. If chosen, here is my commitment to you:

Collaboration: Leveraging the insights from both the current and past chairs, I intend to champion a collaborative approach, ensuring that our strategies are both forward-thinking and deeply rooted in the legacy of AIChE's success.

Adaptability: Recognizing that our field is constantly evolving, I aim to keep AIChE responsive to the changing needs of our members and the broader industry.

Member-centric Leadership: Every decision made will place our members at the center. Your aspirations, challenges, and feedback will be the driving force behind our initiatives.

Engagement: Ensuring AIChE continues to be an active, engaging platform for all chemical engineers – from students to seasoned professionals – by promoting networking, educational opportunities, and mentorship.

Ethical Leadership: Upholding the highest standards of professional ethics, transparency, and accountability in all decisions and actions.

My vision for AIChE is an inclusive, innovative, and impactful community that not only represents but also shapes the future of chemical engineering. I am deeply passionate about our shared mission and, with your support, am eager to channel that passion into tangible results for our organization and the broader chemical engineering community. Your trust, collaboration, and engagement will be vital in achieving this vision. Together, we can ensure that AIChE remains a beacon of excellence and a platform that empowers every chemical engineer to reach their fullest potential. Thank you, and please feel free to reach out to me if have questions/suggestions: vou any sheikhi@psu.edu

# Sebastian L. Vega, Rowan University



Bio: Sebastian L. Vega is an Assistant Professor in the Department of Biomedical Engineering at Rowan University secondary appointments in the Department of Chemical Engineering at Rowan University and in Department the of Orthopaedic Surgery at Cooper Medical School of

Rowan University. Sebastian's lab focuses on the design of tunable biomaterials to control cell-material interactions with applications in cell manufacturing and regenerative medicine. Sebastian's research has been recognized with a Cellular and Molecular Bioengineering (CMBE) Young Innovator Award, an NSF CAREER Award, and has active NSF and NIH funding. Sebastian completed two B.S. degrees in Chemical Engineering and Biomedical Engineering at Carnegie Mellon University, received his Ph.D. in Chemical and Biochemical Engineering at Rutgers

University, and completed his postdoctoral training in Bioengineering at the University of Pennsylvania. As a Chilean native, Sebastian is passionate about initiatives that promote diversity, equity, and inclusion (DEI). Sebastian is the Chair of Outreach & Community Engagement in his department, the Treasurer for the BMES (Biomedical Engineering Society) Council of Diversity, and is a member of Rowan University's DEI Steering Committee. He also runs in-person and virtual programs that to-date have provided over 200 diverse high school students with virtual opportunities to learn about biomedical and chemical engineering, and to conduct in-person research in engineering science labs.

Candidate Statement: I would be honored to serve as the Second Vice Chair of MESD. As Second Vice Chair, I would work closely with the other chairs (1st, current, past) to gain a clear understanding of what our division's strengths and weaknesses are, with a focus on increasing membership and participation within MESD. Material scientists in biomedical engineering are underrepresented in MESD, and I believe that establishing a virtual seminar series that provides materials and biomaterials scientists with opportunities to present their work and connect with MESD members will be impactful. I am also thrilled at the opportunity to increase our presence in AIChE's K-12 Community. If given the opportunity, I look forward to serving the MESD and AIChE community.

# Evan Wujcik, University of Maine







Bio: Evan K. Wuicik is currently an Assistant Professor in the Department of Chemical and Biomedical Engineering and Advanced Structures & Composites Center (8/2022-present) at The University of Maine [Orono, ME, USA]. He

was previously an Assistant Professor in the Department of Chemical and Biological Engineering (1/2017-7/2022) at The University of Alabama [Tuscaloosa, AL, USA]. Prior to that he was an Assistant Professor of Chemical Engineering

in the Dan F. Smith Department of Chemical Engineering (8/2013-12/2016) at Lamar University [Beaumont, TX, USA]. Prof. Wujcik obtained his Ph.D. in Chemical and Biomolecular Engineering from The

University of Akron [Akron, OH, USA] (2013) as well as his M.B.A. (2011), M.S. in Chemical Engineering (2009), B.S. in Applied Mathematics (2010), and B.S. in Chemical Engineering (2008) from The University of Rhode Island [Kingston, RI, USA]. He directs the Materials Engineering And Nanosensor [MEAN] Laboratory, where his research interests include advanced materials. composites, polymers. wearables, fibers, water quality engineering, and electrohydrodynamics. This work is/has supported by NSF, DoD, DoE, EPA, Dol, and DoEd funds. He is a Founding Associate Editor for Advanced Composites & Hybrid Materials [Springer-Nature, 2023] IF: 20.1]. Prof. Wujcik has been an active member of AIChE since 2005 as an undergraduate, graduate, professional, and then Senior Member (2016-present). Evan is also an AIChE/ASEE-trained Safe Zone Ally (Level 2), through AIChE's Diversity & Inclusion initiative. Within MESD, he has presented in or chaired sessions in 08A, 08D, 08E, 08F. In MESD, he has served as a Division Director (2021-2022 Annual Meetings) and is the current social media manager. As a student, Evan was the recipient of the 2007 AIChE Northeast Regional Outstanding Student Award, a 2012 AIChE NSEF poster session award, and—as a faculty member—is the recipient of a 2020 NSF CAREER Award [MPS/DMR/Electronic and Photonic Materials], was honored to be a 2020 AIChE Sensors Topical Plenary Speaker, and was inducted into the National Academy of Inventors in 2022. He is also active on Twitter. so give him а follow: @Evan\_K\_Wujcik

(https://twitter.com/Evan\_K\_Wujcik).

Candidate Statement: AIChE has played a substantial part in my professional life for nearly two decades. The leadership roles—at the area and divisional levels—in MESD I have undertaken have only left me wanting to be more involved in 08 service and continue working with my amazing MESD colleagues. During my rotation as the Vice (2017), Acting (2018), and Past (2019) Chair of 08F-Composites, I strove to have more invited speakers from diverse backgrounds and paths in 08F. In addition, I encouraged and sought more diverse recruits for 08F area leadership for a more inclusive area. During my 1st year as MESD Director (2021 meeting), I developed the online MESD Poster Session Judge Solicitation Form and widely distributed this through social media outlets to reach a broader MESD audience and promote inclusion, diversity, equity, and learning within the MESD community. As a 2<sup>nd</sup> year MESD Director (2022 meeting) I was tasked with orchestrating the—always spectacular—poster session. I will try to build upon the momentum of my

previous years of service as an MESD Director to inspire, engage, retain, and advance future talent—particularly, early career and diverse scientists and engineers—in a more inclusive divisional space. As 2<sup>nd</sup> Vice Chair of MESD—and in future roles as Vice Chair, Chair, and Past Chair—I will strive to support and celebrate AIChE's advancement along an IDEAL (Inclusion, Diversity, Equity, Anti-Racism, Learning) path to improve divisional programming for all and make leadership positions more accessible to underrepresented groups. Our intersectionality is key to advancing our field and fostering a collaborative environment amongst colleagues in MESD. I look forward to all future chances to serve the MESD and greater AIChE communities.

# CANDIDATES FOR DIRECTOR (VOTE FOR 2)

# <u>Claribel Acevedo-Vélez, University of Puerto Rico-Mayaquez</u>



Bio: Claribel Acevedo-Vélez is an Associate Professor of Chemical Engineering at the University of Puerto Rico-Mavaqüez (UPRM). She earned a B.S. degree in Chemical Engineering UPRM and a Ph.D. in Chemical and Biological Engineering at the University of Wisconsin-Madison, working under the

guidance of Prof. Nicholas L. Abbott. Prior to joining UPRM as a faculty member, she worked as an associate research scientist and certified Six Sigma Green Belt project leader at The Dow Chemical Company. At Dow, she specialized in the development of surfactant formulations for consumer products and Enhanced Oil Recovery. Her research interests focus on colloids and interfacial phenomena, particularly on the study of the interactions and assembly of surfacechemically active materials and engineered nanoparticles at interfaces. Her research group designs liquid crystal (LC) droplet-based sensors that are decorated with nanoparticles, which substantially improve the colloidal stability of the LC droplets while enhancing detection sensitivity and selectivity.

Candidate Statement: My first experience within the Materials Engineering and Sciences Division (MESD) traces back to the 2005 AIChE Annual Meeting (Cincinnati, OH). At that time, I was an undergraduate

student pursuing my degree in Chemical Engineering at UPRM. At the conference, I had the opportunity to present my research poster titled "Synthesis and Characterization of Nickel Nanoparticles" at the MESD Annual Student Poster Competition; my poster was awarded First Place. This experience marked a pivotal moment in my undergraduate journey and provided the foundation for my career in materials research.

Fast forward, I am honored to be considered for the role of Director of MESD. My primary objective is to give back to this division by collaborating closely with the Executive Committee to achieve division goals. This includes active involvement in programming AIChE's technical meetings, as well as coordinating awards that recognize the remarkable achievements of chemical engineers in our area. Over the past five years, I have been engaged as a session chair, cochair and presenter within Engineering Sciences and Fundamentals, Interfacial Phenomena (Area 1C). I am enthusiastic about leveraging this experience to contribute to MESD's programmatic initiatives.

Participating in AIChE National Meetings has been key in my professional development and has expanded my professional network. I believe that early career scientists, particularly students and postdocs, should be encouraged to participate in divisional activities that foster their professional growth and contribute to the division, which will help creating a robust pipeline of future leaders for MESD. I take pride of mentioning how my mentorship has guided several of my undergraduate research students toward achieving national awards such as the NSF-GRFP. I am committed to enhancing the engagement of early career underrepresented minorities within our division. This approach will contribute to the development of a diverse and inclusive community and strengthen the STEM workforce. I will collaborate closely with the Minority Affairs Committee, LatinXinChE, LGBTQ+ Allies Initiative, and Women in Chemical Engineering to ensure that MESD fosters a supportive and inclusive environment within AIChE, especially for students from underrepresented backgrounds. I look forward to the opportunity to serve to MESD and its members. Thank you for your kind consideration.

# Rizia Bardhan, Iowa State University



Bio: Rizia Bardhan is an Associate Professor in Department the of Chemical & Biological Engineering at Iowa State University. She serves as also the Associate Editor of ACS Applied Materials and Interfaces. She started her independent career at Vanderbilt University, she was where Assistant Professor.

Rizia received her B.A. in Chemistry and Mathematics from Westminster College, Fulton, MO, and her Ph.D. at Rice University, Houston, TX. She completed her postdoctoral work in the Molecular Foundry at Lawrence Berkeley National Laboratory. Her research interests are in nanomedicine, immunoimaging, immunotherapies, and utility of Raman spectroscopy for metabolic profiling. Her research has been funded through the NIH, CDMRP, DOE, and NSF. She was awarded the CDMRP Career Development Award, NSF BRIGE award, ORAU's Ralph E. Powe Junior Faculty Enhancement Award, and was named by Forbes Magazine as "Top 30 Under 30: Rising Stars of Science and Innovation". She was also recognized as one of "40 Women Honorees in 40 Years" by her alma mater, Westminster College. Rizia has published ~77 peer-reviewed papers in high impact journals which has received >11,000 citations and an h index of 41.

Candidate Statement: I would be honored to serve as the Director of AIChE MESD. I recently stepped down from a leadership role in AIChE's Nanoscale Science & Engineering Forum (NSEF) Executive Board as the Secretary/Treasurer (2021 - 2023). In my role in NSEF, I assisted the chair and vice-chair with managing the budget and allocate funds for the AIChE reception and NSEF student awards. My significant contribution at NSEF was raising funds through ACS Publications (\$2000 each year I served in this role) that covered all of the student awards, enabled new travel awards for underrepresented minority (URM) students, and covered part of the reception costs. I also managed the young and established investigator awards including advertising the awards, attracting competitive candidates, assigning reviewers, and collecting the reviewer ranking for final awardee decision. I have been actively involved in MESD for the past decade both as an invited speaker as well as chairing and co-chairing sessions. If given the

opportunity to serve MESD, I will leverage my prior leadership experiences to contribute towards MESDs growth specifically by (1) raising funds through ACS Publications and industry sponsors to support student awards specifically focused on women and URM, (2) work closely with MESD chair and vice-chair to potentially start MESD postdoctoral awards for exceptional early career scientists, (3) increase the visibility of MESD sessions and awards to attract competitive candidates, and (4) coordinate efforts with other divisions of AIChE for co-sponsoring both plenary and technical sessions. I look forward to serving the broader AIChE community through this role.

# Steven Caliari, University of Virginia



Bio: Steven Caliari is an Associate Professor of Chemical at Engineering University of Virginia (UVA). Prior to joining UVA in 2016 he was an NIH Postdoctoral Fellow in Department of Bioengineering at the University Pennsylvania. Steven

completed his B.S. in Chemical Engineering at the University of Florida and received both his M.S. and Ph.D. in Chemical Engineering from the University of Illinois at Urbana-Champaign. His lab designs biomaterials to study the dynamic reciprocity between cells and their microenvironment, applying these platforms to address fundamental human health challenges in understanding disease and engineering tissues. Steven has received the NIH (NIGMS) Maximizing Investigators' Research Award (MIRA), NSF CAREER award, and was named a 2021 Young Innovator in Cellular and Molecular Bioengineering.

Candidate Statement: I would be excited and honored to serve as an MESD Director. AIChE has been one of my primary organizational homes for the past 12+ years, starting as a trainee presenting at the national meeting and continuing as a session chair for several years early in my independent career. In 2019 I was elected as the 8B Biomaterials Chair, serving in this capacity for the 2021 meeting. While serving in a leadership position during the COVID-affected years was challenging, the way so many folks in MESD came together to put on the best programs possible was inspiring. If elected as a Director, I would build on these

efforts by prioritizing the continued coordination between Areas to produce a program highlighting emerging topics in Chemical Engineering with a balance of invited speakers across various career stages as well as trainee-contributed talks. I would also like to work with AIChE committees like the Minority Affairs Committee and Young Professionals Committee to ensure that all MESD members feel safe and welcome in our community while also building additional opportunities for trainees to network and take the next steps in their careers.

# <u>Gulden Camci-Unal, University of Massachusetts</u> Lowell



Gulden Camci-Bio: Unal is an Associate Professor the Department of Chemical Engineering at the University of Massachusetts Lowell. She also holds an adjunct appointment in the Department Surgery at the University

of Massachusetts Chan Medical School. She joined the faculty of UMass Lowell after completing her post-doc training at Harvard Medical School and Harvard University. Her current research interests include design and implementation of engineered biomaterials for regeneration of tissues, unconventional materials and medical devices for personalized medicine, and low-cost point of care diagnostics. Her research has been supported by the NIH, NSF, US Army, Congressionally Directed Medical Research Programs (CDMRP), American Heart Association (AHA), and Phase 1 and Phase 2 SBIR and STTR grants. Dr. Camci-Unal's research and teaching achievements include the Robert and Gail Ward Endowed Professorship (2020, 2021, 2022, 2023), University of Massachusetts Lowell Teaching Excellence Award, Iowa State University Teaching Excellence Award, Runner-Up for the Massachusetts Medical Device Development Center (M2D2) \$200K Challenge (2019. 2020), Wakonse Fellowship, Chevron-Phillips Award, Procter&Gamble Fellowship, and finalist for BioFlux Innovation Award. Her research has resulted in 96+ papers. 88+ conference abstracts, and 10+ patent applications. Her work has been published in various high impact journals such as Matter, Trends in Biotechnology, Bioactive Materials. Advanced Materials, Nature Asia Materials, JACS, Biomaterials, and Lab on a Chip. She is an Associate Editor of Bioactive Materials, and an Editorial Board member of Scientific Reports (Nature Publishing Group), PLoS One, Gels, Regenerative Engineering and Translational Medicine, International Journal of Bioprinting, and Micromachines.

Candidate Statement: I am honored to be a candidate for MESD Director. I have been an active member of the AIChE for almost a decade and have served the MESD in various roles that includes organizing sessions, contributing to programming of the organized sessions, chairing sessions, and presenting my research findings on a regular basis. If elected as the MESD Director, I will work diligently with the other division and area leaderships to enhance interactions and collaborations. I will assist in putting together a diverse range of sessions for the annual meeting, enhance member engagement and communication, increase engagement of industry members in the division, enhance representation of MESD online and increase visibility of the members, and support the Executive Committee in their efforts to achieve division goals. I will emphasize diversity, inclusion, and scientific excellency in all MESD efforts. I have been actively involved in promoting and supporting diversity. I have served as a faculty advisor to the Society of Women Engineers (SWE) chapter and the Women in Science and Engineering (WISE) program. I have also served as the Awards Committee Chair of the Women in Chemical Engineering (WIC) at AIChE. Having been involved in groups to promote diversity and continuously hosted students from various backgrounds in my research group, I am committed to continue pursuing efforts to enhance diversity and inclusion as the MESD Director and ensure that our division will continue to be welcoming for all members.

### **Eun Ji Chung, University of Southern California**



Bio: Eun Ji Chung is an Associate Professor in the Department of Biomedical Engineering at the University of Southern California and the Dr. Karl Jacob Jr. and Karl Jacob III Early Career Chair. She has secondary appointments in Chemical Engineering, Medicine, and Surgery, and is an affiliated faculty at the Norris Cancer Center and Stem Cells. Her laboratory is interested in

harnessing molecular design and self-assembly to develop nano- to macroscale biomaterials that can be utilized in medicine. Dr. Chung received her B.A. with honors in Molecular Biology from Scripps College, her Ph.D. from the Department of Biomedical Engineering from Northwestern University, and her postdoctoral training from the Pritzker School of Molecular Engineering at the University of Chicago. Dr. Chung is a recipient of the NIH K99/R00 Pathway to Independence Award (2014) and the NIH Director's New Innovator Award (DP2, 2018), and was named 35 Under 35 from the American Institute of Chemical Engineers (2017) and Fellow of the Biomedical Engineering Society (BMES, 2023), among other honors. Notably, Dr. Chung has also been recognized for her mentorship, outreach, EDI efforts and received the USC faculty mentoring award for undergraduates (2018), the USC WiSE Hanna Reisler Mentorship Award (2021), and Member of the Year Award from the Controlled Release Society (2021). Dr. Chung is an Associate Editor for the journals Bioactive Materials Frontiers in Digital Health and Health and Technologies. She is an author to 70 peer reviewed research articles and 4 book chapters, inventor to 5 patents pending, editor to 1 textbook, author to 2 STEM kids coloring books, and a startup founder.

Candidate Statement: For over a decade, I have been involved in AIChE, MESD, and the Biomaterials Area (8B) as a presenter, panelist, organizing committee member, and session chair or co-chair. MESD and 8B has been a home to me and has supported my career development as a trainee and as a faculty, and I am excited to have this opportunity to contribute back through the Director position. From 2017-2019, I served as session chair or co-chair to Area Plenary: Leaders in Biomaterials: From 2020-2022. I served in the Biomaterials in Industry and the Clinic session; Currently, I am serving as the chair for the Biomaterials Science and Engineering Faculty Candidates session. In addition to these activities, I took part of the planning committee for the Women's Initiative Committee (WIC) and the AIChE-Regenerative Engineering Conference, and was a panelist to the Women's Undergraduate Workshop led by WIC. As Director, I will continue to support the excellent programming of AIChE's technical program and work alongside groups such as WIC, Minority Affairs, LGBTQ+ Allies Initiative, and Young Professionals Committee to support their mission. I am committed to ensuring excellence for all groups and for all members at every stage of their career.

# **Matthew Crane, Colorado School of Mines**



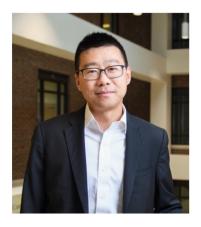
Bio: Matthew Crane is an Assistant Professor Chemical Engineering at the Colorado School of Mines. He holds joint appointments in the Materials Science Program and at the National Renewable Energy Laboratory. Matthew received B.S. Chemical his in Engineering from the Georgia Institute of Technology in his Ph.D. 2011 and

Chemical Engineering from the University Washington in 2017. As a Washington Research Foundation and RCSA Cottrell Postdoctoral Fellow, he trained in the Chemistry Department at the University of Washington under the guidance of Prof. Daniel Gamelin. He then co-founded a startup, BlueDot Photonics, in 2018 focused on commercializing clean energy technologies and was a founding member of the U.S. Manufacturing of Advanced Perovskites (MAPS) Consortium. Matthew has experience organizing large groups of researchers including representing >2,000 postdoctoral scholars to develop antidiscrimination and harassment policies and as a NSF MRSEC senior leader. Matthew also has extensive experience organizing within AIChE Area 8E, electronic and photonic materials, where he has served as Co-Co-Chair (2021), Co-Chair (2022), and Chair (2023) of Area 8E, attended every AIChE annual meeting since 2017, and chaired 8 sessions. He was recently named AIChE 35 under 35 in Materials and Chemistry (2023). Within Area 8E, he established new sessions on metal-halide perovskite and quantum materials, which have emerged as popular new topics due to the unique combination of academic and industrial speakers. Matthew also successfully fundraised to support the area's graduate student awards session and has created new programs to support minoritized Area 8E graduate students.

Candidate Statement: Matthew looks forward to using his experiences organizing in Area 8E and working across academia and start-ups to serve as a Director for MESD. His primary goals as an MESD director would be to grow MESD membership and inter-area community and to promote fundraising by establishing standardized approaches. Some specific objectives include: 1) identifying academic and industrial objectives in MESD areas and organizing targeted cosponsored sessions that address these objectives to attract new members, while reducing programming

redundancy; 2) promoting informal interactions between AIChE attendees of different levels of experience (e.g. graduate students, faculty, and industry) by organizing new social events; 3) creating new positions for currently underrepresented groups, such as graduate students and postdoctoral scholars, to promote engagement with early-career leaders; and, 4) streamlining fundraising activities in MESD Areas by database establishing of former а organizations and templates documents for fundraising and reporting.

# **Letian Dou, Purdue University**



Letian Dou Bio: is currently the Charles Davidson Associate Professor of Chemical Engineering at Purdue University. He obtained his B.S. in Chemistry from Peking University in 2009 and Ph.D Materials Science and Engineering from UCLA in 2014. From 2014 to 2017. he was

postdoctoral fellow at the Department of Chemistry, University of California-Berkeley and Materials Science Division, Lawrence Berkeley National Laboratory. His research interest includes the design and synthesis of organic-inorganic hybrid materials low-dimensional and materials. fundamental understanding of the structure-property relationships, as well as applications in high performance electronic and optoelectronic devices. He is a recipient of Waterloo Institute for Nanotechnology (WIN) Rising Star Award (2022), AIChE Owens Corning Early Career Award (2022), NSF CAREER Award (2021), Advanced Materials Rising Stars award (2021), Office of Naval Research Young Investigator Award (2019), Highly Cited Researcher in Cross-Fields (2019-2022), MIT Technology Review Innovators Under 35-China Award (2018), and MRS Graduate Student Award (2014). He served as the faculty mentor for Purdue Solar Chapter, an undergraduate student organization, to promote materials and energy research among underrepresented students.

Candidate Statement: I am honored to be a candidate for MESD Director. In recent years, I have served as the Area 8E (Electronic and Photonic Materials) Co-Chair in 2018 and 2019 and as the Area 8E Chair in 2020. As Area Chair, I successfully acquired several new sessions (one core session and three co-

sponsored sessions) for the area and secured external support for the Area 8E Graduate Student Award Session. Since then, I have been actively working with new chairs and participating events in 8E and I have chaired 2 topical conference symposiums. My goals as a MESD Director will be to promote a more inclusive environment for researchers with diverse backgrounds and experiences; expand efforts to increase participation of industrial and international members; and initiate collaborative projects with a broader materials research community such as Materials Research Society, SPIE, and American Chemical Society to enhance the visibility of AIChE's MESD. I look forward to working with MESD in the future and appreciate your consideration.

### **Esther Gomez, Pennsylvania State University**



Bio: Esther Gomez is an associate professor in the Chemical Engineering and Engineering Biomedical Departments at the Pennsylvania State University. She received a B.S. in Chemical Engineering from University of Florida in 2002 and a Ph.D. in Engineering Chemical from the University of

California, Berkeley in 2007. She was a postdoctoral fellow in the Chemical and Biological Engineering Department at Princeton University before joining the faculty at Penn State. Research in the Gomez lab focuses on development of biomaterials with cell instructive cues and characterization of structure-function relationships of complex biological materials and assemblies including plant cell walls. Esther's research and teaching have been recognized with an NSF CAREER award and the Penn State Engineering Alumni Society Outstanding Teaching award.

Candidate Statement: I am excited to be considered for a Director position in MESD. I have been a member of AIChE since 2007 and have been actively involved in AIChE meetings as a presenter and session chair. I am committed to increasing the engagement of undergraduates with research and to growing and diversifying the chemical engineering community. I have directed a NSF-funded research experience for undergraduates program focused on the Integration of Biology and Materials since 2014. Through this program, I organize professional development seminars and I have directed undergraduate research

symposiums for 100+ participants. I am also co-chair of the diversity, equity, and inclusion committee within the Chemical Engineering Department at Penn State. If elected, I will aim to enhance the undergraduate and graduate student experience, enrich programming, promote collaboration, and support the chemical engineering community. Furthermore, I will work toward enhancing the visibility and maximizing the impact of MESD within AIChE and the broader scientific community.

# <u>Murat Guvendiren, New Jersey Institute of Technology</u>



Bio: Murat Guvendiren is an Associate Professor and the Director of the Materials Engineering Program in the Otto H. York Department Chemical and Materials Engineering at New Jersey Institute of Technology. He received his Ph.D. under the guidance of Prof. Kenneth R. Shull from the Materials Science and Engineering Department Northwestern at

University. He did postdoctoral studies with Prof. Shu Yang in Materials Science and Engineering Department and Prof. Jason Burdick in Bioengineering Department at the University of Pennsylvania. Dr. Guvendiren is the recipient of NSF CAREER award (2021-2026), NJIT Excellence in Research award (2022), NCE Rising Star Research award (2022), NJIT Excellence in Innovative Teaching award (2021), NJIT Innovation in Engineering Education award (2020), and MTF Biologics Junior Investigator award (2019). He is an elected Senior Member of the National Academy of Inventors (NAI) since 2022.

Candidate Statement: AIChE has been instrumental in my career development starting from graduate school and postdoctoral studies to academic job search – faculty candidate poster session, and recently becoming a tenured faculty. Over the past decade, I have been involved in MESD including organizing and (co-)chairing sessions and volunteering social and academic activities. I am happy to offer my service and honored to be candidate for the MSED Director position. If elected, my goals are:

- To promote diverse, inclusive and equa environment for all
- To attract and engage members from other materials focused societies
- To seek industry and academic sponsors for expanded sessions and social activities

# Yeongseon Jang, University of Florida



Bio: Yeongseon Jang is an Assistant Professor in Department the Chemical Engineering at the University of Florida, assuming her position in 2018. She earned her B.S. in Chemical and Biological Engineering from Seoul National University in 2008 and completed her Ph.D. in Chemical and Biological Engineering under the of Prof. supervision Kookheon Char, also at

Seoul National University, in 2013. Dr. Jang continued her academic journey through postdoctoral working with esteemed faculty appointments. members - Prof. Daeveon Lee and Prof. Daniel Hammer in the Department of Chemical and Biomolecular Engineering at the University of Pennsylvania as well as Prof. Julie Champion in the School of Chemical and Biomolecular Engineering at the Georgia Institute of Technology. Dr. Jang's research centers designing biomimetic. on supramolecular materials created from recombinant fusion proteins and functional polymers. She has made significant contributions to the field, with a portfolio of approximately 30 articles published in peer-reviewed journals, including Advanced Materials, Trends in Biotechnology. Accounts of Chemical Research. Biomacromolecules. and Journal of Materials Chemistry B, where she received recognition as an Emerging Investigator. In 2021, Dr. Jang was honored with an NSF CAREER Award and the Korean Institute of Chemical Engineers (KIChE) President Young Investigator Award, highlighting her dedication to advancing chemical engineering. Bevond research, Dr. Jang actively contributes to the Women Advancement and Mentoring Committee within the Department of Chemical Engineering at the University of Florida. Her involvement underscores commitment to promoting the support and inclusion of women in all aspects of Chemical Engineering.

equal Candidate Statement: I am honored to be a candidate for the MESD Director position and understand the weight of its responsibilities. Since 2019, I have served as a Session Chair in 8A (Polymers). My research interests span both 8A and 8B (Biomaterials), where I have presented and co-authored approximately 15 talks. Within the MESD community, I have been actively involved in various roles, including serving on the selection committee for the annual AIChE Excellence in Polymers Graduate Research Symposium. I have also contributed to the community by participating in the Young Generation Affairs committee through the KIChE-US chapter, co-chairing the Emerging Junior Investigator Open Innovation Forum at AIChE annual meetings, and maintaining close collaboration with industrial sponsors to facilitate social networking events. Beyond my involvement with AIChE, I established the "Women in Chemical Engineering Mentoring Program (W-CHEMP)" by hosting a youth summer camp at the University of Florida. These initiatives exemplify my deep dedication to creating a supportive and inclusive environment for the next generation of Chemical Engineers, both domestically and internationally. If elected, I will work closely with the Executive Committee to enhance the overall experience for all MESD members. This will involve a commitment to transparent and timely communication, unwavering support for our area and session chairs in organizing impactful meetings, and a focus on encouraging the participation of early career members. students. postdocs, and faculty Furthermore, I will aim to expand our efforts to increase the involvement of industrial and international members. ultimately strengthening our global community.

### Amanda Koh, University of Alabama



Bio: Amanda Koh is an Assistant Professor in the Department of Chemical and Biological Engineering at the University of Alabama. She her Ph.D. received chemical engineering from Polytechnic Rensselaer Institute in Troy, NY and her B.S. in chemical engineering from the Massachusetts Institute of Technology in Cambridge, MA. She was an Oak Ridge Associated

Universities (ORAU) Postdoctoral Fellow at the Army Research Laboratory in Aberdeen Proving Ground before moving down south and starting her current faculty position in 2018. The Koh Lab focuses on soft material composites, and particularly the interfaces in those composites, to address exciting challenges in the fields of soft robotics, stretchable electronics, magnetorheological fluids, and polymer adsorbents for improved water quality. Amanda is currently the MESD Mentoring Chair, was the 2022 08F Area Chair, and chaired/co-chaired many sessions in the composites area. Amanda has a passion for expanding the reach of academic research through promoting and supporting graduate and undergraduate scholars and has mentored 32 undergraduate and 4 graduate students, comprising majority women and underrepresented students for which she has been awarded the 2022 Undergraduate Research and Creative Activities (URCA) Faculty Mentor Award as well as a 2020 Girl Scouts of North-Central Alabama Woman of Distinction.

Candidate Statement: AIChE has played a pivotal role in my connection to and learning from the chemical engineering community worldwide. As a chemical engineering Ph.D. from a chemistry graduate group, I have enormously benefited from the programming and connection that my membership in MESD and 08F has provided. This has been strengthened by my role as 08F Area Chair for the 2022 AIChE Annual Conference. As 08F Area Chair I expanded the diversity of the area's chair/co-chair participation and enabled more researchers to share their voice through the use of virtual meeting spaces. This past year I have served as the MESD Mentoring Chair; a new position that I am using to bridge relationships between senior and junior members of MESD in order to provide career guidance, research networking, and build comradery within the division. As Director, I would look forward to learning from each area to understand the strengths that should be built upon and the challenges that we can learn from and address together. I am particularly excited to capitalize on AIChE's commitment to IDEAL (Inclusion, Diversity, Equity, Anti-Racism, Learning) to continue to grow MESD's support and inclusion of all chemical engineering researchers and faculty. I look forward to serving the MESD and AIChE community.

# <u>Ashish Kulkarni, University of Massachusetts</u> Amherst



Bio: Ashish Kulkarni is an Associate Professor in the Department of Chemical Engineering at the University of Massachusetts Amherst. He has courtesv appointments in Departments of Chemistry and Biomedical Engineering. He has been chairing the Diversity. Equity Inclusion (DEI) Committee in

the Department of Chemical Engineering since 2021. Before this, he was an Instructor of Medicine at Harvard Medical School and an Associate Bioengineer at Brigham and Women's Hospital. He received his B. Tech. from the Institute of Chemical Technology, University of Mumbai, his Ph.D. from the University of Cincinnati, Ohio and his postdoctoral training from Harvard Medical School and MIT. At UMass Amherst, his lab is developing biomaterials-based strategies for regulating immune cell behavior in the context of diseases such as cancer, autoimmune disorders etc. His work has been published in respected journals (including Science Advances, Advanced Materials, Nature Biomedical Engineering, Nature Communications, Biomaterials, PNAS, ACS Nano, Cancer Research etc.) and featured in several global media outlets (BBC News, Boston Globe, Boston Herald etc.). He was selected as one of the top 12 rising researchers, 'Talented 12', by the American Chemical Society's Chemical & Engineering News, a Innovator' in Cellular and Molecular Bioengineering by the Biomedical Engineering Society, a 'NextGen Star' in Cancer Research by American Association for Cancer Research and an 'Emerging Investigator' by Biomaterials Science. He is a recipient of the NSF CAREER Award, NIGMS R35 Outstanding Investigator (MIRA) Award, American Cancer Society's Research Scholar Award, Melanoma Research Alliance Young Investigator Award and Cancer Research Institute Technology Impact Award. He has several issued and pending patents and founded two startup companies focused on therapeutic and diagnostic approaches for cancer.

Candidate Statement: I am excited to be a candidate for the MESD Director position and look forward to contributing to the Division's mission. I have been involved with the MESD division for several years, specifically in the Biomaterials Area (8B), as a presenter, abstract reviewer, session chair or co-chair,

and participating in programming meetings. As the Director of the MESD Division, I will work with the Chair and other MESD Executive Committee to develop outstanding programming that represents the different constituents (domestic and international) at all levels of the MESD division, help in fundraising to support plenary and invited speakers, and student travel awards for technical sessions, promote a diverse and inclusive environment within the division by providing a platform for researchers from underrepresented groups to network and share their work, develop resources and mentorship programs that will support students and early career researchers and foster the growth of the field, including mentoring sessions, workshops, peer-to-peer support groups networking opportunities. foster interdisciplinary collaborations between materials scientists and engineers, polymer and biomedical community, work on actively promoting the recent exciting work from the division members through social media.

# Jeffrey Lopez, Northwestern University



Bio: Jeffrey Lopez is an Assistant Professor of Chemical & Biological Engineering Northwestern University. His research is focused on using fundamental chemical engineering principles to study energy storage devices and design solutions to enable

accelerated adoption of sustainable energy technologies.

Prior to joining the Northwestern faculty, Jeffrey attended the University of Nebraska - Lincoln where he received his B.S. in Chemical Engineering. He then moved to Stanford University to pursue graduate studies in Chemical Engineering and was awarded a NSF Graduate Research Fellowship and a NDSEG Fellowship to fund his work, which focused on molecular design of new self-healing polymers and elastomers with novel mechanical properties for improving the stability of lithium ion batteries. After completing his Ph.D., Jeffrey moved to the Massachusetts Institute of Technology Intelligence Community Postdoctoral Fellow where he studied fundamental mechanisms of electrochemical instability and ion transport in polymer electrolyte materials. Jeffrey has received multiple awards for his

research including the ACS Henkel Award for Outstanding Graduate Research in Polymer Science and Engineering in 2020, the 2019 Metrohm Young Chemist Award, the ACS Eastman Chemical Student Award in Applied Polymer Science in 2018, and the AIChE Excellence in Graduate Polymer Research Award 1st Prize in 2016 (From MESD!).

Candidate Statement: I have been involved with MESD throughout my career beginning in Area 8A (Polymers) as a graduate student presenter and continuing as a session chair for various MESD programming at the AIChE annual meeting. I am now seeking to increase my involvement with and service to MESD as a Director. My goals, if elected as a MESD Director, will be to improve the programming at technical meetings by increasing communication and coordination with other AIChE divisions and expanding session cosponsorship where areas of overlapping interest are identified. I will work to continue the excellent efforts of MESD to recognize outstanding chemical engineers across all of our focus areas and at all levels. I will also strive to continue encouraging an inclusive MESD community for students and researchers from underrepresented populations within AIChE by working with and supporting efforts of the Minority Affairs Committee, LGBTQ+ Allies Initiative, and Women in Chemical Engineering.

# Caroline R. Szczepanski, Michigan State University



Bio: Caroline R. Szczepanski an Assistant Professor at Michigan State University focusing on bio-inspired biomimetic engineering design and education. She earned her B.S. in Chemical Engineering from Lafavette College in 2009 and her M.S./Ph.D. in Chemical Engineering

from the University of Colorado in 2014. After completing her PhD, she spent two years as a post-doctoral researcher at the Université Côte d'Azur (Nice, France) and two years as a Research Assistant Professor at Northwestern University. Caroline's research team takes inspiration from natural materials with unique and intriguing properties (self-cleaning behavior, mechanical performance, etc.) and leverages polymer science and polymer engineering to

recapitulate and expand upon intricate and complex natural designs. The research in Caroline's group addresses challenges in diverse application fields including renewable adhesive technologies, plastics for automotive vehicles, biomaterials, and sustainable composites. Her research is supported by the NIH (National Institute for Dental & Craniofacial Research), the NSF (Condensed Matter Physics) and private entities (Ford Motor Company). Recently, Caroline has been recognized as an emerging researcher and leader by AlChE (included in the 2022 Futures issue and symposia organized by the AlChE Journal) and the American Association of Dental & Craniofacial Research (AADOCR, selected as a member of the MIND the Future 2023-2024 cohort).

Candidate Statement: I am excited to be a candidate for MESD Director. In recent years I have been involved with both the Polymers (08A) and Composites (08F) areas, presenting my research, chairing/cochairing sessions, and attending programming meetings. MESD has been my technical 'home' since joining AIChE in 2007, and I appreciate the efforts of previous directors and chairs that have made the division successful. In addition to my efforts within MESD, I am also engaged with other groups of AIChE. Specifically, I am on the executive committee of the Women in Chemical Engineering community (WIC) (current vice-chair).

As a candidate for MESD director, I would utilize my unique position as a leader within the IDEAL community of AIChE to strengthen and grow the division. Specifically, I would work to grow our division membership, focusing on recruiting new members from other IDEAL communities and industry. Furthermore, I would also look to expand the scope of our programming by establishing new co-sponsored sessions, particularly with IDEAL communities. Through my leadership with WIC I have organized co-sponsored sessions with technical divisions which have been very successful. I think similar co-sponsorships would benefit and enrich our MESD programming.

# **Bret Ulery, University of Missouri**



Bio: **Bret Ulery** is an Associate Professor in the Department of Chemical and Biomedical Engineering at the University of Missouri in his tenth year on faculty. After earning a B.S.E. in Chemical Engineering and a B.S. in Biochemistry from the University of Iowa in 2006, he conducted graduate research at

Iowa State University and received his Ph.D. in Chemical Engineering with a Graduate Minor in Immunobiology in 2010. From 2010 to 2012, he was a Postdoctoral Fellow in the Institute for Regenerative Engineering at UConn Health before working as a Postdoctoral Scholar in the Institute for Molecular Engineering at the University of Chicago from 2012 to 2014. As the Principal Investigator of the Biomodulatory Materials Engineering Laboratory (BioMEL), he leads a diverse team of researchers focusing on the synthesis of novel peptidyl and polymeric biomaterials to address a wide range of unmet clinical needs in both veterinary and human medicine. He and his lab have been recognized through funding from the Department of Defense Reconstructive Transplant Research Program (2017), National Institute of Biomedical Imaging and Bioengineering Trailblazer Award Program (2019), and the American Cancer Society Research Scholar Grant Program (2021). At the University of Missouri, his service efforts have focused on improving student experiences and outcomes through his work as Chemical Engineering Curriculum Coordinator (2016 -Present) and Director of Chemical Engineering Graduate Studies (2017 - 2019) as well as serving on the campus Undergraduate Course and Curriculum Committee (2018 - Present).

Candidate Statement: Since graduate school, I have been involved at many levels in the Biomaterials Area (8B) of MESD by first giving presentations before chairing sessions and guiding programming this past decade. Beyond these yearly efforts, I had the distinct pleasure of serving as the 8B Area Chair in 2019. I am excited about the opportunity to grow engagement in MESD by serving as a Director. In specific, I think there are wonderful opportunities to grow MESD by focusing on convergence and inclusion. So much research

today is at the intersection of fields and nowhere in AIChE is that more apparent in the many distinct but complementary areas that make up MESD (i.e., Polymers - 8A, Biomaterials - 8B, Inorganic Materials -8D, Electronic Materials - 8E, and Composites - 8F). By increasing discussion among area leadership teams, we can expand programming that facilitates high-quality communication across our constituent groups. Additionally, it is important that we continue to build upon the great work that has been conducted over the past several years in MESD to improve access to all groups, but especially those underrepresented ones, so that they can engage with our division, present their work, and become members of our community. I look forward to leveraging my expertise in these areas, especially my recent effort to start a interdisciplinary materials science engineering graduate program at my home institution, to help support MESD going forward.

# **Matthew Webber, University of Notre Dame**



Bio: Matthew Webber is Keating-Crawford Collegiate Professor of Engineering and an Associate Professor in Department the Chemical & Biomolecular Engineering at the of University Notre Dame. His research group is interested in

applying supramolecular principles, leveraging defined and rationally designed non-covalent interactions, to improve biomaterials and drug delivery. Prof. Webber received a BS in Chemical Engineering from the University of Notre Dame and a PhD in Biomedical Engineering from Northwestern University. Subsequently, he was an NIH NRSA postdoctoral fellow in Chemical Engineering at MIT. He is the recipient of the American Diabetes Association Pathway Accelerator Award and the JDRF Career Development award, and was named by AIChE as one of the "35 under 35" young leaders shaping the field in 2017. He also received the NSF CAREER award in 2020 and was inducted to the College of Fellows of the American Institute of Medical and Biological Engineering (AIMBE) in 2023. He is also the 2023 recipient of the AIChE Owens-Corning early career award from MESD. Presently, he serves as a memberat-large on the executive committee of PMSE (ACS) and as vice-chair of the Drug Delivery specific interest group in the Society for Biomaterials (SFB). His

academic career includes 103 publications and 15 pending/awarded patents.

Candidate Statement: For the past 8 years, I have been actively involved in the Biomaterials Area (8B) of MESD, contributing each year as a presenter and session chair and being actively involved in the 8B meetings. Since programming beginning independent career in 2016, I have been very fortunate to establish and grow my research program within the MESD community. The friends and collaborators I have gained by attending and organizing sessions at AIChE meetings have been an amazing resource nucleating and strengthening my own creative research pursuits. Returning to the AIChE meeting in Boston in-person for the first time following the virtual experiences of the COVID era, I came to fully realize how important my integration within this community was to my scientific and professional identity. My desire to serve as a Director arises from a passion to give back to this community and help to shape and direct its efforts in the coming years to ensure we continue to be a welcoming home for materialsfocused researchers within the broader chemical engineering community. In particular, I want to ensure a sustained emphasis on cultivating the careers of students, postdocs, and young faculty, repaying this community for all the support I have received in my early career.

### Helen Zha, Rensselaer Polytechnic Institute



Bio: **Helen Zha** is an Assistant Professor of Chemical & Biological Engineering at Rensselaer Polytechnic Institute. Her expertise research encompasses 16 years of experience in the synthesis and study of biomimetic materials. de novo designed peptide and protein-based materials, and self-assembled soft matter. Current projects in her lab include investigating

interfacial self-assembly by network-forming proteins to form biomedical coatings, synthesizing silk-mimetic macromolecules by chemical and microbial approaches, and developing sustainable bioplastics to reduce reliance on fossil-based materials in the textile industry. Dr. Zha received her B.Sc. (2007) from MIT and her Ph.D. (2013) from Northwestern University,

where she was awarded the NSF Graduate Research Fellowship. After pursuing postdoctoral research at Eindhoven University of Technology and UC Berkeley, Dr. Zha started as a tenure-track assistant professor at Rensselaer Polytechnic Institute in 2018. Dr. Zha has received the NSF CAREER Award, published 26 peerreviewed journal articles, and been awarded 2 patents to date. Dr. Zha currently sits on the Scientific Advisory Council of Materials Innovation Initiative, a non-profit organization aiming to accelerate the development of next-generation sustainable materials. She is also the Associate Director of the New York State Fashion Innovation Center, At Rensselaer, Dr. Zha is a faculty mentor for the Women at Rensselaer Mentoring program, and she is an invited member of the Teaching and Learning Collaboratory Board. Dr. Zha is currently the 2023 Chair of the 8B Biomaterials program area of MESD. She has also co-chaired symposiums at MRS and TechConnect World on biomaterials-related topics.

Candidate Statement: I have been actively involved in the 8B program area of MESD since 2018, first as a session chair, then as area vice chair (2022) and chair (2023). When it comes to my go-to academic community, MESD and AIChE have become a welcoming home base. As the current 8B area chair, my primary goal has been to improve the gender, race, socioeconomic, and experiential diversity of the 8B community. I also aim to facilitate equitable participation and an inclusive environment for all who are interested in participating in our programming. Following the 2022 AIChE conference, we surveyed 8B participants to understand our current area demographics. We will shortly be establishing an 8B Diversity, Equity, and Inclusion committee that will create strategies and activities for promoting IDEAL in the 8B community. We will be hosting the inaugural 8B IDEAL Discussion Panel at the 2023 AIChE conference, where we will furthermore discuss challenges and potential solutions for equitable participation in our programming. As an MESD Director, I would like to continue my efforts in facilitating high quality programming that is inclusive and equitable for under-represented, minoritized researchers. I commit to working alongside MESD and AIChE leadership, as well as with the LGBTQ+ Allies community. Women in Chemical Engineering, and the Minority Affairs Committee. I alsoπ welcome opportunities to connect with the AIChE Annual Student Conference, as well as with local K-12 institutions at conference locations.



# To cast your vote:

All MESD professional members should have received an email with voting information (check your clutter or spam!). Please double check your MESD membership status, or you will not be able to log in to vote. You can cast your vote online here: https://www.aiche.org/election/476

If you have any problems accessing the ballot, please contact AIChE Customer Service at the following email address:

customerservice@aiche.org

Election will close: November 5, 2023

### MESD supports advancement along an IDEAL path



https://www.aiche.org/equity-diversityinclusion/statement

### 2022-2023 MESD Leadership

### **Chair & Newsletter Editor**

April Kloxin, University of Delaware (302) 831-3009 akloxin@udel.edu

### 1st Vice Chair & 2023 Program Chair

Rafael Verduzco, Rice University (713) 348-6492 rafaelv@rice.edu

# 2<sup>nd</sup> Vice Chair& 2024 Program Chair

Adrianne Rosales, University of Texas-Austin (512) 471-6300 arosales@che.utexas.edu

#### **Past Chair**

Julie Champion, Georgia Tech (404) 894-2874 julie.champion@chbe.gatech.edu

### Secretary/Treasurer

Ryan Toomey, University of South Florida (859) 257-5507 toomey@usf.edu

# **Directors (term ends 2023)**

Cole DeForest, University of Washington (303) 506-9725 ProfCole@uw.edu

Rachel Letteri, University of Virginia (434) 243-3628 rl2qm@virginia.edu

### **Directors (term ends 2024)**

Jorge Almodovar, Univ. of Arkansas (UMBC 2024) (479) 575-7780 jlalmodo@uark.edu

Kelly Burke, University of Connecticut (860) 486-3133 kelly.burke@uconn.edu

# **Mentoring Chair**

Amanda Koh, University of Alabama askoh@eng.ua.edu

### **Social Media Chair**

Evan Wujcik, University of Maine evan.wujcik@maine.edu

### **AIChE Liaisons**

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# **CTOC Liaison**

Bryan Boudouris, Purdue University boudouris@purdue.edu

# Opportunities to get involved:

- 1. Area Programming. All areas are seeking assistance from MESD members in program development, session chairing, and young professional (YP) and industrial member engagement. Attend your Area's business meeting or contact your Area's current chair as noted above.
- **2. Other ideas?** Reach out to any member of the Executive Committee.

### Thank you to our MESD Sponsors!





Braskem Award for Excellence in Materials Engineering and Science

**Owens Corning Early Career Award** 

### Thank you to our Area Sponsors!

TA Instruments, *Biomaterials Science* (Royal Society of Chemistry), *Journal of Biomedical Materials Research Part A* (Wiley), *Journal of Vacuum Science A* (AIP Publishing), and Chevron

