2023 2nd Quarter



AIChE Fellows Newsletter

Fellows Breakfast—The next breakfast will be at the 2023 Fall (Annual) Meeting — Orlando, FL.

Details to Follow

Update: Tuesday, November 7th—(6:45 AM—7:45 AM)

Coffee available at 6:30 AM

From the Fellows Council

This year our goal is to publish the following newsletters. "1st Quarter", "2nd Quarter", "3rd Quarter" and "4th Quarter". Your comments are solicited as to content you would like to see, or if you would like to provide content. Our Vision is to involve you in furthering the mission of AIChE by promoting an active Fellowship!

<u>Click the "In this Issue" links on the right</u> to jump to features on the following pages.

2023 Fellows Council Executive Committee:

Lori McDowell, <u>Chair</u>; Timothy Anderson, <u>Chair-Elect</u>; Anthony Fregosi, <u>Secretary</u>; Annette Johnston, <u>Immediate Past Chair</u>; John O'Connell, <u>Past Secretary</u>; Gina Gatto, <u>AIChE Staff Liaison</u>



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Special points of interest

Come to Breakfast! Fellows Events

Orlando, FL: November 7, 2023

Get Active with Students! Seeking Fellow Volunteers:

Student Conferences

AIChE Student Conferences in 2023

Student Chapters

Get involved with a student chapter at a university near you

Student Design Problem

A link to Serve as a "mentor" for the 2023 Student Design Problem will be provided when available.

Useful Links

Fellows Leadership

FC organization and leadership

Fellows Directory

Where to find an AIChE Fellow

Fellows By-Laws

Current Governance Document

Fellows Volunteer Service.

Register your interests & availability to volunteer AIChE service

AICHE Academy

Education & training for chemical engineers & their companies

AIChE Foundation

Doing a World of Good

AIChE Annual Report

Complete information about AIChE activities, organization, and people

Contact Us

Email the Fellows Council

From the Chair of the Fellows Council



"The biggest area for improvement was communication, especially with new Fellows, and long-term Fellows that have become disengaged. We are actively looking for opportunities to do this and you should see results soon, including better contact with new Fellows and a survey for all Fellows

In the meantime, please send me any ideas or suggestion to lori.mcdowell@schooleymitchell.com

Fellows Council Activities

The AIChE Fellows Council oversees the organized activities of the Fellows. The Fellows Council meets at a minimum of four times per year to discuss Fellow activities and policies.

Two meetings are face-to-face at the Spring (National) and Fall (Annual) AIChE meetings; virtual meetings are scheduled on the 4th Tuesday of the other months as needed.

Fellows interested in being considered for Fellows Council service should *contact us*.

Hello fellow Fellows!

I hope you have all had an amazing Spring – and are getting ready to head into Summer.

There has been a lot going on since our last Newsletter and if you read the entire Newsletter, you should gain a lot of useful information. Also, there are a number of places in the newsletter where your feedback is requested. PLEASE GIVE FEEDBACK – we can't meet your needs if we don't have the information and we really do want to hear from all Fellows.

We had some breakout sessions at the Spring Fellows Breakfast, and also at the Virtual Fellows Gathering the following week, and we received some amazing feedback from those who participated. We asked the Fellows three questions about Fellow Engagement – 1. Where are we now, 2. Where do we want to go and 3. How do we get there. The information we gathered will be used to develop future opportunities for Fellows.

So where are we with regards to Fellow Engagement. All believed that many Fellows are very engaged, but that some are either not really engaged or want to be more engaged but don't know how. The main area of engagement was student outreach (conferences, Chem-E-Car, design projects, etc.). Fellows were also engaged in their local areas on things like local sections, advisors, lab tours, mentors, board service. Engagement was more on an individual basis then in groups. Almost all agreed that as Fellows, service to the profession is expected to continue, and they felt the Fellows Council could better communicate areas where Fellows can be more engaged, especially for new Fellows. COVID also showed us that virtual and remote engagement opportunities are needed as well as face to face.

All agreed that Fellows should be more engaged so the big question is what do we want to be engaged in? This question gave us a lot of great suggestions. Local Sections were mentioned by many and that getting involved with your local section, or if there is not one, then with the Virtual Local Section was a great way for Fellows to be more engaged.

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2023 AIChE Annual Meeting, Orlando, FL.





The 2023 AIChE Annual Meeting: — Hyatt Regency Orlando, Orlando, FL

The AIChE Annual Meeting is the premier educational forum for chemical engineers interested in innovation and professional growth. Academic and industry experts will cover wide range of topics relevant to cutting-edge research, new technologies, and emerging growth areas in chemical engineering.





We have two New Fellows videos to share celebrating the highlights of their contributions to the profession. Note: An ad is likely to play before the video.

<u>September and December 2021</u> and <u>2022</u>

Moment of Silence

Give our departed colleagues a moment of silence.



"How To" Nominate a AIChE member for Fellow

Fellows Membership. We developed a "Video" about how to nominate potentially worthy members for Fellow, which can be found on the Fellows page of the AIChE website. We are recruiting Fellows to assist with nominations, and to work with entities in AIChE that have not historically nominated many Fellows in the past.





Annual Fund

Donations can be made in any amount, at any time throughout the year, to support the mission of AIChE. Traditionally comprised of unrestricted and designated support, the AIChE Annual Fund is the cornerstone of AIChE's Foundation and supports a range of programmatic needs, including scholarships and awards; support for students, young professionals, women and underrepresented minority chemical engineers; education and training initiatives; and K-12 outreach. The funds are available thanks to the generosity of our donors to the AIChE Annual Fund and are reviewed by the grants committee of the AIChE Foundation Board of Trustees.

Your donations to the AIChE Annual Fund have supported campaign priorities:

Attracting the Best & the Brightest - programs that excite and inspire K-12 students and their families about the possibilities of chemical engineering

Education, Training & Career Development - lifelong learning initiatives to enhance and extend professional development

Research & Innovation – groundbreaking ideas and solutions are being developed to address society's global challenges

Safety & Ethical Practice – teaching and advancing worldwide standards helps to minimize incidents, accidents and makes our world more liveable for everyone.

Changing Perceptions – educating and enhancing public understanding of the positive impact of chemical engineers and their innovations

Successful programs supported by the AIChE Annual Fund:
AIChE's <u>Disabilities OutReach & Inclusion Community (DORIC)</u> is instrumental in advocating for its members with disabilities. With support from the Annual Fund, DORIC has established itself as a community that raises awareness of the specific needs and resources for chemical engineers with disabilities and provides a space where they can meet and network with colleagues and allies. Read the proposal here.

The <u>Summer School for Engineering Faculty</u> is a faculty development workshop designed to advance the education, profession, and field of chemical engineering. As a joint project between AIChE's Education Division and ASEE's Chemical Engineering Division, this program strengthens faculty professional development and student success through research collaborations, networking opportunities, and more. Thanks to the Annual Fund, we are able to invest in the next generation of chemical engineers. Read the proposal here.

What Do You Think the Annual Fund Should Support?

Another way the Foundation supports sustainable and impactful programs is through Program Funding Requests from AIChE Entities. Twice a year, the Foundation invites Operating Councils and Board Committees to submit proposals for new and innovative projects (over \$10,000) that benefit AIChE members and the chemical engineering profession. If you have any questions, please contact giving@aiche.org.

Fall Funding Cycle Deadlines:

- October 1 Cycle opens
- December 1 Cycle closes
- Early February Announcement of grants funded

If you're a qualified member of an Operating Council or Board Committee, you can submit a proposal below or go to http://www.aiche.org/foundation-funding-proposal



2023 Board of Directors

Billy B. Bardin, President — Billy B. Bardin, PE, is the Global Digitalization Director for Dow. He joined Union Carbide/Dow in 2000 and has held global leadership roles in research, development, and manufacturing.

Alan E. Nelson, President-Elect—Alan Nelson is the Senior Vice President (SVP) for Redwood Materials where he is responsible for leading the sustainable development of cathode active materials (CAM) for lithium-ion batteries.

Christine Grant, Past President—Christine Grant is a professor of Chemical and Biomolecular Engineering and the Inaugural Associate Dean of Faculty Advancement in the College of Engineering at North Carolina State University.

MaryKathryn Lee, Secretary—MaryKathyrn (Kathy) Lee has been a researcher at ExxonMobil Corporate Strategic Research for 30 years. She has been an active AIChE member for more than 10 years and was recently elected Fellow.

Pete Lodal, Treasurer—Peter Lodal is a retired Technical Fellow of Eastman Chemical Company, having spent nearly 42 years with Eastman in various positions including process engineering, process safety and loss prevention.

Norma A. Alcantar, Director—Dr. Norma A. Alcantar is Professor and Associate Dean for Research in the Dept. of Chemical, Biological, and Materials Engineering at the Univ. of South Florida. She is a global pioneer in developing innovative, natural technologies for environmental, medical, and industrial applications, including improving access to clean drinking water, oil spill cleanup, and cancer tumor cell treatments.

James R. Beilstein, Director—Jim Beilstein is Vice President of Advanced Manufacturing at Owens Corning. In this role, he has responsibility for the technology of manufacturing operations, process innovation, capital engineering, and equipment purchasing.

David Dixon, Director—David Dixon joined AIChE as a student and recently became an AIChE Fellow. He served for four years in the military, primarily overseas, and worked for Dow Corning in process development before earning his PhD in chemical engineering from UT Austin. He then began his academic career at South Dakota School of Mines and Technology.

Donna (Bryant) Dybeck, Director—Donna (Bryant) Dybeck is a Technology Transfer Process Engineer for Pfizer, focusing on biologic products. Prior to joining Pfizer she worked at Johnson Matthey-Pharmaceuticals and Syngenta in various Engineering and Production roles.

Lola Eniola-Adefeso, Director—Omolola (Lola) Eniola-Adefeso is the Associate Dean for Graduate and Professional Education in Engineering and the University Diversity and Social Transformation Professor of Chemical Engineering at the Univ. of Michigan. She received her BS in chemical engineering from the Univ. of Maryland, Baltimore County, and a PhD from the Univ. of Pennsylvania.

Julianne Holloway, Director—Julianne L. Holloway is currently an Assistant Professor in Chemical Engineering at Arizona State University, where she began in 2016. Julianne received her Ph.D. in Chemical Engineering at Drexel University in 2012.

Hugh James, Director — Hugh James is the Chief Executive Officer at Project Commercialization Group (PCG), Inc. He has worked in industries including engineering and construction, gas, fertilizers, chemicals, power, pipelines, mining, and venture capital — with experiences ranging from small to Fortune 100 organizations. His work has involved living in North America, Latin America, Europe, Africa, and Australia.

Laura Matz, Director—Laura Matz is the Chief Science and Technology Officer for Merck, KGaA, Darmstadt, Germany, driving innovation and digitalization across the company's life sciences, healthcare, and electronics sectors. Serving as an executive vice-president, she is responsible for the corporate innovation teams including the digital office and new digital business models.

Anne O'Neal, Director—Anne O'Neal is Manager of Process Safety Culture and Competency at Chevron, and an AIChE Fellow. Her 40-year career includes senior positions in process safety, as well as health, environment and safety.

William Raiford, Director—Bill is Senior Director Technology - Titanium Technologies for The Chemours Company in Wilmington, DE. He is accountable for the R&D, product development and manufacturing technology organizations of the global titanium dioxide pigment business.

Elsa Reichmanis, Director—Elsa Reichmanis is Professor and Carl Robert Anderson Chair in Chemical Engineering in the Department of Chemical and Biomolecular Engineering of Lehigh University.

Daryl Roberts, Director—Daryl Roberts is Chief Operations and Engineering Officer at DuPont. He has 32 years of experience in chemical engineering in a number of leadership positions with companies including Arkema, Inc. and Eastman Kodak. He serves several industry organizations including AIChE, the American Chemistry Council, and the National Action Committee for Minorities in Engineering.



Notes from Fellows Council Meetings 2023 February, March, and April

Note these are "excerpts" from the Fellows Council meeting minutes.

A FC zoom meeting was held on February 27, 2023. The following items were discussed:

Spring Meeting Update

Fellows Breakfast

Work to create "table" cards of topics to discuss and report on results (15 minutes)

Leadership Topical – Check out LM's session on Leadership

Welcome to attend YP Social and IDEAL Session

• Fellows Newsletter

Thank You to those who provided content for 2023 1st Q. Deadline for content submission for 2023 2nd Q. – May 15, 2023

• Student Programs

Speakers Corner Fellow Engagement Science History Institute Fellows Survey

- Schedule for March Fellows Council March 27, virtual meeting -11:30-1 pm Central
- New Business

What content presented at the breakfast is available following the event? What additional methods of advertising the Speaker's Corner are used?

A In-Person meeting (Spring Meeting) was held on March 14, 2023. The following items were discussed:

- Welcome
- Leadership Report and Q&A
- AIChE Executive Director & CEO: Darlene Schuster
- 2023 AIChE President: Billy Bardin
- New Fellows Recognition
- Fellows Announcements
- Table Breakout Session and Report

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Save and <u>download</u> the new AIChE Fellow ribbon and add it to your email signature to show your pride in belonging to AIChE!





Notes from Fellows Council Meetings 2023 February, March, and April (Continued)

A FC zoom meeting was held on April 24, 2023. The following items were discussed:

Spring Meeting Update

Fellows Activities

See Notes from Fellows Breakfast and Virtual Meeting Breakout

Fellows Newsletter

Next content submission deadline is May 15th Did you get your 2023 Q1 Newsletter?

• Plans for 2023

Student Programs

How many Fellows participated at Student Regionals? – Data to be compiled.

How many students used the design problem? – Problem is still On-going" – Data by end of May.

Greg Yeo and Joe Machado answered student questions regarding the problem

Fellow Engagement

Work is underway setting up a way to measure demographics of Fellow diversity

Science History Institute (SHI) Task Force Report

List of ideas – need to organize/prioritize. TF has been meeting monthly.

The TF needs to consider how they might approach the "housing" of "books"

Re-initiate a "small" conversation with the Foundation regarding the Fellows Endowment to move it forward.

Request Foundation representative to attend the next FC Exec Meeting to discuss.

Fellows Survey

More information by next month – Or June by the latest – send out in Oct.

- The next "In-Person" Fellows Council Meeting will be at the Annual Meeting on November 5th 10th in Orlando, FL. Details to follow.
- New Business

Information about Updated FC Website.

Comments solicited from the FC regarding further improvements needed.



Fellow Engagement Activities

What to Do with Our Books?

Content provided by Randy Freeman, AIChE Fellow, CCPS Fellow,

Randy asks this question.

At the Houston March 2023 AIChE Fellows Breakfast, I posed the problem of what to do with our accumulated technical reference books and materials when we retire.

In my consulting experience about one-half of the material I need to solve a problem can be found online using Google search or other web searching tools. The other half resides in paper copies often held in storage by large libraries such as the Rice University Library in Houston, Texas.

I am getting ready to retire from active practice. I have a collection of over a thousand technical books that I have accumulated over my 45 year career in Chemical Engineering. Many of these volumes are relatively rare. The major libraries are selling off their technical collections. For pennies on the dollar, I have purchased rare copies of technical books that serve as the basis of much of current engineering practice.

Does anyone have an idea of what to do with these materials?

Editors Notes: John O'Connell—The FC Task Force regarding the Science History Institute (SHI) "lead" has forwarded Randy's question to Gayle Gibson, who is leader of the AIChE-SHI task force, so that she can include this for consideration.

The SHI Staff/FC SHI Task Force is set to meet in late June.

<u>Fellow's Chair Lori McDowell has suggested a potential solution—Read it in the continuation of her newsletter on Page 11.</u>

Do you need ideas as to how you may become more Engaged as a Fellow?

Content provided by Harold Conner PhD, PE, CPEM, ASEM Fellow, AIChE Fellow,

Harold, Paul Tayor and Mark Swientoniewski have interacted with the University of Tennessee and with various departments in the Tickle College of Engineering and local Industrial Entities.

I participate on three Boards at the University of Tennessee; The Alumni Board of Directors, The Tickle College of Engineering Board of Advisors, and the Nuclear Engineering Board of Advisors. Mark and Paul are very active in the local chapter of the AIChE and have served in all chapter capacities over the years and been active in the University of Tennessee Department of Chemical and Biomolecular Engineering and are still actively employed with local Industrial entities.

Mark, Paul and I have been actively involved in providing awards, lectures, giving keynote addresses, attending student chapter meetings, local chapter programming, grading posters competitions, assisting in Chem E Car preparations and grading, attending high school recruiting events, working with coops and interns, and also in ultimate hiring decisions for students with our Industrial entities affiliations.

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Fellow Engagement Activities Continued

Do you need ideas as to how you may become more Engaged as a Fellow?

Here is a summary listing of current and past activities that the AIChE Knoxville – Oak Ridge Local Section (AIChE KOR) has engaged with the University of Tennessee, Knoxville (UTK).

- Free dinner to UTK Chemical and Biomolecular Engineering (CBE) students at the AIChE KOR monthly meetings.
- Host a UTK CBE student poster presentation of their current research at the AIChE KOR monthly meetings.
- Hold joint meetings of the AIChE UTK Student Chapter and AIChE KOR with a theme of sharing career experiences.
- AIChE KOR presents an annual award and cash prize to an outstanding UTK CBE student.
- AIChE KOR arranges plant tours for UTK CBE students.
- Provide cash donations towards AIChE UTK Student Chapter member travel expenses to attend AIChE national Chem-E Car Competitions.
- Provide judges for UTK CBE research poster presentation competitions.
- Provide judges for the Southern Appalachian Science and Engineering Fair (SASEF).
- Provide judges for the UTK Science Olympiad.
- Provide judges for the AIChE UTK Student Chapter hosting a regional Chem-E Car Competition.

Additional Links:

Office Dedicated in Honor of Conners, Belief in Co-op and Internship Experiences - Tickle College of Engineering (utk.edu)

Alumni - Benmark and Conner Blaze Trails that Meet on UT's Alumni Board of Directors (utk.edu)



Science History Institute

Do We Know Our History...?

If you are interested in helping to prioritize what more AIChE and Science History Institute (SHI) can do together, please join a small group of Fellows to share your ideas. Contact Gayle Gibson (gibeck@comcast.net),

Zenaida Gephardt (gephardtzo@rowan.edu), or John O'Connell (jpoc2x@aol.com).

The Fellows of AIChE have storied careers and have been or are part of groundbreaking research, innovations, commercial scale-up, educational development and solutions to many global challenges. These stories could be just the right inspiration for a future engineer, but only if the stories are captured and told.

"Those who cannot remember the past are condemned to repeat it."

GeorgeSantayana,philosopher

George E. Davis was an English consulting engineer who created the first "Handbook of Chemical Engineering" which took a different perspective on typical books of the late 19th century. Davis organized the handbook by the basic operations common in chemical industries of the day, like distillation, transporting liquids, evaporation and crystallization, and illustrated plant machinery that was available along with industrial examples.

Arthur Little, a renowned consultant, later used the term "unit operations" in a 1915 report to the president of MIT. Little worked with William Walker, MIT chemistry instructor, who was reforming the chemical engineering curriculum and helped by fostering collaboration with industry.

Imagine if we today could hear more of these stories about how our profession was crafted into what we now know as chemical engineering.

In 1982, AIChE worked with ACS and the University of Pennsylvania to establish the SHI to capture the history of chemical engineering and chemistry. SHI has some of the founding documents for AIChE, select chemical company archives, a wealth of artifacts, oral histories, documents and a museum. The mission of SHI today stretches beyond capturing history - it calls to "reveal how developments in these fields are embedded in our daily lives and to catalyze the reimaging of our scientific and technological future."

AIChE is actively involved with SHI via three members on the SHI Board of Directors and two members on the Affiliate Council. The CEO and Executive Director of AIChE has directed these members to connect with AIChE's Fellows to explore the many potential collaborations. SHI is currently working on several areas of emphasis that includes water, women in chemistry, science & activism, alternate drug delivery methods, science of color, and many more.

You may go to the following link to view additional information about SHI.



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It was also suggested that Fellows help with mid-career transitions, end of career opportunities and career evolution, and also that we have a way for retired Fellows to maintain contact with their peers. Board appointments was another great suggestion and that information on how to do this was an activity Fellows could help with. Fellows should also look for a way to share their knowledge and expertise, whether it be with students, young professionals, their communities or even AIChE Staff and Leadership.

So what can the Fellows Council do to help Fellows get more engaged? The biggest area for improvement was communication, especially with new Fellows, and long-term Fellows that have become disengaged. We are actively looking for opportunities to do this and you should see results soon, including better contact with new Fellows and a survey for all Fellows. We will also be working with AIChE Staff and Leadership to see what Fellows can do for them, since we have a wealth of knowledge and talent. Some ideas are involvement with more interactions with faculty, ILI, IDEAL and FOSSI. Additional info on the Fellows Endowment, what it will be used for and how you can contribute will also be coming soon. We may also look at bring a YP to the Fellows Breakfast program, to get more direct involvement with young professionals.

The last area I want to address was an issue brought up by Randy Freeman, and I will call this "Save the Books". Randy was concerned that many Fellows have a lot of technical and historical books, and as they age, there is not really a good place to

send them. Universities and libraries don't need them, families don't want them, but there is a lot of value in these books.

I would like to propose a solution. I am working with a Non-Profit called T.E.N.E.F. This organization is based on building strong communities and empowering youth with education. They give scholarships to students in Texas who are the first of their family to attend college. They also send computers and lab equipment to a rural area in Nigeria to help provide scientific and technical education. They are interested in a library, and if we are willing to donate the books, they will get them to Nigeria. I think this would be a great first pilot program, and then we can look at other non-profits that are also interested. We will soon be sending a form to all Fellows asking you to list the Title, Author and Publish Date/Edition for all books you would like to donate, and once we curate that, we will give you information on which books we would like and where to send them. Hopefully, this will be a win for everyone!

If you have any comments, questions or suggestions, please send them to me at lori.mcdowell@schooleymitchell.com

Until next time, stay engaged and have a great summer!

Lori

