4th Quarter 2022



# AIChE Fellows Newsletter

# Fellows Breakfast—The next breakfast will be at the 2023 Spring (National) Meeting — Houston, TX.

## From the Fellows Council

This year our goal is to publish at least 3 of 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.



Best regards: **Fellows Council Executive Committee**: Annette Johnston, <u>Chair</u>; Lori McDowell, <u>Chair-Elect</u>; Anthony Fregosi, <u>Secretary</u>; Robert Ofoli, <u>Immediate Past Chair</u>; John O'Connell, <u>Past Secretary</u>; Gina Gatto, <u>AIChE Staff Liaison</u>



#### In this Issue

From the FC Chair ..... 2

2023 Spring Meeting .... 2

2022 New Fellows ...... 3

From the 2023 FC Chair. 4

2023 Board of Directors 5

2023 Outreach Efforts .. 10

#### Special points of interest

Come to Breakfast! Fellows Events Houston , TX: March 13, 2023

Get Active with Students! Seeking Fellow Volunteers:

Student Conferences To attend AIChE Student Regional Conferences in 2023

<u>Student Chapters</u> Get involved with a student chapter at a university near you

<u>Student Design Problem</u> Serve as a "mentor" for the 2023 Student Design Problem

#### Useful Links

<u>Fellows Leadership</u> FC organization and leadership

<u>Fellows Directory</u> Where to find an AIChE Fellow

<u>Fellows By-Laws</u> Current Governance Document

<u>Fellows Volunteer Service</u>. Register your interests & availability to volunteer AIChE service

<u>AIChE Academy</u> Education & training for chemical engineers & their companies

<u>AIChE Foundation</u> Doing a World of Good

<u>AIChE Annual Report</u> Complete information about AIChE activities, organization, and people

Contact Us Email the Fellows Council



"Greg Yeo and the Alliance to End Plastic Waste went above and beyond to provide a Design Problem"

"I also truly appreciate the work of Fernando Aguirre to nurture connections with student chapters"

#### 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 <u>contact us</u>.

## From the Chair of the Fellows Council

THANK YOU AND WELCOME TO LORI

I want to take this opportunity to thank all of you for your efforts in supporting student chapters, Regional Conferences, Fellow nominations, and the Design Problem. The Fellows continue to be a growing resource for supporting the younger members of AIChE. That trend will continue under Lori McDowell's leadership. I look forward to seeing how many younger members the Fellows will support in 2023.

We know that the many more entities within AIChE are aware that we will help with nomination packages. There are many cases where someone thinks "that person should be a Fellow", and "someone else will", because they do not know how to do it. We have taken steps to visit the Operating Councils, some committees, and some divisions, to encourage them to contact us for support so that everyone that should be nominated is nominated.

Greg Yeo and the Alliance to End Plastic Waste went above and

beyond to provide a Design Problem that addresses a real environmental issue today. This was a one time effort by the Fellows. In the future, others will develop the Design Problem. I think students around the world will appreciate that they can work on a plastics problem for their design project that comes with some data provided. In addition, Fellows will support an electronic forum for questions about the problem, so that students at universities with all levels of network and resources have access to industry experts to support them with their designs.

Finally, I truly appreciate the work of Fernando Aguirre to nurture connections with student chapters, so that more Fellows can be mentors and supporters of student chapters worldwide. Many members of the Fellows Council, and others have volunteered many hours of their time to participate in poster judging, student chapter meetings, and other student chapter events. (Cont'd on Page 3)

## 2023 AIChE Spring Meeting, Houston, TX



<u>The 2023 AIChE Spring Meeting: —March 12 - 16 -Hilton of the Americas,</u> <u>George R. Brown Convention Center. Houston, TX</u>

The AIChE Spring Meeting and Global Congress on Process Safety is the year's key technical conference for practicing chemical and process safety engineers, covering the industry's critical needs more broadly and deeply than any other conference.





### Moment of Silence

Give our departed colleagues a moment of silence.

The 2021 New Fellows were celebrated with a video highlighting their contributions to the profession. Note: An ad is likely to play before the video. <u>Congratulations New Fellows</u>

## From the Chair of the Fellows Council (Cont'd)

## Fernando continues to manage the <u>aichefellowswithstudents@aiche.org</u> email to match mentors with student chapter

needs.

Work with student chapters has been a "pull" activity: we look for student chapters to contact us. In future, I believe Lori will work with the Fellows Council to set up a "push" system, where student chapters look at what mentoring is available, and can ask specifically for support offered. I look forward to seeing this come together in 2023, under Lori McDowell's leadership.

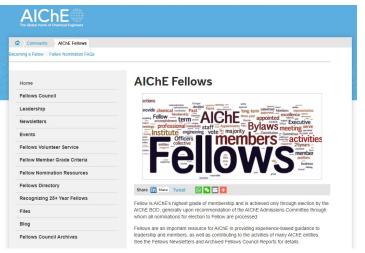
I leave you in good hands. Please continue to help students and young members grow in their practice of Chemical Engineering. Contact Lori, as she asks you to in her message, with any ideas you have.

Have a happy and prosperous New Year!

When was the last time you visited the AIChE Fellows site on the AIChE Web site?

Please click on the following link to access the below site:

#### AIChE Fellow Site



## "How To" Nominate a AIChE member for Fellow

Fellows Membership. We developed a <u>"Video"</u> 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.



## From the 2023 Chair of the Fellows Council

#### Hello Fellows

#### Welcome to 2023.

May this year be the best yet for all of you! I am your new Fellows Council Chair and wanted to say Happy New Year to everyone! As a Fellow of AIChE, you have already achieved a lot and congratulations on being recognized as a Fellow. But just because we have been named Fellow, it does not mean we are done – Fellows have so much to offer to AIChE and our communities, and we want the Fellows Council to give you many ways you can participate and help.

First, I would like to Thank Annette Johnson, 2022 Chair, and Robert Ofoli, 2022 Past Chair, for their service to the Fellows Council. They have done an amazing job in developing opportunities for Fellows to serve AIChE, especially students. In 2023, we will continue this important work. Fellows will continue to support the student design project, ChemE Car and other student competitions, and Student Chapters. If you are interested in participating in any of these areas, please contact the appropriate person, as outlined in other sections of this newsletter, or let me know. Fellows also did amazing work in supporting the AIChE Foundation with our donations and we want to continue this as well. Thank you for being so generous!

But we also want to give Fellows other ways to get involved. Do you want to network with other Fellows? Give papers or presentations on your area of expertise? Support young professionals or mid-career professionals? Become a mentor? Help support AIChE's IDEAL path? Or donate to a specific AIChE program? We want to provide all these opportunities to serve and more. Sometime in 2023, you will receive a Fellow Survey asking for your ideas on what it means to be a Fellow and in what areas Fellows should be involved. Please "I would like to Thank Annette Johnson, 2022 Chair, and Robert Ofoli, 2022 Past Chair, for their service to the Fellows Council"



take the time to fill out and return the survey because we will use this information to develop new opportunities for Fellows. In the meantime, please send me any ideas or suggestion to Imcdowell@mathesongas.com.

Once again, Happy New Year to all! Please enjoy this Newsletter and be proud to be a Fellow. And please continue with the great service work that was instrumental in becoming a Fellow! We hope to see you at the Fellows Breakfast in Houston in March!

Lori McDowell Fellows Council Chair, 2023



## 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) or 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.

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.

Linda J. Broadbelt, Director—Linda Broadbelt is Sarah Rebecca Roland Professor in the Department of Chemical and Biological Engineering (ChBE) and Associate Dean for Research of Engineering at Northwestern University. She was Chair of the Department of ChBE from 2009-2017.

**Donna Bryant, Director**—Youth hasn't stunted Bryant's career trajectory. As the youngest superintendent Syngenta's St. Gabriel Plant has ever had, she leads a 26-person unit that treats the wastewater streams for the entire plant and removes the remaining waste from the site.

**Paulette Clancy, Director**—Paulette Clancy is a professor and the inaugural Head of the Dept. of Chemical and Biomolecular Engineering at Johns Hopkins Univ. She also serves as the Samuel and Diane Bodman Professor Emerita of Chemical Engineering at Cornell Univ. and as Chair of the faculty oversight team for Advanced Research Computing at Johns Hopkins' High-Performance Computing facility.

**Brian Davison, Director**—Brian Davison is Chief Scientist for Biotechnology at Oak Ridge National Laboratory (ORNL). He is also the Chief Science Officer of the U.S. Dept. of Energy's (DOE's) new Center for Bioenergy Innovation, and the previous BioEnergy Science Center.

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.

Ann Lee, Director—Ann Lee is currently the Chief Technical Officer at Prime Medicine, Inc. She was previously SVP and Head of Cell Therapy Development and Operations (CTDO) SVP and Head of Cell Therapy Development and Operations (CTDO) at Bristol Myers Squibb from 2019 to July 2021.

**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.

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.



5

## Notes from Fellows Council Meetings 2022 August, September, October and November Fellows Gathering December 2022

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

A FC zoom meeting was held on August 22, 2022. The following items were discussed:

- Fellows Council Program Held virtually week after the Annual Meeting
- Current measure of Reach will be number of Student Chapters Contacted Base line set at 32 of 171 (18.7%)
- Report on Design and Circular Economy problem
  - Student Design Problem Statement is on Box Emily Miksiewicz will establish an On-Line Forum as a "conduit" to promote Fellow/Student engagement
    - "Invitations" will be sent to several Fellows to participate in the On-Line Forum outreach Comment on the schedule of the school year in Saudi Arabia.
    - Comment on the schedule of the school year in the southern hemisphere.
- Fellow Nominations report
  - Eight Nominations and Two hold overs for September cycle. We are still looking for a way to determine the diversity of the Fellowship. Comment we should all be looking for diverse qualified Fellow candidates.
- New Fellows Council members and Officers Please contact Robert Ofoli if you have suggestions for membership on the Fellow Council and nomination for an Officer role.
- New/Other Business

How are we notifying individuals when they have been elected as a Fellow? Explained how the process works. Q1 and Q2 letters are in the works. Once they have been sent-out we will be back up-to-date.

Discussion regarding FC Chair job duties and FC Onboarding Documents. Include information about problem in the newsletter and ask Fellows if they are interested in being potential mentors for the problem.

Put FC roster on the Box - Placed in the "onboarding" folder.

A FC zoom meeting was held on September 26, 2022. The following items were discussed:

- Business Meeting/Fellows Breakfast plan All Fellows Program— December 5<sup>th</sup>. – (12:30 am – 2:00 pm EST) – email invite to be sent.
- Review Annual Report.

The 2022 goals accomplished and 2023 goals, as reported in the Annual Report, presented at the breakfast meeting – Nov.  $14^{\text{th}}$ .

The Annual Report document presented at the Virtual Meeting – Dec. 5<sup>th</sup>

Next Year's Fellow Sponsored Problem

Find a new leader volunteer – Greg has declined the leadership role, but is willing to assist the new volunteer leader. (Continued on Pg. 7)



## Notes from Fellows Council Meetings 2022 August, September, October and November Fellows Gathering December 2022 (Cont'd)

Call for new task force to work on next years sponsored problem – The Alliance to End Plastic Waste is likely interested in continuing to support of Student/Fellow process. Still need to identify a new leader of the task force.

• New Fellows Council members and Officers

Present Slate – Slate Finalized. Sent to Gina to create and distribute to Fellows Council for vote. Discussed Voting Procedure – The Fellows Council votes. Vote will be a ratification of the published slate. Ratification is by email with Fellows Council members in the next two weeks. After FC votes, CEOC also ratifies. We should have our new FC ratified by next FC meeting. Ratification of vote totals required monitored according to the bylaws.

Onboarding

Discussed what onboarding docs are already available.

The updated Onboarding documents will be ready immediately following the results of the voting. Fellows Exec Committee will review and approve the onboarding documents by October 7.

• Next Year's Schedule

After this meeting, there will be the usual October FC meeting (prepare for Annual). Then there will be the Fellows Breakfast only in November. The virtual FC meeting where all Fellows are invited will be on Dec 5. This meeting will introduce new FC members, new FC officers, and goals. We will maintain the same meeting schedule for next year.

#### A FC zoom meeting was held on October 24, 2022. The following items were discussed:

- Business Meeting/Fellows Breakfast plan All Fellows Program— Virtual December 5<sup>th</sup>. – (12:30 am – 2:00 pm EST) – email invite to be sent.
- Fellows Engagement at 2022 Annual

Events fellows should consider attending at annual. CEOC CTOC SIOC (MAC, WIC, DORIC, LGBTQ+) CDFO (Division/Forum) SC Advisors Meeting SCC Meeting Note: Fellows may indicate their desire to "engage" with Student Chapters by sending an email to: <u>aichefellowswithstudents@gmail.com</u>. This email is routinely monitored by Fernando Aguirre and he will get back to you to help you make a "connection".

• Review Annual Report.

The 2022 goals accomplished and 2023 goals, as reported in the Annual Report, to be presented at the breakfast meeting (if time permits), otherwise will be reported at Virtual meeting The Annual Report document to be presented at the Virtual Meeting. Preview peak at demographics? (Continued on Pg. 9)

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!





AICHE FELLOW

## "Call for Fellow Volunteers"

One of several goals of the Fellows Council this year is to increase the "Reach" of the Fellowship. In other words to help Fellows continue to provide service to AIChE and the profession.

This "Call for Fellow Volunteers" is the start of a list of activities that are available for you to participate as a Fellow. Many of these activities are Student/Student Chapter related.

#### "One of our aspirations is to connect Fellows with every AIChE Student Chapter"

One way to get started is to **Please drop us a note at** <u>aichefellowswithstudents@gmail.com</u>.

- 1. Offer to join the Fellows-Student Chapter Task Force—Contact Fernando Aguirre or Greg Yeo using the above email.
- 2. Offer your support to help at any one of the (9) Regional SC Events.
- 3. Offer to participate, if needed, at the Annual Student Conference held at the AIChE Annual Meeting.
- 4. Support the Student Design Problem and/or a Societal (e.g. Circular Economy, Climate Change, Renewable Energy, Sustainability) Problem related to the Student Design Problem for next year.
- 5. We can also use your help to volunteer to lead the Societal Problem development activity with the support of an "Industrial Partner".
- 6. Be a Student/Fellow Mentor.
- 7. Be a mentor to a Student Chapter near you or Virtually if you have knowledge a Student Chapter is seeking, but is not near you.
- 8. Yet another potential activity is to evaluate submissions for the FOSSI applications.
- There are many other activities all of which welcome help-Chem-E-Car Competition<sup>®</sup>, ChemE Cube<sup>™</sup>, ChemE Jeopardy.
- 10. Offer to join the Fellows Council!

Look for additional items in future newsletters—or if you have an idea of your own—Please submit it to the Fellows Council.









## Notes from Fellows Council Meetings 2022 August, September, October and November Fellows Gathering December 2022 (Cont'd)

- Next Year's Fellow Sponsored Problem
  - Any suggested foundation support projects, or are we back to ACE4G?
    Do we have the mentors in place for plastics problems?
    Are they trained? Teams Forum Site being set up (available after Annual) for collaboration with Plastic Waste problem Emily setting up Not likely to see any movement until January.
- New Fellows Council members and Officers Voting is in progress. – Voting closes Nov. 1<sup>st</sup>.
- Next Year's Schedule

We will maintain the same meeting schedule for next year. Note: The current 2022 meeting invitations will be cancelled and a "new" set of invitations will be sent for the 2023 meetings to the current and newly added 2023 FC members.

A FC in-person meeting was held at the Annual meeting **November 14, 2022**. No "official" notes were recorded.

A Virtual Annual Meeting Fellows Gathering was held via Zoom on December 5, 2022.

Following a "general" session those attending selected one of several "breakout" rooms that covered various topics of interest. Notes from the general session and the "Brainstorming" breakout session.

General Session Attendance: Andreas Matzakos, Annette Johnston, Anthony Fregosi, Bill Parrish, Bob Gale, Bob Wasileski, David Dixon, Dendy Sloan, Ed Trujillo, Emily Miksiewicz, Fengqi You, Fernando Aguirre, Gina Gatto, Godwin Igwe, Greg (No Last Name), Greg Yeo, Ilja Siepmann, Kalyani (No Last Name), Kathy Kas, Larry Erickson, Laura (No Last Name), Lnda Bergeron, Lori McDowell, Mark Swientoniewski, Natalie Krauser, Nicholas Urbanski, Paul Fanning, Raghubir Gupta, Robert Ofoli, Tom Rehm, V G Pangarkar, Vic Edwards

Fellows are to contact Annette if they are interested in being a mentor for the design problem. Annette will send the names to Emily. Whoever is leading the design problem will direct questions to the mentors when they come up.

Emily will know more about the Student Regional Conference dates this month. As soon as we know them, Fernando will work to match volunteer Fellows with Chapters needing help with Regional Conferences.

Present at the "brainstorm" breakout: Bob Gale, Vic Edwards, Nicholas Urbanski, Diane Spencer, Larry Erickson, Pad Familial, Godwin Igure, Jean-Charles de Hemptinne.

Jean-Charles was joining from Paris, France. He thinks there should be more physically present local sections internationally. He is looking to the Fellows Council to make that connection. I said that we needed people in the area to have a relationship (or a relationship with each other) in order for that to happen. We have chosen to work with the Student Chapters, so that as they graduate, perhaps they will have the energy to start a section as YPs.

Some fellows remembered an old system where Fellows posted presentations that they could make, so that Student Chapters and Local Sections could see possible speakers to invite, Now that so much can be done virtually, we should try that again. Do we still have that program to revive somehow? (Continued on Page 10)



## Notes from Fellows Gathering December 2022 (Cont'd)

Another way to spark enough energy to start a local section internationally is to have an AIChE social at an AIChE sponsored meeting. That is a social in the area, perhaps beyond just those attending the meeting. ACHEMA was one example.

They asked that more information about the Virtual section be in the newsletters.

## Fellow Support of Regional Student Conferences

Emily Miksiewicz will know more about the Student Regional Conference dates this month. As soon as we know them, Fernando Aguirre will work to match volunteer Fellows with Chapters needing help with Regional Conferences.

## Fellow Support of Student Chapters

You may have read about the Fellows efforts in supporting Student Chapters in the last newsletter (2022 Q3). In that note we explained our goals and asked anyone interested to drop us a note at <u>aichefellowswithstudents@gmail.com</u>.

Over the past year, we have learned of Fellows currently interacting with 33 Student Chapters out of 172, mostly in the United States. If you are one of those Fellows supporting a Student Chapter, we would like to hear your experience so that we can share it with other Fellows, as this can provide ideas and expand the support we provide to Student Chapters in the US and beyond. Please use the email address provided above to share your experience.

## Fellows Will Mentor AIChE Design Problem in 2023

The Fellows have worked with the Alliance to End Plastic Waste (AEPW) to develop the AIChE 2022-2023 Design Problem. Many thanks to Greg Yeo, who made all the connections, and worked on collecting the data and refining the problem. This problem addresses one of the most important problems in Chemical Engineering and the World: How to remove plastic waste from the environment. This year, the Fellows have offered to provide a little extra support for teams that may have lesser resources.

The design problem is a Pyoil design, using waste plastic as a feedstock. Also, details about an actual recycling center in Bali (an example of a feedstock provider) are also included in the problem. Students that submit a Pyoil design can submit a recycling center optimization. There are prizes for both the design and the recycle center optimization. Money for prizes was provided by AEPW, and AEPW will provide mentors for the forum site, where students can ask questions about the problem.

In addition to mentors from AEPW, several Fellows have also volunteered to answer questions. Student ask the questions in a TEAMS site, where all competitors can track conversations about the questions. The volunteers answering the questions will clarify data, direct students to find the data, and suggest what Knovel books or articles may be useful to reference in order to complete the design and the center optimization.

The addition of this forum is an IDEAL activity. It provides a resource for universities that may have lesser networks and resources than others. This year, all students wanting to compete for the Design Problem prize will have access to industry and academic experts in Plastic Waste, and perhaps will learn the great resources available to them as AIChE Student Members. The technical resources they find to solve the problem will continue to be useful to them as Young Professionals.

The problem was emailed to the Student Chapter Advisors. In order to see the problem, please contact the Student Chapter advisor at your local university. There are strict rules related to communication about the problem, because it is a competition. If you decide to help your local university, please remind them to look at the forum, and to use it. The Student Chapter Advisor will know how to access the forum. The competition ends in June 2023.

Fellows are to contact Annette Johnston if they are interested in being a mentor for the design problem. Annette will send the names to Emily Miksiewicz. Whoever is leading the design problem will direct questions to the mentors when they come up.

