

# MAC

# eNews

Volume 3, Issue III October, 2016

**Fall Meeting 2016, San Francisco,  
CA**

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Dr. Barabino,  
William Grimes Award Winner

## **William Grimes Award**

**Congratulations to Dr. Gilda Barabino for  
Winning the William Grimes Award!**

**The William Grimes Award is named for the First African American Fellow of AICHe. The award honors a chemical engineer who has demonstrated outstanding achievements in their field, and who has voluntarily given time and effort to help increase the interest and performance of members of minority groups in science, math and engineering.**

Gilda Barabino is a Professor and Associate Chair for Graduate Studies in the Department of Biomedical Engineering at Georgia Institute of Technology and Emory University. She recently served as the inaugural Vice Provost for Academic Diversity and is credited for establishing a legacy to strengthen diversity and inclusion at Georgia Tech.

Her research interests include investigation of the influence of fluid mechanical forces on cell and tissue behavior, growth and development in the context of sickle cell disease and cartilage and bone tissue engineering. She currently directs the NSF Minority Faculty Development Workshop and serves as Principal Investigator on the NSF ADVANCE Leadership Award, "Cross-Disciplinary Initiative for Minority Women Faculty," an initiative designed to enhance the socialization of tenure-track minority women into academic careers in engineering.

## Congratulations to the Recipients of the 2016 MAC EMINENT CHEMICAL ENGINEERS AWARD

**The MAC Eminent Chemical Engineers Award is presented to outstanding chemical engineers who are achievers in their profession.**



Ms. Boler-Davis,  
Eminent Engineer

### **Ms. Alicia Boler-Davis**

*Executive Vice President, Global Manufacturing, General Motors*

Ms. Boler-Davis was named Executive Vice President of General Motors Global Manufacturing in June, 2016. A member of the Executive Leadership Team at GM, Ms. Boler-Davis reports to GM Chairman and CEO Mary Barra and leads 181,000 employees at 171 facilities in 31 countries.

In 2014 she was named Technologist of the Year by Women of Color Magazine. In 2013, Fortune magazine named her as one of the 10 most powerful women in the automotive industry. In 2010, Automotive News included Boler-Davis in its list of the 100 Leading Women in the North American Automotive Industry.



Dr. Collins,  
Eminent Engineer

### **Professor Lance R. Collins**

*Joseph Silbert Dean of Engineering, Cornell University*

Dr. Collins joined Cornell in 2002. He served as Director of Graduate Studies for Aerospace Engineering from 2003-2005, and the S. C. Thomas Sze Director of the Sibley School of Mechanical & Aerospace Engineering from 2005-2010.

He is a fellow of the American Physical Society (2007), the American Association for the Advancement of Science (2015) and the American Institute of Chemical Engineers in (2015). He served as Vice Chair, Chair and Past Chair of the US National Committee on Theoretical & Applied Mechanics, and is Chair Elect of the American Physical Society Division of Fluid Dynamics.



Dr. Ameer,  
Eminent Engineer

### **Dr. Guillermo A. Ameer**

*Professor of Biomedical Engineering at the McCormick School of Engineering and the Department of Surgery at the Feinberg School of Medicine, Northwestern University*

Dr. Ameer's laboratory pioneered the development and applications of citric acid-based biomaterials. He has co-authored over 200 peer-reviewed journal publications and conference abstracts, several book chapters, and over 35 patents issued and pending in 9 countries, several of which have been licensed to develop innovative medical products. Dr. Ameer has received numerous awards, including election to Technology Review Magazine's top 100 Young Innovators in the world, the NSF CAREER award, and the American Heart Association's Established Investigator Award.

## Updates From Our Members



**Dr. Cato Laurencin** is the leader of the newly created Institute for Regenerative Engineering (IRE) at UConn Health. The goal of the organization is to help millions of patients regain mobility and strength by regenerating tissue, limbs, and organs. It brings together experts from the fields of orthopedics and musculoskeletal health, reconstructive sciences, biomedical engineering, craniofacial sciences, and stem cell technologies to form a multidisciplinary body researching the formation of complex tissues.

To learn more about the Institute for Regenerative Engineering, visit <http://health.uconn.edu/regenerative-engineering/>



**Dr. Tagbo Niepa** was in Grenoble, France to initiate a research collaboration between the University of Pennsylvania and the Grenoble Institute of Technology.

He had this update to share about his experience.

As a Postdoc, I led a group of 9 Graduate and Undergraduate students working on the 3 ACTs of REACT projects (Research and Education in Active Coatings Technologies for Human Habitat - <https://react.seas.upenn.edu>). I was involved in developing smart and active coating technologies for the prevention of infections transmission, and more specifically in studying the partitioning and diffusion of bioactive molecules through polymeric membrane. In that role, I have mentored an Undergraduate student from Penn, and a Graduate student from Alabama State University (an historically black university) to design an antifouling and antimicrobial coating material using layer-by-layer techniques. The summer research experience was presented to the French-American Workshop (in MINATEC, Grenoble) and to an US congressional delegation comprising Allen Cutler (Staffer from the US Senate), Tony Gibson (NSF Congressional Liaison, NSF senior adviser for legislative affaires), and Sonia Ortega (NSF, Head of the NSF Europe and Eurasia office). I was awarded the best oral presentation. In addition, I have attended and was a discussion leader at the 2016 international Gordon Research Conference on Biointerface (Les Diablerets, Switzerland). I got appointed as Chair of the Co-chair of the next international Gordon Research Seminar on Biointerface, which will be held in 2018.

## Constitution Changes

### **AIChE Calls for Special Election to Revise Institute's Constitution; Vote to be conducted Oct. 11 through Dec. 12**

AIChE's Board of Directors is asking the Institute's membership to approve proposed changes to AIChE's Constitution in a special election to take place from October 11 to December 12, 2016. The proposed amendments to the Constitution are designed to modernize the Institute's governance practices and to make AIChE more flexible and better able to adapt to the changing needs and interests of its members and stakeholders.

The Constitution changes were undertaken by the Institute's Constitution and Bylaws Committee, which, in addition to considering ways to improve AIChE's service to today's chemical engineers, benchmarked AIChE's current practices against the best practices of similar societies.

Amendments fall under four general categories: establishment of term limits and clarification of roles for AIChE's elected leaders; movement of operational provisions to the Institute's bylaws; modernization of practices; and adherence to legal requirements.

Among the practices proposed for modernization are a broadening of AIChE's ability to create new entities, as well as a change in the percentage of voting members needed to amend the AIChE Constitution that reflects contemporary levels of voter participation in nonprofit organization elections. Legal requirements addressed

by the Constitution changes include compliance with recent revisions to the laws governing not-for-profit organizations in New York State, the state in which the Institute is incorporated.

In a letter posted on the AIChE website, Institute President Gregory Stephanopoulos delved into the factors that drove the Constitution changes, emphasizing the Institute's determination to keep pace with transformative changes in the profession.

Noting the challenges inherent in governing a 21st century professional organization using a Constitution drafted in the mid-20th century, Stephanopoulos said, "AIChE exists to serve the needs of all chemical engineers. Yet, our Constitution limits the ways in which AIChE can form and institutionally support appropriate groups to serve our members and new constituencies."

He concluded, "These amendments will, I believe, provide the scope and flexibility to govern and manage AIChE for the foreseeable future. That's why I am asking AIChE members to cast a vote in favor of amending the AIChE Constitution."

Paper ballots will be mailed to all AIChE members in Fall 2016, and voting — by postal mail or electronic proxy — will commence on October 11. The deadline for votes is December 12. Members will also be able to cast their vote onsite at the Annual Meeting in San Francisco, CA, November 13–18.

To read the proposed Constitution revisions, and for more information, visit [www.aiche.org/amendments](http://www.aiche.org/amendments).

## South Texas Section Donation

### Thank You from **MAC** to the South Texas Section for Your Generous Donation

This year, the South Texas Section of AICHe continued its support of MAC's mission "to promote all minority chemical engineers within AICHe" through an extremely generous contribution of \$5000 to the MAC Scholarship Program.

This donation enables MAC to offer more scholarships to young engineers. MAC greatly appreciates the South Texas Section's sustained commitment to the education of minority engineers. Their investment in the enhancement of diversity in engineering is sure to pay dividends by bringing a greater number of capable young minds to the engineering profession.

## Growing MAC's Fundraising

### MAC's Fundraising Grows

*-Kathy Lee, Chair*

MAC is currently engaged in three major fundraising efforts to benefit the Scholarship fund. First, I would like to emphasize again the importance and uniqueness of the MAC Scholarship fund. MAC is the only entity within AICHE that grants scholarships based on merit and need. Financial obstacles remain one of the most cited problems when minority students are asked about successful completion of chemical engineering degrees.

Over the last two years, MAC has been making an effort to identify incoming freshmen interested in STEM fields and chemical engineering majors needing financial help to continue seeking engineering degrees. We have been very successful identifying many more students we would like to support and who deserve support. Now we must pursue the funds to provide that support.

Here are the ways you can help.

**MAC Futures Fund** - the MAC Futures Fund is designed to support the Scholarship Fund for this year. No donation is too small. These funds are directed into the Scholarship fund and are totally spent in the current year.

**MAC Endowment Fund** - the endowment fund was started with the help and support of the AICHE Foundation to provide a steady source of income for the scholarships of the future. It has been incredibly successful thanks to very generous and thoughtful donors. Please consider supporting this effort.

**Local Section Support** - for the second year, the South Texas Section has partnered with MAC to provide Scholarships to local chemical engineering students (attending a local university based in the south Texas region). This is a new partnership that we hope can be expanded to other local sections. If you belong to a local section interested in partnership with MAC, please contact anyone on the executive committee.

## Faculty Openings

### Openings for Faculty Positions in Chemical Engineering at Montana State University

Tenure-Track Position: <https://jobs.montana.edu/postings/6075>

Tenure-track faculty position with primary responsibilities teaching both undergraduate and graduate courses consistent with the candidate's background, developing a nationally-recognized, externally-funded research program, and participating in professional/service activities.

Non-Tenure Track Position: <https://jobs.montana.edu/postings/6025>

This non-tenure track position will teach on-campus courses; advise, evaluate, and assist students; and conduct course development.  
engineers.



### MAC Leadership 2016

Chair:	Kathy Lee	<a href="mailto:kathy.m.lee@exxonmobil.com">kathy.m.lee@exxonmobil.com</a>
Vice Chair:	Belinda Akpa	<a href="mailto:belinda.akpa@gmail.com">belinda.akpa@gmail.com</a>
Treasurer:	Joe Howard	<a href="mailto:noirmal@aol.com">noirmal@aol.com</a>
Secretary:	DeMarcus Hunter	<a href="mailto:demarcushunter@yahoo.com">demarcushunter@yahoo.com</a>
Officer:	Emmanuel Dada	<a href="mailto:emmanuel.Dada@ymail.com">emmanuel.Dada@ymail.com</a>
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Contact the Editor:

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**MAC Minutes**  
Grand Ballroom K, Hilton-Americas  
Monday, April 11, 2016

Chair: Kathy Lee

Chair-Elect: Belinda Akpa

Treasurer: Joe Howard

Secretary: DeMarcus Hunter

Communications/Newsletter: Michael Chee-Awai

Call to order 4:05 pm

**\* Introduction, overview and changes to agenda announced**

**\* SIOC report (K. Lee, Z. Gephardt, K. Ziemer)**

Spring Meeting event – SafeZone Workshop, Tuesday 3:30 followed by reception at 5 pm. This workshop was developed by ASEE for LGBTQ community. There will be another Fall workshop that will have an academic focus.

Signing of Memorandum of Understanding with NSBE – NSBE executive director Karl Reid, AICHe President Greg Stephanopoulos, Former AICHe President Otis Shelton and others from AICHe present came to sign MOU (Monday, April 11, 2016). This is a tremendous opportunity to have access to statistics and undergraduate community and to come together to strategize about support for under-represented minorities in chemical engineering.

AICHe was invited to attend the 50K coalition workshop. Four societies comprise the 50K Coalition Leadership Circle: NSBE, the American Indian Science and Engineering Society, the Society of Hispanic Professional Engineers, and the Society of Women Engineers. –

See more at: <http://news.asce.org/asce-hosts-50k-coalition-workshop-to-strategize-for-greater-inclusion/#sthash.vamP6527.dpuf>

**\* Scholarship/mentorship report by E. Dada**

In the period 1994-2015 MAC has given 418 scholarships, some led to PhDs

In 2015, 15 college scholars, 12 freshmen scholarships

In 2014, 8 college scholarships, 22 freshman scholarships

The Scholarship committee has added a mentorship volunteer from U.Penn working with E. Dada

Need volunteers to evaluate applications for next cycle.

Please contact [Emmanual.Dada@ymail.com](mailto:Emmanual.Dada@ymail.com)

**\* Discussion: How to Fund Next Year – Kathy Lee**

Although the MAC endowment fundraising has begun, Mac endowment won't bear fruit in next years so we need a way to fund the next years. [\$7K has been raised so far]

Q. What about funding stream via dues check-off; also typically funding request have been made to foundation in past.

projects. It will not fund on-going projects. Therefore, our strategy is

1. MAC Futures Fund.
2. Dues check-off. Unfortunately, \$\$ have decreased in 2015.
3. Individual donors. We will appeal to individual donors this year.
4. Use company matching funds.
5. Learn to ask local sections for funds.

South Texas Section donated \$5K last year and will again this year

**\* Foundation Addresses MAC – Eduardo Planc**

Others from the Foundation: Cathy Diana, Ayesha Mahmooda

**\* New Project: HBCU/MI Report (see PPT presentation)**

Dr. Sheena Reeves presented a plan (HBCU Inclusion Plan) to connect MAC to student chapters at Minority Serving Institutions.

**Highlights:**

Research into degrees awarded  
 Three institutions chosen to pilot this program  
 Foundation request for funds  
 Potential partnering with NSBE

**\* New Project: Formation of MAC Advisory Board – Otis Shelton, Chair**  
 (National Advisory Board and Leadership Development)

This is a new committee that MAC is exploring.

**Goals**

To advise MAC Leadership on critical issues  
 To be a resource of issues, history, barriers to minorities in engineering  
 Develop strategies to propose for addressing/barriers  
 Provide input (to be accepted or rejected) by Executive committee

**Action**

Prepare DRAFT Charter addressing, objectives, scope, goals, high level accountability matrix, deliverables and measures of success.  
 Work with MAC's ByLaws Committee to define bylaws for Advisory Board.  
 Suggest formation of MAC bylaws committee to identify need for specific bylaw changes and why

**\* New Project: Formation of MAC/AICHe Fellows Council – T. Mensah, Chair**

This is a new committee that MAC is exploring

**Mission:** Significantly increase the number of minority engineers' AICHe Fellows

**Goals:**

Maintain evergreen list of minority engineers who appear eligible for AICHe Fellows nomination  
 Seek and identify sponsors for AICHe Fellows nominations  
 Track AICHe Fellows nomination submissions and address roadblocks

**Action:**



Prepare proposed strategy for increasing number of minority engineering AIChE Fellows

**\* Treasurer Report (See slide):** Joe Howard

There has been a drop in Dues check-off from 23K to 14K from 2014 to 2015. Staff has been asked to investigate what changed. Can we know if electronic dues bill presents dues check-off option?

One-time large revenue and large one-time expense due to MAC@25 Foundation funding

**Fall Meeting Item:** Think about succession/elections

**Attendance**

Otis Shelton

Soni Oyekan

Syamal Poddar

Kate Ziemer

Emmanuel Dada

Irvin Osborn-Lee

Kathy Lee

James Abel

Zenaida Otero Gephardt

Megan Donaldson

Cathy Diana

Elroy Christie

Timothy O. Odi

Ayesha Mahmooda

Bette Lawler

Humbert Joseph Howard

Gordon Ellis

Telecon:

Isaac Gamwo

Christine Grant

Thomas Mensah