



American Institute of Chemical Engineers

The Western Palmetto Informer

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Contact Information

Visit our website:
www.aiche.org/wsc

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Message from the Chair

Our February meeting was great! My thanks to Dr. Thies and Dr. Norfolk who put in the work to make it go well. Anna Whitfield (ChE 24) did an excellent job getting things organized and arranging the food for the meeting. Congratulations to all our scholarship applicants. It may sound insincere in this day of participation trophies, but you are all winners. As I said at the meeting, people who are successful chemical engineers are by definition smart and hard-working. The uncommitted just don't make it as ChE students or professionals. For those of you who couldn't attend in person or virtually, you missed an excellent presentation from Dr. Thies. The uses he's working on for by-product lignin are a huge improvement on my work years ago using lignosulfonates to bind gypsum for peanut crops. I found it truly fascinating. The collaboration efforts with other universities he highlighted are a reminder for all of us that the best results come from cooperation and sharing.

Because our February meeting was late and the month was short, our March meeting is coming up very quickly. Our speaker will allow us to peer into the world of synthetic meat products and the role chemical engineering can play in that developing field. When I was in elementary school I heard all the dire predictions of starvation due to population growth. Then when I was in high school I read about the green revolution that used fertilizers, herbicides, pesticides, and hybrid seeds to vastly increase the food supply. Population has continued to grow along with the never-ending challenge to feed ourselves. Our profession played a huge role in the green revolution and I suspect will continue to be an integral part of meeting food challenges in the future, especially as we try to minimize the use of fertilizers and pesticides to reduce their impact on the environment. Who knows what our profession will get to work on next.

Best Regards,

Bill Thompson, Chair, WSC AIChE

NEXT MEETING - March 14, 2023

Mark Mathis at Jacobs Engineering Offices

The State of Plant-based and Cultured Meat Products

This presentation examines the current market of cultured and plant-based foods and the anticipated growth to displace the global consumption of conventional meat. The demand for plant and cultured meat products continues to grow and companies pursue high-throughput facility capacities to find a profitable economy of scale. As product biochemistry advances, factors such as taste, texture, perception, and consumer price point all impact commodity optimization. While facility designs and locations are driven by traditional factors of investment capital, resource availability, and future expansion goals, the cultured and plant-based meat industry straddles the line between global and regional codes and regulations. This industry remains in its infancy. New standards for food-grade cleanliness, product integrity, and consumer perception are emerging. Companies pursue global market share and capital and operational design efficiencies while aspiring to overcome the pitfalls of raw materials-to-product economics, regulatory and consumer perception, and cost-prohibitive facility designs.

Mark Mathis is a Process Engineering Director at Fluor, based in the Greenville, SC office. He has over thirty years of experience in engineered food facility design and biotech/pharmaceutical projects worldwide, including large-scale multiproduct CMOs for parentals, oral solid dosage, and small molecule technologies. He is a subject matter expert for both upstream and downstream custom process equipment. He is a champion for Fluor's rapidly expanding Cultured Food market. Mark has served as President for the Carolina South-Atlantic Chapters and North American/South American Affiliates Chapters for ISPE.

March Meeting Information

TITLE:	The State of Plant-based and Cultured Meat Products
DATE:	Tuesday, March 14, 2023
Event timing:	6:00 PM Social 6:30 PM Dinner 7:00 PM Presentation
LOCATION (in-person event):	Jacobs Engineering Offices 1041 E. Butler Road Greenville, SC 29607
COST	No charge if RSVP received
RSVP by 3/10/23	RSVP from WSC Section website if you plan to join us for dinner

Scholarships Awarded

The Western South Carolina Section of the American Institute of Chemical Engineers is pleased to support the Chemical Engineering program at Clemson University by awarding two scholarships, one of \$1500 and one of \$1000. The scholarships are awarded to returning Chemical Engineering students with a projected graduation date between August 2023 and May 2024.

The recipients were announced at the joint meeting between the Clemson Student Chapter and the Western South Carolina AIChE Section on February 21, 2023. 1st place, \$1,500, was awarded to Kayleigh Trumbull, 2nd place, \$1,000 was awarded to Mason Morris. The remaining applicants (seven in all) received \$50 gift cards.

Nominations for 2023-2024 Officers

Nominations for the section offices of Chair, Vice-chair, Secretary and Treasurer are now open. Current bylaws require officers be elected annually and that the chair and vice-chair may not succeed themselves after a full term in office. Secretary Walker and Treasurer Lindler have been serving in different officer roles for several years. Chair Thompson and Vice-Chair Young were new to the officer positions in 2022. We welcome nominations for all leadership positions. You may nominate yourself or someone else. You may submit your nominations via google form from the [website](#), email your nominations to sec@wscaiche.org, or send in your nominations to Secretary, Western South Carolina Local Section of AIChE, PO Box 212, Greenville, SC 29602. Nominations are requested by April 1, 2023 so the slate of nominees can be announced at the April meeting. Nominations can also be made during the April meeting.

Bylaws Update

Updates to the section bylaws have been under consideration since 2020. The national AIChE organization (the Institute) prepared a template for local sections to use, one which updates language and practices for the 21st century.

Bonnie McCourtie (newsletter editor and long-time member) and James Young (long-time member and vice-chair) are currently finalizing the proposed changes which will be available at the March meeting to allow for review and comment by membership. It is our intention to ratify the changes at the April 2023 meeting.

The proposed changes will be available on the website and by request for a minimum of 14 days prior to the April meeting.

You may direct inquiries and recommendations to Jim Young at vchair@wscaiche.org.

Opportunities to Assist

We welcome your participation on any level in this organization. Several committee positions are open, and this year's officers will gladly mentor members who would consider holding officer positions next year.

2022-2023 Officers and Executive Committee

POSITION	NAME	COMPANY	E-MAIL
Chair	Bill Thompson	Ortec	bthompson@ortecinc.com chair@wscaiche.org
Vice-Chair	James Young	Fluor	James.H.Young@fluor.com vchair@wscaiche.org
Secretary	Conny Walker	Independent	sec@wscaiche.org
Treasurer	Jacob Lindler	aeSolutions	jllindler@yahoo.com treasurer@wscaiche.org
Past Chair	Conny Walker	Independent	connyw@earthlink.net
Newsletter	Bonnie McCourtie	Retired	brim502@charter.net
Webmaster	(open)		
Historian	(open)		
Executive Committee	Karl McCaleb	Mitsubishi	kmccaleb2@bellsouth.net
	Anastase Ghionis	Omega Chemicals	info@omegachemicals.com
	Donald P Gurney, Jr., ScD, P.E.	Consultant	degurney@charter.net
	Anil Wagle	Retired	Anilwagle123@gmail.com
	Devon Clymer	Jacobs	Devon.clymer@jacobs.com
	Ann Marie Jones	Retired	annmjones@aol.com

2022-2023 Calendar of Events

DATE	LOCATION	TOPIC
March 14, 2023	Jacobs GVL Eng Offices	Plant-based and Cultured Meat Products
April 2023	Tentative Date April 11, 2023	Plant Tour - TBD
May 9, 2023	Tentative -Fluor Management Center	WSCAICHE May Social