Abstract Submission Guidelines
Version 3 | Updated October 25, 2021

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Thank you for your interest in submitting quality and original research for presentation at the 2022 AOCS Annual Meeting & Expo!

AOCS invites you to submit an abstract and take advantage of the opportunity to have your work peer reviewed by experts in the field. If accepted, your abstract will be published in an online supplement of the Journal of the American Oil Chemists’ Society (JAOCS) and displayed in the distinguished international venue of the 2022 AOCS Annual Meeting & Expo.

**Submission System & Deadline**

All authors wishing to contribute papers to the AOCS Annual Meeting & Expo must submit an online abstract for review by the Program Committee and session chairpersons. The CadmiumCD Abstract Scorecard is the online meeting programming system used by AOCS presenters, Program Committee members, and session chairpersons to submit, view, review, and edit abstracts for the AOCS Annual Meeting. Instructions for navigating the AOCS Abstract Submission System are included in Section 4.

A checklist of information requested at the time of abstract submission can be found in Appendix C.

Abstracts will be collected via the AOCS Abstract Submission System starting September 1, 2021. January 13, 2022, is the submission deadline for oral abstracts, and February 14, 2022, is the submission deadline for poster abstracts. Abstracts received after the submission deadline will be placed on a waiting list and reviewed by the Program Committee and session chairpersons only if time and space allow.

**Abstract Reviews**

Abstract reviews will begin by the Program Committee and session chairpersons on November 15, 2021.

Abstracts submitted for the Technical Program that deal with commercial products or services must have a scientific emphasis and should not be submitted for promotion purposes. Abstracts should minimize use of proprietary nomenclature or company name as well. The only exception to this is a specific session where the following disclaimer is noted:

Normal restrictions on the use of product trade names and logos are suspended so that presenters can freely discuss commercial aspects and opportunities of their products.

Individuals interested in promoting a particular commercial product or service are encouraged to present within the Industry Updates sessions. Presentations within these sessions may be commercial in nature.

Abstracts will be evaluated separately using the following criteria:

- Relevance to session topic,
- Creativity and originality of content, and
- Tangible message, solutions, and best practice(s).

The AOCS Program Committee and session chairs reserve the ultimate right to select abstracts for
presentation based on quality factors including, but not limited to:

- Scientific merit,
- Relevancy to the session focus,
- Innovation,
- Practical application of content,
- Pertinence to division and tracks, and
- Pertinence to target audience(s).

Abstracts failing to meet one or more quality factors will not be selected.

**Acceptance & Scheduling Notices**

Authors will be notified by February 21, 2022, via email, as to the status of their abstract(s) and will be given detailed instructions regarding their presentations. Only the presenting author will receive e-mail notification of abstract status. It is the responsibility of the presenting author to ensure that they have a valid and current email address in the AOCS Abstract Management System.

If accepted, it is the responsibility of the presenting author to inform all coauthors and faculty advisors of disposition status and abstract scheduling information. Please check with all authors regarding acceptance before contacting AOCS.

Once acceptance and scheduling notices have been sent, you may also view them in the AOCS Abstract Submission System.

**Registration Requirement**

All presenting authors (oral, poster, invited, volunteer, etc.) are required to register and pay the published registration fee to present and attend the AOCS Annual Meeting & Expo. All presenters must be registered by April 4, 2022.

Registration will be available at annualmeeting.aocs.org beginning in January 2022. AOCS does not reimburse presenters for registration fees or other expenses incurred during the Annual Meeting. There is no reduced registration rate for invited presenters.

Failure to register for the meeting by April 4, 2022, will result in the automatic withdrawal of your abstract from the official meeting program.

**Available Travel Grants and Funding**

AOCS offers more than 40 opportunities for presenters at the AOCS annual meeting to gain recognition for their hard work and achievements in the form of professional and student awards as well as travel grants. October 1, 2021, is the submission deadline for Student Awards. December 18, 2021, is the submission deadline for junior researcher and student Travel Grants. Each award has its own specific and unique nomination requirements. Learn more about AOCS awards.

**Visa Letters**

Personalized visa letters are available for presenting authors once your abstract has been accepted for presentation during the AOCS Annual Meeting.

If you require a visa letter, please send the following to Lauren Rohde at lauren.rohde@aocs.org:
Section 2: Session Types

The AOCS Annual Meeting & Expo is a premier international science and business form on fats, oils, proteins, surfactants and related materials. Over 3,000 professionals from more than 80 countries attend the Annual Meeting, representing the industry's most prestigious corporate, government and academic institutions. Known for its extensive technical program, the Annual Meeting features more than 650 oral and poster presentations within 10 interest areas, as well as select featured sessions.

Technical Program
The AOCS Program Committee, chaired by Eric (Rick) Theiner, Evonik, USA (eric.theiner@evonik.com), oversees development of the meeting’s Technical Program.

The Annual Meeting’s technical program will feature invited presentations by leading industry experts, as well as volunteer oral and poster presentations. Submit your abstract via the AOCS Abstract Submission System for consideration. Instructions for navigating the AOCS Abstract Submission System are included in Section 4.

<table>
<thead>
<tr>
<th>Interest Area</th>
<th>Submission Type</th>
<th>Presentation Type</th>
<th>Organizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical</td>
<td>Invited Volunteer</td>
<td>Oral Poster</td>
<td>Giorgia Purcaro, University of Liège, Belgium <a href="mailto:gpurcaro@uliege.be">gpurcaro@uliege.be</a></td>
</tr>
<tr>
<td>Biotechnology</td>
<td>Invited Volunteer</td>
<td>Oral Poster</td>
<td>Todd Underiner, Procter &amp; Gamble, USA <a href="mailto:underiner.tl@pg.com">underiner.tl@pg.com</a></td>
</tr>
<tr>
<td>Edible Applications Technology</td>
<td>Invited Volunteer</td>
<td>Oral Poster</td>
<td>Filip Van Bockstaele, Ghent University, Belgium <a href="mailto:Filip.VanBockstaele@UGent.be">Filip.VanBockstaele@UGent.be</a></td>
</tr>
<tr>
<td>Health and Nutrition</td>
<td>Invited Volunteer</td>
<td>Oral Poster</td>
<td>Matthew (Matt) Miller, Cawthron Institute Nelson, New Zealand</td>
</tr>
</tbody>
</table>
Hot Topic Symposia
With the constant evolution of emerging technologies, innovative research and updated regulations, the fats and oils industry must keep up. The Hot Topic Symposia is a chance for us to come together to address how critical shifts and related transformations, both current and on the horizon, will impact the business of fats and oils.

The Hot Topic Symposia is populated by session ideas submitted by volunteer organizers. Submit your session proposal via the AOCS Abstract Submission System for consideration. Instructions for navigating the AOCS Abstract Submission System are included in Section 4.

Please be sure to select “Hot Topic Session Proposal” during the Submission Type step so your session proposal is routed to the correct reviewers.

Industry Updates (Exhibitor Presentations)
Industry partners are encouraged to join the Annual Meeting program. Presentations within the Industry Updates sessions can be as commercial as necessary; overviews of your company or dedicated to a specific product.

Submit your commercial presentation abstract via the AOCS Abstract Submission System for consideration. Instructions for navigating the AOCS Abstract Submission System are included in Section 4.

Please include an intriguing title for your presentation and be sure to select “Commercial Presentation Abstract Submission” during the Submission Type step so your abstract is routed to the correct reviewers.

If you have questions related to a commercial presentation, exhibiting or sponsorship, please contact Clara Chun, AOCS Customer Success Manager, at +1 708-320-9024 or clara.chun@aocs.org.

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AOCS Student ePoster Pitch Competition
The Student ePoster Pitch Competition was designed to give student researchers an opportunity to highlight their achievements, demonstrate their ability in scientific presentations, and receive important feedback and mentoring from industry leaders.

The competition is open to individuals who are full-time students at the time of submission for work recently performed while enrolled in an undergraduate, graduate or doctoral degree program. See Appendix A for more details.

Contact Information
If you have questions about the AOCS Annual Meeting, please contact Lauren Rohde, Manager, AOCS Education and Meeting Programs at +1 217-693-4831 or lauren.rohde@aocs.org.

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Section 3: Program Goals & Guidelines

Technical Program Goals
The AOCS Annual Meeting brings together the global community of chemists, nutritionists, engineers and business leaders who are advancing the science of fats, oils, proteins, surfactants and related materials.

For the 2022 AOCS Annual Meeting & Expo, AOCS will continue and expand upon its tradition of program quality by:

- Providing cutting-edge, top quality scientific research and programming by leading professionals and researchers in the fats and oils industry.
- Offering relevant research and programming on key focus areas facing professionals from industry, academia and government working in all areas of the fats and oils supply chain.
- Presenting both basic and transformative research and applied science.
- Offering virtual abstract presentation options so research can still be shared industry-wide if travel remains restricted for some.
- Creating a digital library of on-demand content for Annual Meeting attendees to access from the comfort of their home or office.
- Providing the entire library of presentation abstracts within an online supplement of the Journal of the American Oil Chemists' Society (JAOCS).

Each year, hundreds of abstracts are submitted to AOCS for consideration. The AOCS Program Committee and session chairpersons are charged with reviewing all abstracts and selecting the premier submissions to be included in the Annual Meeting program. An accepted abstract honors the scientific and scholarly achievements of the presenters and contributes to the growth of the fats and oils industry.

AOCS welcomes and appreciates all who submit abstracts and looks forward to another successful AOCS Annual Meeting & Expo!
General Guidelines for Abstracts

- The data presented must be substantive. AOCS discourages the submission of incomplete research at the time of submission. Recent results may be added at the time of presenting. However, the results shown in the abstract must be substantive.
- Papers under review for publication may be submitted for presentation.
- Abstracts should address the following:
  - Justification
  - Objective
  - Methods
  - Results
  - Significance of your research to the AOCS membership
- Authors should not split data to create several abstracts from one study. If two or more abstracts on related topics with minimal information are submitted, priority of related abstracts will be reduced.
- Data must represent new findings obtained using the scientific approach.
- Data similar to previous presentations should not be submitted. Findings should be stated in sufficient detail to support conclusions. Updated research related to a previous presentation needs to be indicated in the abstract.
- The abstract must cite quantitative data from representative experiments. Do not simply state that the results will be discussed.
- Abstracts submitted for the Technical Program that deal with commercial products or services must have a scientific emphasis and should not be submitted for promotion purposes. The only exception to this is a specific session where the following disclaimer is noted:
  - Normal restrictions on the use of product trade names and logos are suspended, so that presenters can freely discuss commercial aspects and opportunities of their products.
- Individuals interested in promoting a particular commercial product or service are encouraged to present within the Industry Updates sessions. Presentations within these sessions may be commercial in nature.
- All abstracts must use correct grammar and punctuation. Proofread very carefully for formatting, spelling and grammar to avoid errors before submission. Abstracts will not be edited prior to publication.
- Incomplete abstracts and session proposals will not be reviewed.

A checklist of information requested at the time of abstract submission can be found in Appendix B. This checklist enables submitters to prepare their submissions prior to submitting online if they prefer.

Please note that required submission fields for abstract proposals will differ slightly based on the submission type chosen. Please contact AOCS with any questions regarding submission type specific fields.

Contact Information
If you have questions about the AOCS Annual Meeting, please contact Lauren Rohde, Manager, AOCS Education and Meeting Programs at +1 217-693-4831 or lauren.rohde@aocs.org.

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Section 4: System User Guide

The CadmiumCD Abstract Scorecard is AOCS’ Abstract Management System. The online system will allow you to view, edit, and prepare abstracts seamlessly in a central location.

Logging In

The AOCS Abstract Management Submission System can be accessed using your AOCS username and password.

More than likely you already have an AOCS username and password, which are used to login to many AOCS services like inform|connect. If you do not have an AOCS login, you will have the opportunity to create one.

To access the CadmiumCD Abstract Scorecard:
1. Visit the AOCS Abstract Management Submission System
2. Click “Login.”
3. You will be redirected to aocs.org. Enter your AOCS username and password.
4. You will be redirected back to the CadmiumCD Abstract Scorecard. Verify your contact information. If incorrect, follow the steps on the screen before proceeding. If correct, proceed to step 5.
5. Click “Proceed.”
6. Review the privacy notice, check the box to consent and enter your full name on the line. Click “Continue.”

Creating an ID

If you do not have an AOCS username and password, you may create one for free; AOCS Membership is not required. To create an AOCS username and password:
2. Enter your email address in the box provided and click “Continue.”
3. Provide all required information marked with an asterisk (*).
4. Complete the checkboxes for “Consent Capture” and click “Next.”
5. Congratulations, you now have an account with AOCS!
6. Return to the CadmiumCD Abstract Scorecard with your new AOCS username and password.

Privacy Notice

When you first log in, the CadmiumCD Privacy Notice will appear. Please be sure to read the notice in full. All submitters and authors are required to click the checkbox to acknowledge their consent to the Privacy Notice, as well as type in their electronic signature.
How to Enter Your Abstract into the System

1. **Begin Your Abstract**

   From the Welcome Screen, locate the PROPOSALS section and click the green “Click here to begin a new abstract.”

   Start your submission with your **Proposal (Abstract) Title** and **Submission Type**. Both fields are required to proceed to the next page.

   **Title**

   Clearly identify the focus of the abstract in 200 characters or less. The title should be entered in sentence case. Capitalize only the first letter of the title, any proper nouns or acronyms, and the first word following a colon (:). Do not begin abstract titles with "The", "A", or "And" and do not end titles with a period (.)

   **Submission Type**

   Select the type of submission from the drop-down menu. Submission type descriptions are located on the page for your reference. Select from the following submission types:

   - Invited Abstract—Select if you were approached by a session chair to present specifically within their session.
   - Volunteer Oral Abstract
   - Industry Update Presentation Abstract (Fast Track)
   - Poster Abstract
   - Award Winner Abstract
   - Hot Topic Session Proposal
• Hot Topic Abstract Proposal

Once you have completed the title and submission type, click the “Submit” button.

**Note:** Selecting a preference for an oral or poster presentation does not guarantee placement. Final presentation type will be determined by the Program Committee based on quality and subject matter that best fits the meeting program.

2. **Complete Your Abstract Tasks**
After you enter submit your title and submission type, you will be taken to the Task List page. Please keep in mind that assigned tasks will differ slightly based on submission type.
This page will show all the assigned tasks you must complete to fully submit your abstract. Click on the blue hyperlinked title of the task to be taken to each individual task page.

**Task #1: AOCS Presenter Agreement**
You must read, mark the check box, and electronically sign the AOCS Speaker Agreement. Once you have completed the agreement, click the “Submit Agreement” box. You will then return to the task list page. The presenter agreement text is available in Appendix C.

**Task #2: Add the Abstract Text to this Submission**
This task will allow you to add the body of your abstract to your submission. This task includes the below required fields:

- **Proposal (Abstract) Title:** Review your previously entered title.

- **Select Interest Area**: Select the interest area related to your abstract from the following options:
  - Analytical
  - Biotechnology
  - Edible Applications Technology
  - Health and Nutrition
  - Industrial Oil Products
  - Lipid Oxidation and Quality
  - Phospholipid
  - Processing
  - Protein and Co-Products
• Surfactants and Detergents

Once you have selected your interest area, you will also be asked to select the specific session to which you are submitting. Session topics will populate based on the interest area chosen.

*Please note that not all submission types will be asked to select an interest area or a session topic*

If you are not sure of the session topic, choose the topic that you believe is most applicable to your abstract content. The Division Program Chairs will review submissions and suggest moving an abstract to a different topic if applicable.

Abstract: The abstract word limit (total characters) is 300 words or 2,500 characters. You are allowed a maximum of two (2) tables and/or images. The tables/images can be added during the “Upload image(s) task.”

Standard abbreviations may be used without definition. Nonstandard abbreviations must be kept to a minimum and must be placed in parentheses after the first use of the word or phrase abbreviated. Do not include self-citations, references, keywords, bibliographies, acknowledgments, support/grants, or disclaimers in your abstract. Any references found in the abstract will be removed before publication.
Abstracts and presentations within the Technical Program that deal with commercial products or services must have a scientific emphasis and should not be submitted for promotion purposes. Presentations within the Hot Topic Symposia and Fast Track may be commercial in nature.

Carefully proofread and check your submission for accuracy; abstracts will be published as submitted. If your abstract does not comply with these requirements, you will be asked to adjust the text before a final decision can be made by the Session Chairs.

Once you have completed all the required fields for this task, please click “Continue” to save the information and be taken back to your task list page.

**Task #3: Provide Author and Co-Author Information**

Add the list of authors for your abstract and identify who will be the presenting author. Provide the following information for each author:

- **Name**: First, Middle Initial, Last
- **Organization/Affiliation**
- **Country**
- **Valid Email Address**
Once you have entered your authors, please click “Save Authors” to save the information and be taken back to your task list page.

**Task #4: Upload image(s) for your Abstract (Optional)**

You can add up to two tables and/or images to support your abstract. If you do not wish to upload any files, please click the “I have nothing to upload” check box to opt out.
Once you have uploaded your files or opted out, please click “Continue” to save the information and be taken back to your task list page.

3. **Preview and Submit Your Proposal**

Once you have completed all the required tasks for your submission, you will see a green checkmark for each task on your task list page. Please make sure to click “Save Submission.”

After your tasks have been completed and your submission is saved, you can preview your proposal.

Please make sure that you click on “Submit” before the January 13 deadline or your abstract will not be reviewed!
You will receive a confirmation email once your abstract has been fully submitted.

**Helpful Information for Submitters**

You do not have to complete all the tasks at once. If you save your submission, you can log back into the submission system at anytime before the submission deadline to edit, review, and submit your proposal.

You can click on the task bar to go back to another section of the submission to view/make edits. For example:

- **“Home”** will take you back to the main landing page. From the home page, you can see the title and status for all your abstract submissions.

- **“Proposal”** will take you to the title page for the submission you are currently working in. From the proposal page you can update your title, change your submission type, and
Withdraw your proposal from consideration.

- “Tasks” will take you to your task list page for the abstract you are working in. From the task page you can click on all your assigned tasks.

**Checking Your Abstract Status**

Before the submission deadline, you can verify whether your abstract proposal has been fully submitted by logging into your AOCS Abstract Management Submission System account and checking the main landing page. The status of the proposal is listed underneath the title.

If the status is “INCOMPLETE,” then the proposal is missing some elements and hasn’t been submitted. If the status is “Complete,” then the proposal has been fully submitted.

**Withdrawing an Abstract Submission**

You may withdraw your abstract if you no longer wish to present your abstract at the meeting. However, except under extraordinary circumstances, AOCS does not allow withdrawal of a paper less than two weeks before the Annual Meeting. If an author cannot attend the meeting, one of the remaining co-authors is responsible for the presentation. This will avoid discontinuity in the session.

**Prior to Review**

Reviews begin **November 15, 2021**. Prior to that date, login to your abstract submission account. After you click on the proposal title, you can then click on Edit. Scroll to the bottom of the page to select “Withdrawn” as the Proposal Status in the drop-down menu. Then click on “Update Proposal”.

**After Reviews Begin**

To withdraw an abstract on or after November 15, 2021, please contact Lauren Rohde, Manager of...
Education and Meeting Programs, at lauren.rohde@aocs.org.

Contact Information
If you have questions about the AOCS Annual Meeting, please contact Lauren Rohde, Manager, AOCS Education and Meeting Programs at +1 217-693-4831 or lauren.rohde@aocs.org.

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Appendix A:
AOCS Student ePoster Pitch Competition

Sponsored by the AOCS Foundation
Supported by the AOCS Divisions

The AOCS community is a unique mix of professionals from industry, academia and government working in all areas of the fats and oils supply chain, from field to product. Supporting students in the lipid science and oil technology fields has always been an important mission to AOCS.

The Student ePoster Pitch Competition is designed to give student researchers an opportunity to highlight their achievements, demonstrate their ability in scientific presentations, and receive important feedback and mentoring from industry leaders.

AOCS invites all student researchers to submit their ePoster presentation within any one of ten interest areas (Divisions):

- Analytical
- Biotechnology
- Edible Applications Technology
- Health and Nutrition
- Industrial Oil Products
- Lipid Oxidation and Quality
- Phospholipid
- Processing
- Protein and Co-Products
- Surfactants and Detergents

ePosters will be presented as a single page PDF with static text and images. Up to five finalists will be selected from each interest area to give a 5-minute oral presentation during the AOCS Annual Meeting & Expo. At the conclusion of each Division’s oral competition session, the viewing audience will be encouraged to vote for their favorite pitch!

All accepted poster abstracts, PDFs and live presentations will be available to all 2022 AOCS Annual Meeting & Expo attendees and the general public on the AOCS website(s).

View the ePoster Pitch Competitions from the 2021 AOCS Annual Meeting:

- Analytical
- Biotechnology
- Edible Applications Technology
- Health and Nutrition
- Lipid Oxidation and Quality
- Processing
- Protein and Co-Products

Eligibility

The competition is open to individuals who are full-time students at the time of submission for work recently performed while enrolled in an undergraduate, graduate, or doctoral degree program.

All presenters – including those participating in the Student ePoster Pitch Competition – are required to register and pay the published registration fee to present and attend the AOCS Annual Meeting & Expo. All presenters must be registered by April 4, 2022.

Registration will be available at annualmeeting.aocs.org beginning in January 2022. Discounted
registration rates will be available for AOCS student members.

Failure to register for the meeting by April 4, 2022, will result in the automatic withdrawal of participation from the Student ePoster Pitch Competition.

Judging Panels
Leadership of AOCS’ ten Divisions (interest areas) will hand-select the judging panel for their competition. Judging panels may include Poster Chairpersons, AOCS Division members, and members of AOCS’ Professional Educators Common Interest Group.

More information coming soon!

Contact Information
If you have questions about the AOCS Student ePoster Pitch Competition, please contact Lauren Rohde, Manager, AOCS Education and Meeting Programs at +1 217-693-4831 or lauren.rohde@aocs.org.

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Appendix B:
Abstract Submission Checklist

Please have the following information ready when you access the online AOCS Abstract Submission System:

- Abstract Title (200 characters max)
- Type of submission: Oral, poster, etc.
- Session Interest Area
- Session Topic
- Review or Original Research?
- Abstract Body (300 words max)
- Author and Co-author information, including: First, Middle Initial, Last name, country, organization/affiliation, and valid email address
- Images (up to 2 tables/images to support your submission)

Contact Information
If you have questions about the abstract submission system, please contact Lauren Rohde, Manager, AOCS Education and Meeting Programs at +1 217-693-4831 or lauren.rohde@aocs.org.

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Appendix C: Presenter Agreement

By uploading my abstract and any additional presentation materials here, I am agreeing to:

Allowing the American Oil Chemists’ Society to share my abstract, presentation and supporting materials on the Cadmium virtual meeting platform during the 2022 AOCS Annual Meeting & Expo. My abstract, presentation and supporting materials will be added to the AOCS permanent meeting record and may be made available by April 2022. My abstract will be published in its entirety as part of the 2022 AOCS Annual Meeting & Expo collection of abstracts and as part of the permanent meeting record. Presenters on the AOCS Virtual Meeting platform will receive a citable DOI.

I represent and warrant that, to the best of my knowledge:

My presentation whether oral or poster does not include anything defamatory, libelous, or otherwise unlawful, violates any right of privacy, or infringes any duty of confidentiality owed to another party or violates any contract, express or implied. Further, I also represent:

a. the content of the abstract and of the presentation is accurate;
b. the presentation is my original work and any contributors who have been involved in such research or preparation have been appropriately identified;
c. the abstract and presentation do not violate any copyright, proprietary, confidentiality, or personal rights of others;
d. the presentation will be educational in nature, will not promote any product or service, and will not contain any false or misleading statements regarding any products or services or include materials that are slanderous, libelous, or otherwise illegal; and
e. I am authorized to make these representations and to agree to the terms of the AOCS Abstract Submission Guidelines on behalf of my company or institution.

I hereby indemnify and hold harmless the American Oil Chemists’ Society, its officers, directors, staff, agents, and representatives from and against any and all claims, actions, losses, demands, costs, reasonable attorneys’ fees, and other expenses arising from the inaccuracy or breach of any of the foregoing representations and warranties.

Contact Information
If you have questions about the abstract submission process, please contact Lauren Rohde, Manager, AOCS Education and Meeting Programs at +1 217-693-4831 or lauren.rohde@aocs.org.

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Appendix D:
Session Descriptions

Session descriptions are listed by interest area. Joint sessions between two interest areas are noted. In the AOCS Abstract Submission System, a joint session will be listed under each Interest Area.

Session Topics and Descriptions

ANALYTICAL

Program organizer: Giorgia Purcaro, Professor, Gembloux Agro-Bio Tech, University of Liège, Belgium

**Advanced Methods of Analysis, Including Lipidomics**
Advanced and emerging technologies to characterize and quantify lipids in oils, fats, biological and food matrices.

*Session chairs: William C. Byrdwell, Research Chemist, USDA ARS BHNRC MAFCL, USA and Hari Kiran Kotapati, Post-Doctoral Associate, USDA-ARS, University of Maryland College Park, USA*

**Analysis of Less Abundant Lipids**
Analysis of low abundant lipid classes such as glycolipids and sphingolipids in edible oils, fats and matrices containing these fats.

*Session chairs: Kim Ekroos, CEO, Lipidomics Consulting Ltd., Finland and Federico Torta, Research Assistant Professor, National University of Singapore, Singapore*

**Authentication of Olive Oil**
Development of novel and rapid analytical methods to differentiate olive oil of different quality grades, geographic origins and to detect adulteration.

*Session chairs: Selina Wang, Faculty, University of California, Davis, USA and Enrico Valli, Senior Assistant Professor, Alma Mater Studiorum-Università di Bologna, Italy*

**Authentication of Avocado and other High-Value Oils**
Development of analytical methods and standards to ensure the authenticity and quality of high-value oils other than olive oil, such as avocado oil.

*Session chairs: Selina Wang, Faculty, University of California, Davis, USA and Jill Winkler-Moser, Research Chemist, USDA, ARS, NCAUR, USA*

**AOCS Official Methods**
Procedural and technology updates to current AOCS methods that reflect the changing scientific landscape. Updates from the Technical Committee may also be discussed.

*Session Chairs: Susan Seegers, Technical Operations Manager, Bunge, USA and Mark Collison, Director of Analytical Chemistry, ADM, USA*

**Novel Analytical Tools to Assess Oil Quality and Oxidation**

*Joint session with Lipid Oxidation and Quality Division*

Novel approaches for analyzing more oxidation products in greater detail and with greater
sensitivity, including analysis of individual non-volatile products, lipidomic approaches to tracking product distributions and methods for tracking co-oxidation reactions that remove lipid oxidation products.

Session Chairs: Matthew Fhaner, Chair and Associate Professor of Chemistry, University of Michigan-Flint, USA; Rick Della Porta, Senior Principal Scientist/Analytical Oils SME, Pepsico/Frito-Lay, USA; and Fernanda Furlan Goncalves Dias, Postdoctoral Researcher, University of California, Davis, USA

Trace Contaminants
New or improved analytical methodologies, method validation, occurrence and/or-risk assessment and regulative aspects of analysis for trace contaminants such as MCPD/glycidyl esters, MOSH/MOAH, and phthalates, including contaminants that may become relevant in the future.

Session Chairs: Jessica Beekman, Research Chemist, US Food & Drug Admin, USA and Jan Kuhlmann, Teamleader Chromatography, SGS Germany GmbH, Germany

Edible Oil Contaminants — Analysis and Industrial Perspective
Joint session with Processing Division
Research and innovation highlighting the role of edible oil processing techniques in the mitigation and formation food contaminants as well as analytical and other solutions for monitoring and improving the quality of intermediate and finished products.

Session Chairs: Jan Kuhlmann, Teamleader Chromatography, SGS Germany GmbH, Germany and Wim De Greyt, Senior R&D Manager, Desmet Ballestra Group, Belgium

Phospholipid Analysis
Joint session with Phospholipid Division
Improvements in current analytical methods and the development of novel approaches to meet the challenge of comprehensive analysis of phospholipids and provide insights into agriculture, nutrition, biological chemistry and medical science.

Session Chairs: Michael Bukowski, Chemist, USDA-ARS, USA and Francesca Giuffrida, Team Leader, Nestle Research Center, Switzerland

Standardize/Novel Analytical Methods for Protein Analysis in Food
Joint session with Protein and Co-Products Division
Research, innovation and standardization for analytical methods to determine nutritional and techno-functional properties of food proteins, especially from emerging protein sources.

Session Chairs: Sneh Bhandari, Independent Consultant, USA; Janitha Wanasundara, Research Scientist, Agriculture and Agri-Food Canada, Canada; and Frederic Baudouin, Project Manager, Improve SAS, France

Rapid and High-throughput Screening Methods
Research and method development that addresses the urgent demand for rapid, screening analytical tools to accelerate data acquisition and decision making.

Session Chairs: David Barr, Product Manager – AIC (Applied, Industrial & Clinical MR Market Division), Bruker BioSpin Corp., USA and Torben Kuechler, Head of Food Testing Laboratory, Eurofins Analytik GmbH, Germany

Surface Methods
Joint session with Surfactants and Detergents Division
Research using surface techniques such as ellipsometry, QCM-D, and AFM to understand how ingredients, products and formulations work at and with various substrates, and how those learnings can be used to make better decisions in product development.

Session Chair: Rick Theiner, Technical Applications Development Manager, Evonik Industries, USA

Dutton Award Symposium
The Herbert J. Dutton Award recognizes significant contributions in the analysis of oils, fats and lipids. Submit an abstract for this session for the opportunity to present your work, meeting the highest standard of excellence in the analytical chemistry of lipids, following the 2022 award presentation.

Session Chair: Giorgia Purcaro, Professor, Gembloux Agro-Bio Tech, University of Liège, Belgium

General Analytical Methods
Papers that go beyond the topic-specific sessions or cover new areas of research or new analytical approaches.

Session Chairs: Pierluigi Delmonte, Research Chemist, US Food and Drug Administration, USA and Lisa Clement, Senior Research Chemist, Cargill Inc., USA

Analytical Poster Session
This poster session is dedicated to up-to-date, high-quality research relevant to analytical chemistry, method development, validation and instrumental advancements.

Session Chairs: Lisa Clement, Senior Research Chemist, Cargill Inc., USA and Ali Reza Fardin Kia, PhD, Center for Food Safety and Applied Nutrition, Office of Regulatory Science, U.S. Food and Drug Administration, USA

BIOTECHNOLOGY
Program organizer: Todd Underiner, Director, Procter & Gamble, USA

Gene Editing Technologies
Next generation plant genome editing to deliver new traits for the production of oils, fats, proteins and related co-products. Research and development, innovations in CRISPR technology, and discussion of global regulatory and policy environments.

Session Chair: Tim Ulmasov, Chief Technology Officer, CoverCress, Inc., USA

Biocatalysis — Enzyme Processing
Innovations in enzyme catalysts from early stage discovery to development and commercial utilization, including the use of genetic engineering to dramatically change enzyme properties to reduce costs, produce less waste, and help decrease energy, water and toxic chemical use.

Session Chairs: Jun Ogawa, Professor, Kyoto University, Japan and Lu-Kwang (Luke) Ju, Professor, The University of Akron, USA

Biopolymers
Joint session with Industrial Oil Products Division
Synthesis, characterization and production of polymers derived from renewable and/or lipid-based precursors that match, if not improve, the properties demonstrated by petroleum-based materials, making these biopolymers appealing in widespread applications.
Session Chairs: Eric Cochran, Professor, Iowa State University, USA and Rick Ashby, Research Microbiologist/Lead Scientist, USDA/ARS/ERRC, USA

Biosurfactants (LCA/Sustainability)
Joint session with Surfactants and Detergents Division
Development, formulation and applications of surfactants of microbial origin in commercial products, including personal and home care products, cosmetics, pharmaceuticals and environmental applications.
Session Chairs: Phillip Vinson, Research Fellow, The Procter & Gamble Company, USA; George Smith, Research Associate, Sasol, USA; and Doug Hayes, Professor, University of Tennessee, USA

New Crops for Oils/ Feedstock Engineering
Joint session with Industrial Oil Products Division
Research and development of next-generation oils, including development of new oilseed crops with different properties and crops that can be grown during the off-season or in areas not suitable for traditional commodity crops.
Session Chairs: Roque Evangelista, Research Chemist, USDA ARS NCAUR, USA and Mahesh Khot, Senior Scientist, Farmsow Pvt. Ltd., India, North America

Fermentation
Joint session with Processing Division
Research and developments at the interface of biotechnology and process engineering that are transforming our industry including trait selection and engineering of microbes for expression, distribution and yield of high-value products. New techniques enabling precise control and monitoring of fermentation conditions.
Session Chairs: Tsunehiro Aki, Professor, Hiroshima University, Japan and Mahesh Khot, Senior Scientist, Farmsow Pvt. Ltd., India, North America

Improving Protein Quality/Content
Joint session with Protein and Co-Products Division

Lipid and Oil Improvements
Technology breakthroughs in the production of functional lipids for improving health and nutrition, including enhancements in fermentation, the selection of micro-organism, growing conditions and procedures to recover oil and improve lipid quality and stability.

Non-food Applications of Proteins
Joint session with Protein and Co-Products Division
Current research on the use of proteins of different origins in non-food applications including but not limited to pet foods, aquafeed, animal feed and in industrial polymeric applications.
Session Chairs: Nandika Bandara, Assistant Professor and Canada Research Chair, University of Manitoba, Canada; Yixiang Wang, Assistant Professor, McGill University, Canada; and Bishnu Karki, Assistant Professor, South Dakota State University, USA

General Biotechnology
Papers that go beyond the topic-specific sessions or cover new areas of research in biotechnology and sustainable materials.
Session Chair: Todd Underiner, Director, Procter & Gamble, USA
**Biotechnology Poster Session**
This poster session is dedicated to up-to-date, high-quality research relevant to the use of biotechnology in the production or characterization of lipids, fats and oils, new processes for isolating and purifying oils and oil products, the use of gene editing to tailor traits, improve quality or increase yields.

**EDIBLE APPLICATIONS TECHNOLOGY**
Program organizer: Filip VanBockstaele, Ghent University, Belgium

**Fat Crystallization**
The implications and use of fat crystallization to direct textural and organoleptic properties in food applications, including fat selection, the role of other food ingredients, and the effect of food processing on product structuring for confections, baking, margarines, ice cream and other applications.

**Session Chairs**: Alejandro G. Marangoni, PhD, Professor and Canada Research Chair, University of Guelph, Canada and Eckhard Floter, PhD, Chair Food Process Engineering, Technical University Berlin, Germany

**Interactions Between Lipids and Other Ingredients in Plant-based Products**
Understanding and steering interactions between lipids and other ingredients to develop structures and sensory properties in fully plant-based foods and mimic traditional dairy-or meat-based products.

**Session Chair**: Karel Hrncir, PhD, Global Lead Ingredients (R&D), Upfield, Netherlands

**Implications of Lipids Structuring in Food Applications**
Application of fat crystallization in food applications for textural and organoleptic attributes. The role of fat selection, food ingredients and the effect of food processing on product structuring for confections, baking, margarines, ice cream and other applications.

**Session Chair**: Nuria C. Acevedo, PhD, Associate Professor, Iowa State University, USA

**Novel Edible Application of Food Proteins**
*Joint session with Protein and Co-Products Division*
Opportunities and challenges associated with emerging edible applications of plant proteins including novel plant-based meat and dairy alternatives.

**Session chairs**: Pulari Krishnankutty Nair, Sr. Product Developer, Danone North America, USA and Serpil Metin, Principal Product Developer, Cargill, USA

**Phase Transitions and Interfacial Phenomena in Complex Food Systems**
Multi-scale structuring of multicomponent foods and its influence on functionality, with particular focus on the role of surfaces and interfaces on relevant phenomena such as phase transitions, rheology and structure formation. Examples include gels, emulsions and foams. Industry-relevant topics such as clean label formulations, natural ingredients and optimized structure formulation will be discussed.

**Session Chair**: Andrew J. Gravelle, PhD, Postdoctoral Researcher, University of Guelph, Canada

**Surfactants in Food**
*Joint session with Surfactants and Detergents Division*
The food industry is trying to replace many synthetic surfactants with natural alternatives or formulate new products entirely from natural label-friendly ingredients. This session highlights recent research on the identification, characterization and utilization of novel surfactants suitable for the food industry. Further, it highlights these surfactants’ functional properties and structural features for their unique applications in food.

**Session Chair:** Pulali Krishnankutty Nair, Sr. Product Developer, Danone North America, USA
USA and Kaustuv Bhattacharya, Principal Application Specialist, Oils & Fats, IFF, Denmark

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**General Edible Applications Technology**

Papers that go beyond the topic-specific sessions or cover new areas of research in food materials and food technology.

**Edible Applications Technology Poster Session**

This poster session is dedicated to up-to-date, high-quality research relevant to edible applications technology.

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**HEALTH AND NUTRITION**

Program organizer: Matt Miller, Cawthron Institute, New Zealand

**Bioactive Lipid Mediators**

Research on the actions of bioactive lipid mediators and how these link with nutritional availability of the precursor lipids.

**Session Chairs:** Philip C. Calder, Professor of Nutritional Immunology, Head Human Development & Health, University of Southampton, UK and Gerard Bannenberg, Director of Technical Compliance and Outreach, GOED Omega-3, USA

**Inflammation and Fatty Acids; Role of Inflammation in Disease Pathology**

New and relevant research on the relationship between fatty acids and inflammatory processes in diseases such as rheumatoid arthritis, cardiovascular diseases and cancer.

**Session Chairs:** Gustavo Ruiz-Pulido, PhD Student, Tecnologico De Monterrey, Mexico and Kaustav Majumder, Assistant Professor, University of Nebraska-Lincoln, USA

**Lipid and Protein Nutrition in Elderly Health**

*Joint session with Protein and Co-Products Division*

High-quality research relevant to lipid and protein nutrition in elderly health considering all aspects of experimental nutrition, physiology and biochemistry to identify long-lasting solutions to chronic diseases/conditions and malnutrition.

**Session Chairs:** Muhammad Elsorady, Professor, Food Technology Research Institute, Agricultural Research Center, Egypt and Jeanette Mary Andrade, Assistant Professor, University of Florida, USA

**Role of Lipids and Related Nutrients in Companion Animal Health**

The latest research information on the important role of lipids and related nutrients in maintaining health and increasing longevity of companion animals.

**Session Chairs:** Elaine Krul, President, EKSci, LLC, USA and Christine Rogers, Research Scientist, Mississippi State Chemical Lab, USA
**Omega-3s: How Much Do We Currently Know About Omega-3 Fatty Acids?**
High-quality research on Eicosapentaenoic (EPA) and docosahexaenoic (DHA) acids, the two main omega-3 long-chain polyunsaturated fatty acids used for the prevention of cardiovascular diseases (CVDs) outcomes, with specific focus on new studies, data and questions about the effectiveness of omega-3 supplements.

**Session Chairs:** Ignacio Vieitez, Professor, Universidad de la República, Uruguay and Rinat Rivka Ran-Ressler, PhD, Principal Scientist, Nestle Health Science, USA

**Lipids and the Microbiome**
Academic and industry-based research in nutrition, food science and biochemistry that uncovers unexplored territory and innovative methods to detect the impact nutrients, especially lipids, have on the microbiome.

**Session Chairs:** Jeanette Mary Andrade, Assistant Professor, University of Florida, USA and Melissa Perez Santana, Master of Science in Food Science and Human Nutrition, Research Associate, Impossible Foods, USA

**Lipid Oxidation Consequences to Health, Nutrition and Toxicity**
*Joint session with Lipid Oxidation and Quality Division*
Research on deleterious aspects of lipid oxidation that go beyond rancid odors and flavors, including co-oxidation of food nutrients, decrease in essential fatty acids, impairment of nutrient absorption, interference with the microbiome and function of the gastrointestinal tract, and formation of toxic materials.

**Session Chairs:** Karen Schaich, Associate Professor, Rutgers University, USA; Jon Alberdi-Cedeno, Postdoctoral Researcher, University of Vienna / University of the Basque Country (UPV/EHU), Spain; and Muhammad Elsorady, Professor, Food Technology Research Institute, Agricultural Research Center, Egypt

**General Health and Nutrition**
Up-to-date, high-quality research relevant to the broad field of lipid metabolism, biochemistry and physiology related to all aspects of dietary fats and health. Studies of interest cover all aspects of experimental nutrition, physiology and biochemistry in humans and animals, as well as in vitro and in silico studies unveiling the mechanisms of lipid physiology in human health.

**Session Chairs:** Matthew Picklo, Research Leader, USDA-ARS, USA; Ambria Crusan, Assistant Professor, St. Catherine University, USA; Doug Bibus, President, Lipid Technologies, LLC, USA; and Rotimi Aluko, PhD, Professor, University of Manitoba, Canada

**Health and Nutrition Poster Session**
This poster session is dedicated to up-to-date, high-quality research relevant to the broad field of lipid metabolism and health.

**Session Chairs:** Hongbing Fan, Postdoctoral Fellow, University of Alberta, Canada and Fang Xia, Manager, Analytical Services, Pharmavite LLC, USA

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**INDUSTRIAL OIL PRODUCTS**
Program organizer: Brajendra (BK) Sharma, USDA-ARS, EERC, USA

**Green Chemistry and Oleochemicals**
Processes and novel green chemistry concepts for chemical modifications of fats and oils to create innovative value-added, sustainable, or renewable products including novel
chemical/biological synthesis, replacement/reduction of environmentally harsh reagents or wastes, or the use of new feedstocks that promote sustainability.

**Session Chairs:** Helen Ngo, Research Chemist/Lead Scientist, USDA ARS ERRC, USA and Majher Sarker, Research Chemist, ARS/USDA, USA

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**Biofuels**

*Joint session with Processing Division*

Recent advances in biofuels production including, but not limited to, biomass pre-treatment, enzymatic and catalytic processing, thermochemistry, carbon footprint analysis, chemical structure-property relationships and fuel properties.

**Session Chair:** Bruce Patsey, Vice President and General Manager, Oil-Dri, Corp., USA and Robert O. Dunn, Jr., Research Chemical Engineer, USDA ARS NCAUR, USA

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**Biopolymers**

*Joint session with Biotechnology Division*

Synthesis, characterization and production of polymers derived from renewable and/or lipid-based precursors that match, if not improve, the properties demonstrated by petroleum-based materials, making these biopolymers appealing in widespread applications.

**Session Chairs:** Eric Cochran, Professor, Iowa State University, USA and Rick Ashby, Research Microbiologist/Lead Scientist, USDA/ARS/ERRC, USA

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**New Uses of Glycerine**

Progress in the value-added processing and valorization of glycerin including chemical, biochemical, thermochemical, and catalytic upgrading of purified and raw glycerin. Papers dealing with economical, LCA, and process design of glycerin upgrading technologies are also welcome.

**Session Chairs:** Franck Dumeignil, Professor, University of Lille, France and Dharma Kodali, Professor, University of Minnesota, USA

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**New Crops for Oils/ Feedstock Engineering**

*Joint session with Biotechnology Division*

Research and development of new-generation oils, including development of new oilseed crops, with different properties, and crops that can be grown during the off-season or in areas not suitable for traditional commodity crops.

**Session Chairs:** Roque Evangelista, Research Chemist, USDA ARS NCAUR, USA and Mahesh Khot, Senior Scientist, Farmsow Pvt. Ltd., India, North America

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**General Industrial Oil Products**

Papers that go beyond the topic-specific sessions or cover new areas of research in industrial oil products.

**Session Chairs:** Darrell Sparks, Associate Professor, Mississippi State University, USA and B.K. Sharma, Research Chemist, USDA-ARS, ERRC, USA

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**Industrial Oil Products Poster Session**

This poster session is dedicated to up-to-date, high-quality research relevant to biofuels, biopolymers, oleochemicals, green chemistry, glycerine utilization, new crops for oils, and other new applications from oil-derived products.

**Session Chair:** Jerry King, CEO, CFS, R&D Consulting, USA
LIPID OXIDATION AND QUALITY
Program organizer: David Johnson, Kalsec, USA

Antioxidant Applications: Emulsions, Biofuels, Proteins and More
The implementation of antioxidants in novel applications and the various factors contributing to their efficacy in a broad range of food and non-food systems.
Session Chairs: Claire Berton-Carabin, Wageningen University and Research, Netherlands and Drew Elder, Senior Scientist- Food Protection, Kalsec Inc., USA

Evaluating Antioxidant Efficacy via Accelerated Storage for Shelf-life Determination
Conflicts and inconsistencies between shelf-life determinations using accelerated storage methods at elevated temperatures, and results reflecting the chemistry that occurs over long times at room temperature. Appropriate uses of current methods and alternative approaches.

Food Preservation Strategies: Combination of Antioxidants with Other Actives in Food Systems
The combination of antioxidants and other active components, such as antimicrobials, to extend the quality of foods and overcome the shelf-life challenges resulting from the move away from synthetic preservatives.
Session Chairs: Marie Hennebelle, Assistant Professor, Wageningen University, Netherlands and Liyun Ye, Senior Scientist, Finless Foods, Inc., USA

Identification of Novel Antioxidants and their Efficacies
The identification and application testing of novel antioxidant substances from previously unidentified sources, or from functionalization of current ingredients, to meet the higher performance expectations of clean-label products.
Session Chairs: Ignacio Vieitez, Professor, Universidad de la República, Uruguay and Ruchira Nandasiri, Postdoctoral Scholar, University of Manitoba, Canada

Lipid Oxidation Consequences to Health, Nutrition and Toxicity
Joint session with Health and Nutrition Division
Research on deleterious aspects of lipid oxidation including co-oxidation of food nutrients, decrease in essential fatty acids, impairment of nutrient absorption, interference with the microbiome and function of the gastrointestinal tract and formation of toxic materials.
Session Chairs: Karen Schaich, Associate Professor, Rutgers University, USA; Jon Alberdi-Cedeno, Postdoctoral Researcher, University of Vienna / University of the Basque Country (UPV/EHU), Spain; and Muhammad Elsorady, Professor, Food Technology Research Institute, Agricultural Research Center, Egypt

Lipid Oxidation in Omega-3 Products and Stabilization Strategies
Strategies that can inhibit oxidation in matrices high in omega-3 fatty acids, increase bioavailability and acceptability of omega-3 fatty acids, and deliver higher quality products.
Session Chairs: Namal Senanayake, Scientific Manager, CFS North America, LLC, USA and Haizhou Wu, Researcher, Chalmers University of Technology, Sweden

Novel Analytical Tools to Assess Oil Quality and Oxidation
Joint session with Analytical Division
Novel approaches for analyzing more oxidation products in greater detail and with greater sensitivity, including analysis of individual non-volatile products, lipidomic approaches to tracking product distributions and methods for tracking co-oxidation reactions that remove lipid oxidation products.

**Session Chairs:** Matthew Fhaner, Chair and Associate Professor of Chemistry, University of Michigan-Flint, USA; Rick Della Porta, Senior Principal Scientist/Analytical Oils SME, Pepsico/Frito-Lay, USA; and Fernanda Furlan Goncalves Dias, Postdoctoral Researcher, University of California, Davis, USA

**Lipid Oxidation and Quality General Session**

Papers that go beyond the topic-specific sessions or cover new areas of research in lipid oxidation and quality.

**Session Chairs:** Hong-Sik Hwang, Research Chemist, USDA ARS NCAUR, USA and Sumudu Warnakulasuriya, PhD Candidate, University of Saskatchewan, Canada

**Lipid Oxidation and Quality Poster Session**

This poster session is dedicated to up-to-date, high-quality research relevant to lipid oxidation and quality.

**PHOSPHOLIPID**

Program organizer: Ozan Ciftci, University of Nebraska-Lincoln, USA

**Novel Phospholipids- Synthesis, Plant Polar Lipids, their Chemical Composition and Biomedical Properties**

New research finding on the synthesis, chemical composition, and biomedical properties of novel phospholipids.

**Development of Novel Phospholipids and Phospholipid-based Delivery Systems for Pharmaceutical and Food Applications**

Development of phospholipids as natural emulsifiers and antioxidants, their role in new pharmaceutical products and in drug and gene delivery systems. The development of new phospholipids with bioactive properties and the use of membrane phospholipids in specialized nutrition.

**Session Chairs:** Ernesto Hernandez, Principal Consultant, Advanced Lipids, USA and Shawn Wettig, Professor, University of Waterloo, Canada

**Phospholipid Analysis**

*Joint session with Analytical Division*

Improvements in current analytical methods and the development of novel approaches to meet the challenge of comprehensive analysis of phospholipids and provide insights into agriculture, nutrition, biological chemistry and medical science.

**Session Chairs:** Michael Bukowski, Chemist, USDA-ARS, USA and Francesca Giufrida, Team Leader, Nestle Research Center, Switzerland

**Engineering and Technological Aspects of Isolation, Purification, and Processing of Phospholipids**

Recent advances in processing techniques for phospholipids, including solvent extraction and precipitation processes, supercritical fluid processing, membrane processing and chemical
derivatization to produce fractions enriched in phospholipids with functional and bioactive properties. Presentations on enzymatic processes with phospholipases and lipases including esterification reactions with other bioactive polar compounds.

**Phospholipid Poster Session**
This poster session is dedicated to up-to-date, high-quality research relevant to phospholipids.

**PROCESSING**
Program organizer: Alan Paine, Consultant, UK

**How Processing Affects Emerging Economies (Sustainability Session)**
Practices and challenges of agricultural processing based in rapidly developing, emerging markets, including areas with high levels of malnutrition that need nutrient dense foods supplied in an economical and sustainable way.

**Session Chairs:** Annette Donnelly, Visiting Research Specialist, Soybean Innovation Lab, USA and Juan Andrade, Associate Professor, University of Florida, USA

**Processing Basics — Palm Oil**
General processing topics on oilseeds processing and on technical information that will help those interested to learn about plant operation and practices.

**Session Chairs:** Alan Paine, Consultant, UK and Leon Pablo Espinosa, Director of Sales, Desmet Ballestra North America Inc, USA

**New and Emerging Technology**
New and recent technologies and innovations relevant to both plant operators and academia with topics covering the entire oil processing-chain.

**Session Chair:** Fernanda Furlan Goncalves Dias, Postdoctoral Researcher, University of California, Davis, USA; and Orayne Mullings, Technical Sales Engineer, Desmet Ballestra, USA

**Fermentation**
*Joint session with Biotechnology Division*
Research and developments at the interface of biotechnology and process engineering that are transforming our industry including trait selection and engineering of microbes for expression, distribution and yield of high-value products. New techniques enabling precise control and monitoring of fermentation conditions.

**Session Chairs:** Tsunehiro Aki, Professor, Hiroshima University, Japan and Mahesh Khot, Senior Scientist, Farmsow Pvt.Ltd., India, North America

**Edible Oil Contaminants — Analysis and Industrial Perspective**
*Joint session with Analytical Division*
Research and innovation highlighting the role of edible oil processing techniques in the mitigation and formation food contaminants as well as analytical and other solutions for monitoring and improving the quality of intermediate and finished products

**Session Chairs:** Jan Kuhlmann, Teamleader Chromatography, SGS Germany GmbH, Germany and Wim De Greyt, Senior R&D Manager, Desmet Ballestra Group, Belgium

**Novel Technologies — Plant-based Foods**
Novel technologies and processes for plant-based foods including processes that enhance
stability without the use of additives, enhance flavor profiles and deliver plant proteins of superior functionality.

**Session Chairs:** Pulari Krishnankutty Nair, Sr. Product Developer, Danone North America, USA and Anil Kommineni, Sr. Research & Innovation Manager, Danone, USA

**Food Safety and Security**
Current and new practices applied to seed conditioning, seed preparation, extraction, degumming, physical refining, alkali refining, bleaching, short-path evaporation, deodorization, interesterification, fractionation and fractional distillation. Research on contaminants such as heavy metals, pesticides, PCBs, dioxins or PAHs, and process contaminants such as 3-MCPD- and glycidol esters, mineral oil hydrocarbons, and phthalates relevant to current process practices, mitigation strategies and regulatory aspects.

**Session Chairs:** Matthew Williamson, Director of Engineering, ADF Engineering, USA and Richard Clough, Customer Relationship Manager, Texas A&M Engineering Experiment Station, USA

**Control, Instrumentation and Machine Learning**
Industry 4.0 concepts in processing. Example and applications of on-line and in-line measurements across the different industrial unit operations that can be brought together for next generation, closed loop control of fat, oil and grease processing.

**Session Chairs:** Jonathon Speed, Product and Applications Manager, Keit Spectrometers, UK and William Younggreen, Manager, USA and Canada, Edible Oil Systems, Alfa Laval Inc., USA

**Hemp/Cannabis Processing**
Holistic approaches to processing cannabis- and hemp-derived products, including medicinal active extracts, hemp seed oil and protein isolates, as well as chemical and energy applications of cannabis/hemp biomass. Innovation in extraction and purification technologies, removal of contaminants and end uses of processed products. New information on regulatory control of the manufacturing processes and products.

**Session Chairs:** Mike Martinez, CEO, Natural Plant Products Inc, USA and Rich Barton, President, N Hunt Moore & Associates, USA

**Biofuels**
*Joint session with Industrial Oil Products Division*
Recent advances in biofuels production including, but not limited to, biomass pre-treatment, enzymatic and catalytic processing, thermochemistry, carbon footprint analysis, chemical structure-property relationships and fuel properties.

**Session Chair:** Bruce Patsey, Vice President and General Manager, Oil-Dri, Corp., USA and Robert O. Dunn, Jr., PhD, Research Chemical Engineer, USDA ARS NCAUR, USA

**General Processing (Energy, Sustainability, Future)**
Papers that go beyond the topic-specific sessions or cover new areas of processing science and technology.

**Session Chairs:** Darren Litle, Director of Sales, Arisdyne Systems Inc, USA and Ruchira Nandasiri, Postdoctoral Scholar, University of Manitoba, Canada

**Processing Poster Session**
This poster session is dedicated to up-to-date, high-quality research and development relevant to processing.
PROTEIN AND CO-PRODUCTS
Program organizer: Lingyun Chen, University of Alberta, Canada

Application of Advanced Green Processing for the Preparation and Utilization of Food Proteins
Sustainable and clean technologies for protein extraction and their effect on performance properties such as solubility, dispersibility and texturization. Innovations in green technologies, reduced processing, and clean labelling.

Session Chairs: Lamia L'Hocine, Research Scientist, Agriculture and Agri-Food Canada, Canada; Mehmet C. Tulbek, Director, AGT Foods Research & Development Centre, Canada; and Md Mahfuzur Rahman, Senior Scientist- R&D, Technology Discovery & Development, Kraft Heinz Food Company, USA

Standardize/Novel Analytical Methods for Protein Analysis in Food
Joint session with Analytical Division
Research, innovation and standardization for analytical methods to determine nutritional and techno-functional properties of food proteins, especially from emerging protein sources.

Session Chairs: Sneh Bhandari, Independent Consultant, USA; Janitha Wanasundara, Research Scientist, Agriculture and Agri-Food Canada, Canada; and Frederic Baudouin, Project Manager, Improve SAS, France

Breeding and Biotechnology for Improved Quality of Food Proteins
Research on improving the yield, nutritional quality, flavor and functionality of plant-based proteins by conventional breeding and advanced biotechnological tools to meet new opportunities in the food industry.

Session Chairs: Phil S. Kerr, Chief Technology Officer, Prairie AquaTech, LLC, USA and Long (Joe) Zou, Senior Project Leader, Bunge North America, USA

Emerging Source of Proteins
Opportunities and challenges associated with emerging protein sources, such as novel plant proteins, insect proteins, cell proteins and algae proteins, particularly in regard to their nutritional, bioactive and techno-functional properties, safety and allergenicity.

Session Chairs: James House, Professor, University of Manitoba, Canada; Rotimi Aluko, Professor, University of Manitoba, Canada; and Janelle R Courcelles, Director, Quality & Processing, Pulse Canada, Canada

Functionality of Proteins in Foods and Interactions with Other Food Components
New insights into protein and peptide structures, textures, functionality, bioactivity and bioavailability in foods, including interactions with other food components such as polysaccharides, lipids, and phytochemicals.

Session Chairs: Jiajia Rao, Assistant Professor, North Dakota State University, USA; Chibuike Udenigwe, Professor and University Research Chair, University of Ottawa, Canada; and Yifu Chu, PhD Student, University of Alberta, Canada

Improving Protein Quality/Content
Joint session with Biotechnology Division
Lipid and Protein Nutrition in Elderly Health  
*Joint session with Health and Nutrition Division*  
High-quality research relevant to lipid and protein nutrition in elderly health considering all aspects of experimental nutrition, physiology and biochemistry to identify long-lasting solutions to chronic diseases/conditions and malnutrition.  
**Session Chairs:** Muhammad Elsorady, Professor, Food Technology Research Institute, Agricultural Research Center, Egypt and Jeanette Mary Andrade, Assistant Professor, University of Florida, USA

Non-food Applications of Proteins  
*Joint session with Biotechnology Division*  
Current research on the use of proteins of different origins in non-food applications including but not limited to pet foods, aquafeed, animal feed and in industrial polymeric applications.  
**Session Chairs:** Nandika Bandara, Assistant Professor and Canada Research Chair, University of Manitoba, Canada; Yixiang Wang, Assistant Professor, McGill University, Canada; and Bishnu Karki, Assistant Professor, South Dakota State University, USA

Novel Edible Application of Food Proteins  
*Joint session with Edible Applications Technology Division*  
Opportunities and challenges associated with emerging edible applications of plant proteins including novel plant-based meat and dairy alternatives.  
**Session chairs:** Pulari Krishnankutty Nair, Sr. Product Developer, Danone North America, USA and Serpil Metin, Principal Product Developer, Cargill, USA

Protein Based Hydrocolloids for Food and Health Applications  
Development of novel protein-based hydrocolloids for improved food stability, texture and nutritive value. Their applications to create novel active delivery systems and healthy food products.  
**Session Chair:** Lingyun Chen, Full Professor, University of Alberta, Canada and Navam S. Hettiarachchy, PhD, University Professor, University of Arkansas-Fayetteville, USA

Protein Biofunctions  
Insights into mechanisms and biological activities of proteins and derived peptides beyond their known nutritional value including allergenic, bioactive, antibacterial and antiviral functions.  
**Session Chairs:** Kaustav Majumder, Assistant Professor, University of Nebraska-Lincoln, USA; Hitomi Kumagai, Professor, Nihon University, Japan; and Hongbing Fan, Postdoctoral Fellow, University of Alberta, Canada

Graduate Student Oral Competition  
Presentations by finalists of the Graduate Student Oral Competition. To participate in this competition, individuals who are full-time students enrolled in a graduate or doctoral degree program at both submission and presentation may submit an abstract based on work recently performed that is relevant to protein and co-products.  
**Session Chairs:** Lamia L'Hocine, Research Scientist, Agriculture and Agri-Food Canada, Canada and Milagros P. Hojilla-Evangelista, PhD, Research Chemist, USDA ARS NCAUR Plant Polymer Research Unit, USA

Protein and Co-Products Poster Session
This poster session is dedicated to up-to-date, high-quality research relevant to the broad field of protein and co-products. Studies of interest cover but are not limited to protein processing, structure and function, nutritive quality, protein analysis, emerging sources of protein and novel applications in food, feed, biomaterials and other areas.

**Session Chairs:** Keshun Liu, Research Chemist, U.S. Department of Agriculture, USA and Pankaj Bhowmik, Research Officer and Scientific Support Lead, Sustainable Protein Production program, National Research Council of Canada, Canada

**SURFACANTS AND DETERGENTS**
Program organizer: Sanja Natali, Customer Application Development, ExxonMobil Chemical, USA

**Biosurfactants (LCA/Sustainability)**
*Joint session with Biotechnology Division*
Development, formulation and applications of surfactants of microbial origin in commercial products, including personal and home care products, cosmetics, pharmaceuticals and environmental applications.

**Session Chairs:** Phillip Vinson, Research Fellow, The Procter & Gamble Company, USA; George Smith, Research Associate, Sasol, USA; and Doug Hayes, Professor, University of Tennessee, USA

**Formulating Waterless Products**
**Session Chairs:** Adriana Sanchez, R&D Director, Sanchez y Martin SA de CV, Mexico and Viktor Dubovoy, Research Scientist, Colgate Palmolive, USA

**HLD-NAC**
Presentations on the hydrophilic lipophilic deviation (HLD) and the net-average curvature (NAC) models and their application in a wide range of fields, including, oilfield chemistry, agrochemical, cleaning, detergents, cosmetics and pharmaceutical formulations.

**Session Chairs:** Sanja Natali, Customer Application Development, ExxonMobil Chemical, USA and Juliana Caixeta Guimaraes, Researcher, Oxiteno, Brazil

**Surface Methods**
*Joint session with Analytical Division*
Research using surface techniques such as ellipsometry, QCM-D, and AFM to understand how ingredients, products and formulations work at and with various substrates, and how those learnings can be used to make better decisions in product development.

**Session Chair:** Rick Theiner, Technical Applications Development Manager, Evonik Industries, USA

**Next Generation Ingredients**
Next generation consumer product ingredients that yield better performance, are more sustainable and are safer to handle. Consumer driven ingredient innovations that will play a key role in future manufacturing processes, product formulations, delivery mechanisms and product forms.

*Normal restrictions on the use of product trade names and logos are suspended, so that presenters can freely discuss commercial aspects and opportunities of their products.

**Session Chairs:** Scott Backer, Research Scientist, Home and Personal Care, Dow Chemical Co., USA and Amir Ghayour, Formulation and Application Technology Lead, Syngenta, Canada
Performance Additives
Research on the role of functional additives to create higher performing detergents and cleaners across different categories.

Session Chairs: Robert Nolles, Director M&S, Cosun Biobased Experts, USA and David Stott, Manager, Research and Development, Mary Kay, Inc., USA

Personal Care
Presentations that describe novel products providing mild conditioning or cleansing of either hair or skin. Natural and biodegradable materials are preferred. Sessions will be anchored by keynote speakers who will highlight opportunities and needs for consumer acceptable formulations.

Session Chairs: Hongwei Shen, Technical Manager, Colgate-Palmolive Company, USA and Tony O’Lenick, Principal Consultant, Nascent Technologies Corporation, USA

Regulatory Issues
Insights and advice on responses to demands for increased transparency in raw material sourcing and product labeling created by changes to the Toxic Substances Control Act (TSCA) in the United States; the European Union's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH); regulation on non-animal safety testing and consumers' social network influences.

Session Chairs: Yvon Durant, Chief Technology Officer, Itaconix Corporation, USA and Jennifer Foreman, Regulatory Affairs Advisor, ExxonMobil Chemical Company, USA

Surfactants for Petroleum Applications
Session Chair: Daniel Miller, Research Scientist, Dow Inc., USA and Dorianne A. Castillo, PhD, RDD Senior Chemist- Innovation & Technology, Drilling & Completion Fluids, Oilfield Services, Baker Hughes, USA

Interactions of Surfactants at Solid Surfaces
Session Chairs: Brian Grady, Professor, University of Oklahoma, USA and Geoffrey Pasciak, Chemist III, Evonik Corporation, USA

Surfactant LCA/Sustainability
Session Chairs: Julian Barnes, Principal Science Expert, Shell Global Solutions International B.V., Netherlands and Kathleen Stanton, Associate Vice President, American Cleaning Institute, USA

Surfactants in Food
Joint session with Edible Applications Technology Division
Session Chair: Pulari Krishnankutty Nair, Sr. Product Developer, Danone North America, USA

Surfactants Mixtures and Trace Components
Research on the physicochemical behavior of complex surfactant mixtures including residual surfactants and other trace components and its relationship with formulation properties. Methods to analyze these complex mixtures and quantify trace components. Strategies to minimize residual surfactants and chemicals.

Session Chairs: Sukhwan Soontrovanich, Staff Scientist, Ecolab, USA and Ronald Marquez, Postdoctoral Research Scholar, North Carolina State University, USA
**JSD Anniversary Session**
To celebrate the 25th anniversary of the *Journal of Surfactants and Detergents (JSD)*, the journal is sponsoring a special session consisting of invited papers presented by members of the JSD editorial board.

**Surfactants and Detergents Poster Session**
This poster session is dedicated to up-to-date, high-quality research relevant to surfactants and detergents.

**Session Chair:** Julian Barnes, Principal Science Expert, Shell Global Solutions Internations B.V., Netherlands

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**Contact Information**
If you have questions about the abstract submission process, please contact Lauren Rohde, Manager, AOCS Education and Meeting Programs at +1 217-693-4831 or lauren.rohde@aocs.org.

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