



CORNUCOPIA

including the AGFD program for the
259th American Chemical Society National Meeting in

PHILADELPHIA

March 22 - 26, 2020

LIANGLI (LUCY) YU & YOUNGMOK KIM
Program Chairs

**Attend AGFD Technical Sessions in the
Philadelphia Convention Center**

Experience

**Communicating Culinary Chemistry Competition: Colloids
at Drexel University. See ACS Nat'l Mtg website for tickets
and page 5 of this Cornucopia for more info.**

**Join the AGFD Annual Reception
Tuesday Mar. 24, 6pm at
The Study
University City**

(directions below)

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Directions to AGFD Annual Reception — from Convention Center proceed right (west) on Arch St (with traffic). At 15th St. turn left (south) to Market St*. Turn right (west), taking Market St. over the Schuylkill River. At 33rd St. turn left (south). Continue 1.5 blocks to #20 South 33rd. The Study is on your right (2nd floor) *or take the Market-Frankford (Blue) line west (towards 69th St) from 15th&Market 2 stops to 34th&Market (1.7 miles/35 minute walk from the Convention Center)

Visit our website - www.agfdchem.org - for a pdf of Cornucopia, job postings, awards, and much more.
Check out our Facebook page - www.facebook.com/agandfood We're on LinkedIn, too!

MESSAGE FROM THE CHAIR

The Spring ACS national Meeting is coming and the abstract submission for the fall national meeting in San Francisco has opened. AGFD members have continued to enhance the quality of life through advocating for safe, nutritious and sustainable food and agricultural systems. I am honored to have the opportunity to serve you as the AGFD 2020 Chair.

First, I thank all symposium organizers, presiders and presenters for your wonderful contributions to the AGFD technical program at the 258th ACS fall 2019 national meeting in San Diego. AGFD had more than 400 abstract submissions, 44 oral sessions for 19 symposiums and 100 poster presentations at the San Diego meeting. The technical program covered broad topics including food components such as phenolics and trace metals, utilization of agricultural materials, diet and health, novel food packaging, nanotechnology and food safety. A special symposium honored Dr. Agnes Rimando, an outstanding agricultural and food chemist and a wonderful international ambassador of agricultural and food chemistry. In addition, the AGFD International Student Symposium, re-named as the Agnes Rimando Memorial International Student Symposium to honor Dr. Rimando, had 16 international student presentations at the San Diego meeting. As a tradition, AGFD celebrated members' achievements at the San Diego ACS National Meeting. An AGFD Award symposium honored Dr. Fidel Toldrá with the 2019 Advancement of Application of Agricultural and Food Chemistry Award. The 2019 USDA-ARS Sterling B. Hendricks Lectureship Award celebrated Dr. John W. Finley, an AGFD Councilor and long time division member, for his outstanding achievement in agricultural and food chemistry. He delivered a presentation entitled 'Evolution and Future Needs for Food Chemistry in a Changing World'. Dr. Ranjith Ramanathan in the Department of Animal and Food Sciences at Oklahoma State University won the 2019 AGFD Young Scientist Award. Drs. Michael Hellwig and Thomas Henle won the 2019 *Journal of Agricultural and Food Chemistry* Research Article of the Year Award and presented their research on microbial metabolization of glycated amino acids at the San Diego ACS meeting. AGFD hosted its Awards Banquet at the Harbor House with a wonderful ocean view. Drs. Bosoon Park, Xuotong Fan, Michael Granvogl, Luke R. Howard and Yan Xu received their 2019 AGFD Fellow Awards at the AGFD Awards Banquet. Dr. Michael Qian celebrated his 2019 ACS Fellow Award, as well as his 25 Year AGFD Service Award along with other 23 division long time members. Congratulations to all 2019 award winners!

I thank Dr. Michael Qian (AGFD membership Chair) and colleagues who contributed to the recruitment of the new and the retention of current AGFD members. At the AGFD business meeting in San Diego, division leaders discussed possible efforts to further recruit and engage industrial members, such as creating new AGFD award categories to recognize our industrial members for their contribution in advancing agricultural and food chemistry, as well as their contributions to AGFD. AGFD would like to hear your wonderful ideas and suggestions on engaging and developing memberships. I also encourage all AGFD members to recruit 1-3 new members in 2020. In addition, I encourage you to organize symposia at ACS national meetings and consider leading AGFD sub-divisions when you can.

AGFD continues to provide excellent technical programs at ACS national meetings. For the Philadelphia ACS meeting theme Macromolecular Chemistry: the 2nd Century, we received more than 300 abstracts and have about 190 presentations in 27 oral sessions and more than 110 posters. Ten symposia cover topics on pectin and food packaging, food sensory, fermented foods, gut microbiota, food for human health, nanotechnology, food authentication and detection techniques, etc. At the Withycombe-Charalambous Graduate Student Symposium, held in room 102B in the Pennsylvania Convention Center in the afternoon on Sunday (March 22, 2020), six finalists will present their graduate research findings. The AGFD Undergraduate Student Poster Competition takes place along with the Division poster session at 5:30-7:30 pm Sunday in the Exhibition Hall D of the Convention Center. The Division reception held at the poster session provides an excellent opportunity to meet and discuss research and other career development opportunities with other presenters and AGFD members. The reception is also an excellent opportunity to meet AGFD leaders. I encourage you to attend both oral and poster sessions, as well as Sci-Mix 8:00-10:00 pm Monday (March 23) in the Exhibition Hall A. AGFD will have its Annual Division Reception 6:00-8:00 pm on Tuesday (March 24) – see the cover of this CORNUCOPIA for details. The Annual Reception is open to AGFD members and is free of charge. Bring potential AGFD members and friends with you. The winners of the Withycombe-Charalambous Graduate Student Symposium and the AGFD Undergraduate Student Poster Competition will be recognized at the Chair's reception. The Winner of the Teranishi Graduate Fellowship in Food Chemistry will be celebrated, too.

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I thank co-program Chair Youngmok Kim for his assistance in developing the technical program for the Philadelphia ACS meeting. I also thank Xuetong Fan, Brian Guthrie, Michael Morello and Michael Appell for their support and advice whenever needed. Youngmok and I thank Alyson Mitchell for delivering monthly AGFD member News Letters, Michael Tunick for arranging the AGFD Annual Reception in Philadelphia, Carl Frey for producing this Cornucopia, Alyson Mitchell and Stephen Toth III for submitting division annual reports, all executive committee members, award committees, symposium organizers and presenters of the Philadelphia meeting, and you. I believe that we can move AGFD forward as a team.

Liangli (Lucy) Yu AGFD Chair 2020

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FUTURE PROGRAMS

SAN FRANCISCO August 16-20, 2020

ACS Meeting Theme: Moving Chemistry from Bench to Market

AGFD Award Symposium Liangli (Lucy) Yu lyu5@umd.edu Michael Appell Michael.appell@gmail.com

AGFD Young Scientist Award Michael Granvogl michael.granvogl@uni-hohenheim.de

Alternatives to Antibiotic Use Xiaohua He xiaohua.he@ars.usda.gov Luisa W. Cheng luisa.cheng@usda.gov

Sensor, Biosensor and Artificial Intelligence Advances in Food and Agricultural Chemistry Michael Appell Michael.appell@gmail.com Brian Guthrie Brian_Guthrie@cargill.com Jonathan Beauchamp jonathan.beauchamp@ivv.fraunhofer.de Andrea Buettner andrea.buettner@ivv.fraunhofer.de

Chemistry of Traditional Chinese Medicine Wallace Yokoyama yokoyama@ars.usda.gov Xianli Wu xianli.wu@ars.usda.gov Jinlin Guo guo596@163.com Yue Zhang yue.zhang@unl.edu

Chemistry of Wine: Flavor, Quality and Analysis Tony Shao, Tony.Shao@pepsico.com Andrew Waterhouse alwaterhouse@ucdavis.edu GK Jayaprakasha gkjp@tamu.edu Yu Wang yu.wang@ufl.edu Michael Granvogl michael.granvogl@uni-hohenheim.de

Chemistry, Safety and Sustainability of Nuts and Nut Products Alyson Mitchell aemitchell@ucdavis.edu

Food Allergens: Discovery, Characterization, Detection, and Mitigation Yuzhu Zhang yuzhu.zhang@ars.usda.gov Lauren Jackson Lauren.Jackson@fda.hhs.gov

Food Macromolecules: Functionality, Health Benefits, Delivery Systems Wallace Yokoyama yokoyama@ars.usda.gov Fang Zhong fzhong@jiangnan.edu.cn Nitin Nitin nnitin@ucdavis.edu

JAFC Research Article of the Year Award Symposium Thomas Hofmann Thomas.hofmann@tum.de

Micro(nano)plastics: Potential Hazards for Agriculture and the Environment Bosoon Park bosoon.park@usda.gov Kyoung Ro kyoung.ro@usda.gov

Oat Bioactives and Their Health Effects Shengmin Sang ssang@ncat.edu YiFang Chu yifang.chu@pepsico.com

Omics-based Natural Product Discovery Hyang-Sook Chun hschun@cau.ac.kr Kwang-Geun Lee kwglee@dongguk.edu

Processing and Storage Induced Food Toxicants (3-MCPD esters, 2-MCPD esters, trans fat, acrylamide, heterocyclic amines, polycyclic aromatic hydrocarbons et al.) Liangli (Lucy) Yu lyu5@umd.edu Michael Granvogl michael.granvogl@uni-hohenheim.de Shaun MacMahon Shaun.MacMahon@fda.hhs.gov Fang Chen chenfangch@sina.com

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Smart Textile and Cellulosic Products from Chemistry SeChin Chang SeChin.Chang@ars.usda.gov Sunghyun Nam sunghyun.Nam@usda.gov

Chemistry of Chocolate: From Bench to Market Susan Ebeler seebeler@ucdavis.edu Helene Hopfer hxx83@psu.edu Josh Lambert jdl134@psu.edu Brian Guthrie Brian_Guthrie@cargill.com

New Insights in Gut Microbiota Health Benefits Coralia Osorio Roa cosorior@unal.edu.co

Breath Monitoring for Food Consumption, Drug Intake, Health and Wellbeing Jonathan Beauchamp jonathan.beauchamp@ivv.fraunhofer.de Christina Davis cedavis@ucdavis.edu

Improving Safety and Quality of Fresh Produce Xuetong Fan Xuetong.fan@ars.usda.gov Vivian Wu Vivian.Wu@usda.gov Kunsong Chen akun@zju.edu.cn

Advancements in Food and Metabolomics Jessica Cooperstone cooperstone.1@osu.edu Devin Peterson Peterson.892@osu.edu

Updates in Endocrine Disrupting Chemicals and Safety Assessment for Food Contact Materials Changqing Wu changwu@udel.edu

Sterling B. Hendricks Memorial Lectureship Symposium Michael Appell Michael.Appell@ars.usda.gov Bosoon Park bosoon.park@usda.gov

Advancement in the Detection of Food Chemical and Microbiological Hazards Xiaonan Lu Xiaonan.lu@ubc.ca Alyson Mitchell aemitchell@ucdavis.edu Lili He lilihe@foodsci.umass.edu Juhong Chen jhchen@vt.edu.

Modification of Agricultural Biomass into Value Added Products Majher Sarker Majher.Sarker@usda.gov Hailemichael O. Yosief Hailemichael.Yosief@usda.gov

Nutrition and Gut Microbiome Jason Soars Jason.w.soares.civ@mail.mil LinShu Liu Linshu.liu@usda.gov Hiroshi Nabetani Nabetani@affrc.go.jp Masuko Kobori Kobori@affrc.go.jp Yoonsook Kim Kimyus@kfri.re.kr Jin-Taek Hwang jthwang@kfri.re.kr

General Papers & General Posters Youngmok Kim Youngmok.Kim@finlays.net

SAN ANTONIO March 21-25, 2021

ACS Meeting Theme: Bonding Through Chemistry

3rd Global Symposium on Chemistry and Biological Effects of Maple Food Products Hang Ma hang_ma@uri.edu Navindra Seeram nseeram@uri.edu

Food Complex Matrices Sourav Chakraborty schakraborty@ccsu.edu

Chemistry of Alcoholic Beverages Nick Flynn nflynn@wtamu.edu

Chemistry of Fermented Hispanic Foods Michael Tunick mht39@drexel.edu Elvira deMejía edemejia@uiuc.edu

Impact of Global Disasters on Food Quality, Safety and Security Alyson, Mitchell aemitchell@ucdavis.edu Michael Morello mjmorello226@gmail.com Liangli (Lucy) Yu lyu5@umd.edu

Alternative Protein Sources for Human Nutrition (Beef vs. Plant-based Protein) Brian Guthrie Brian_Guthrie@cargill.com Michael Morello mjmorello226@gmail.com John Finley jfinle5@lsu.edu

Chemistry of Meat (tentative) Guoyao Wu g-wu@exchange.tamu.edu Nick Flynn nflynn@wtamu.edu

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Agnes Rimando Memorial International Student Symposium Mike Tunick mht39@drexel.edu Michael Granvogl michael.granvogl@uni-hohenheim.de Boyan Gao gaoboyan@sjtu.edu.cn Roberta Tardugno roberta.tardugno@gmail.com

Impact of Industrial Processing and Home Preparation Methods on Nutrients and Bioactive Compounds in Foods (tentative) Xianli Wu Xianli.Wu@ars.usda.gov Shaoping Li spli@umac.mo

Chemistry Behind Consumer Acceptance of Flavor and Health Benefits Bhimu Patil b-patil@tamu.edu

ATLANTA August, 22-26, 2021

ACS Meeting Theme: Resilience of Chemistry

Food Complex Matrices Sourav Chakraborty schakraborty@ccsu.edu

Carbohydrate-based Fat Replacers TBD

Advances in Nanomaterials for Food and Agricultural Applications Bosoon Park Bosoon.Park@USDA.gov Sechin Chang Sechin.Chang@USDA.gov

Nutraceutical Lipids Fereidoon Shahidi fshahidi@mun.ca



The International Chemical Congress of Pacific Basin Societies 2020 Honolulu Dec 15-20, 2020

<https://pacificchem2020.abstractcentral.com/>
Call for submissions (closes April 1, 2020)

Flavor and Bioactive Compounds in Fermented Foods and Beverages (#156)

- 1) Flavor/off-flavor characterization and identification, flavor generation during fermentation and storage.
- 2) Chemistry/biochemistry of bio-active compounds, including identification of bioactive compounds in fermented foods, metabolism of bioactive compounds, and mechanism of fermented foods in preventing disease and improving human health.
- 3) Analytical methodologies including new developments in sample prep, chromatography, identification, structural elucidation.

Symposium co-organizers: Michael C. Qian (michael.qian@oregonstate.edu), Philip Marriott, Zhen-Yu Chen, Chikun Wang, Hirotoishi Tamura, Yanping L. Qian, Young-Suk Kim, Mingwei Zhang

AGFD Communicating Culinary Chemistry Competition: Colloids



takes place 10:30 am Wednesday, March 25, at the Drexel Dept. of Food & Hospitality Management, in Philadelphia. Teams from Oregon State U., Columbia U. and U. of Puerto Rico RIA Piedras will demonstrate their competition entries. All entries involve to cooking with colloids, interpreted broadly. Immediately after the formal presentations, the teams will participate in an interactive session explaining the chemistry involved, with a tasting of the foods prepared by the contestants for those in attendance. The panel of judges includes **Sunil Malapati**, Clarke University; **Kathryn Deibler**, Cornell U.; and **Richard V. Pepino Jr.**, Executive Chef, Food & Hospitality Management, Drexel University. See the ACS Nat'l Mtg website for tickets (\$10). May the best team win!

Executive Committee Meeting Minutes

Monday, August 26, 2019 at the San Diego Convention Center

Takes place at each ACS National Meeting

Attendees: Michael Appell, Xueting Fan, Brian Guthrie, Youngmook Kim, Linshu Liu, Kathleen Luo, Alyson Mitchell, Bhimu Patil, Michael Qian, Stephen Toth, Michael Tunick, Lucy Yu, Yuzhu Wang, John Finley, Michael Granvogl, Fereidoon Shahidi, Lauren Jackson, Bosoon Park, Katharina Scherf, Sechin Chang, Yanping Qian, Kathryn Deibler, Jane Leland, Michael Morello

AGFD Chair Xueting Fan called the meeting to order at 5:35 PM.

The **minutes** of the previous meeting were approved with no changes.

Stephen Toth gave the **Treasurer's Report**. The division spent \$36,105 for the Orlando meeting. There is no historical information for Orlando, however expenditures are appropriate for a meeting without a banquet. The division had \$65,153 in income for the year. The ACS allotment came before the meeting this year. Michael Tunick applied for and received an IPG award. Division expenditures were \$51,412. The division paid \$1,000 for new website design. The division is in good shape in terms of investments and has \$71,219 in cash on hand. The division has 2-3 years expense of operating budget in reserve as advised by ACS. We cashed in American Balanced Funds 40K to put into the division checking account to cover expenditures and keep the division operational. Overall, the division is doing very well.

Sarah Leibowitz, from the Kansas City section gave a **Spencer Award** update. The Spencer Award is given for excellence in the field of agricultural and food chemistry. Eckard Hellmuth passed away about 2 weeks ago. Sarah is gathering remembrances and stories to share with the family. Please send remembrances and stories to her via email. The Spencer Award, from inception, was supposed to alternate award years between AGRO and AGFD. This has not happened and she would like to propose that we force it to happen and encourage nominations to come in year-round. This will ensure that the award represents both divisions equally. Nomination award packages are good for 3 years. Voting is scored as the top 5 packages by the 12 judges. Packages can be updated during the 3 years. The year AGRO sponsors the Spencer Award, AGFD will sponsor the Hendricks Award.

Xueting Fan discussed the 2020 **C4 Competition** (Communication Chemistry Cooking with Colloids). Organizers are requesting a budget of \$8,900. This will cover the costs for travel of 3 teams composed of 4 members at \$500 per person, and food (\$2,250) and awards (\$250). Many years in the past we have supported it. Ticket sales come back to the division. Division members asked if the money is well spent and if there is a way to track the return on investment. Division members would like to know if there is significant retention of students who participate in the event. Michael Appell suggested that the organizers consider trying to get sponsorship for the competition. All members agree the event is good for the division and support the overall idea of the event. Alyson Mitchell pointed out that student membership should not be considered the only benchmark of value to the division, and publicity for the division should also be considered as between 50-70 people attend the event. Kathryn Deibler suggested having the winning team write up a news piece for the Division newsletter. Michael Qian suggested giving all students who buy a ticket for the event a 1-year free membership to the division. Kathryn Deibler indicated that we need to publicize the event better, and that the organizers may consider changing the name of the event to something that is more aligned with our division. All members agree that the C4 is confusing. All members like a name such as AGFD Culinary Chemistry Competition. This would make clear what the competition is and which division it is associated with. Alyson Mitchell suggested that one executive committee member be included on the judging panel. Members indicated that it is not technically part of the ACS program so there is the possibility to record parts of it to improve publicity. A motion was put forward by Michael Morello to provide funding for the event with the caveats that C4 organizer (Gavin Sacks) provide a list of the names of past participants to the executive committee, that the winning team write up a piece for the division newsletter, that organizers strongly consider changing the name of the competition to the AGFD Culinary Chemistry Competition and include an executive committee member as a judge, and that organizers reach out to ACS to get some higher level publicity. Motion passed. Michael Tunick will contact Gavin Sacks regarding these suggestions.

Lucy Yu gave the **Program Report** for San Diego. There were over 400 abstracts submissions and 42 sessions. Symposium organizers were encouraged to invite speakers to also submit abstracts for posters. This led to confusion as

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some speakers submitted duplicate abstracts for posters, which she had to reject. This will be clarified moving forward.

Lucy Yu gave the **Future Programs Report** for the Philadelphia meeting. The meeting will have 11 symposia including the graduate student symposium. Abstract submission opened in MAPS on August 12, 2019. Lucy asked symposium organizers to ask speakers to submit poster presentations if possible. MAPS will close Oct 14, 2019 - a hard deadline. Lucy encouraged all executive committee members to present a poster at the meeting. Lucy indicated that starting from the San Francisco meeting the abstract submission deadline will be closed after the Spring National meeting and the Even Programs Rule will go away. The room allotment for the San Francisco meeting will be calculated based on the average of all division papers from 2016-2019 divided by 8 - based upon the assumption of 8 papers per session per room and 9 sessions in each room per week. ACS wants to encourage maximum use of sessions and rooms. The national *program theme* will not be used to determine placement in the Convention Center. For the Atlanta meeting 2021, ACS is proposing to not have the Thursday technical sessions, and to have longer day programs. Changes include: two Sunday posters sessions at 11:30 AM-1:30 PM and at 5:30-7:30 PM in the exhibition hall; a Monday poster session at 11:30-1:30 PM and Sci-Mix at 8:00-10:00 PM; two Tuesday poster sessions at 11:30-1:30 PM and at 6:00-10:00 PM; and two Wednesday poster sessions at 11:30-1:30 PM and 5:30-8:00 PM followed by a closing reception at 8:00-11:00 PM on Wednesday. All technical sessions will be from 8:00-6:00 PM. Mike Morello indicated that this needs to be brought up with DAC representatives and DAC as it may cause conflicts with divisional programming (e.g. AGFD Sunday poster session). Michael Appell pointed out that increased opportunities for poster presentations could be financially advantageous to the division as speakers could be encouraged to present posters at the meeting. Symposia for San Francisco (21), San Antonio (9) and Atlanta (7) are in good shape. A call for the San Antonio meeting will go out in October. A budget of \$40,000 for the Philadelphia meeting was proposed and passed. Michael Qian indicated that the 3rd International Flavor and Fragrance Conference will occur Oct 1-4 in Chile in Santiago, Chile. It will have 55 oral presentations and 40 posters. The poster submission closing date is this week.

Subdivision Reports: no Flavor subdivision report was given but Lucy Yu indicated that there were enough flavor symposia for San Francisco. No Functional Foods & Natural Products report was given, however, they have a symposium planned on fermented foods for Philadelphia and one on natural foods for San Francisco 2020. This division as identified an incoming secretary, Xian Wu of Miami University. John Finley gave the report for the Biotechnology (now Food Bioengineering) subdivision. John indicated that Yu Wang would fill the secretary position. However, it was noted that Yu Wang is already listed as the secretary of both the Flavor and Functional Foods and Natural Products subdivisions. Michael Appell suggested forming a committee to help fill subdivision officer positions and avoid overlap and open positions. Lucy Yu suggested that all subcommittee members attend at least one national meeting a year. A committee was formed, composed of immediate past chair, Xuotong Fan, and the following AGFD members: Michael Morello, Bhimu Patil, Michael Appell and Kathryn Deibler. This committee will develop guidelines for subcommittee leadership roles and work with subcommittee chairs to fill positions. All nominations for subcommittee positions will be sent to this committee for approval. The Nutrition subdivision Chair, Linshu Liu, indicated that the subdivision gave 20 oral presentations and posters in San Diego. He also indicated that three people couldn't get visas and were not able to attend the meeting. Full day symposia on pectin chemistry and medicine and on food development for aging people are planned for San Francisco. Food Safety subdivision chair, Michael Granvogl, indicated the subdivision presented three symposia in San Diego, and that two symposia are planned for San Francisco. Michael also nominated Katarina Scherf from Carlsberg, Germany as a potential secretary for the division, and he will send the past chair a biography and a CV and her stated interests. LinShu proposed a new subdivision focused on Gut Microbiota. Michael Morello suggested that individuals interested in the topic should begin by programming symposium around the topic first and determine if there are enough people interested to form a formal subdivision.

Mike Appell gave the **Councilor's Report**. The division has lost a councilor this year. Current councilors are: Michael Appell (2019), John Finley (2020), Lauren Jackson (2020), Michael Tunick (2021). The division grew in membership. The councilor position was lost due to a lack of participation at council meetings. Michael Appell will step down as he is also a Bylaw councilor. This will give us 3 councilors. John Finley's and Lauren Jackson's terms will end in 2020. The division will need to elect 2 new councilors in 2020. We currently have 4 alternate councilors: Keith Cadwallader (2020), Michael Qian (2021), Alyson Mitchell (2019) and Kathryn Deibler (2021). Next year at the Philadelphia meeting we will nominate two councilors and one alternate. Election for these positions will be by formal mail ballot sent via email. It will need to be certified by ACS by Nov 1, 2020. ACS will also need to be notified that an election would be conducted

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that satisfies the ACS rules for councilor and alternative councilor. Michael Appell indicated that council will be voting on elections to approve chemical code of conduct and to approve the selective committees of council. Councilors will also be voting on the realignment of Pittsburg section #3 and moving it to district #2 to give an equal number of people in the divisions. All ACS members will be eligible to vote on a motion to change the rules that govern the bylaws in order to open up ACS government to more people. Michael Tunick indicated that the DAC would like to have *best practices* for the meetings including having a “Twitter Master” at each meeting and also divisional pins (which we already do). Kathryn Deibler indicated that we have tried Twitter in the past and no one followed our division. Alyson Mitchell suggested that we identify an *Influencer* as a way to make this more successful. Tweeting is not going to be effective unless we have someone who has thousands of followers that is willing to tweet updates during the meeting. Navindra Seeram was identified as a possible person who could help with this. Michael Morello gave a councilor report on behalf of John Finley. He indicated that there are several non-councilor positions for ACS committees. It is a way to get recognition for the division. ACS will also pay \$750 for your participation in these meetings.

The **ACS themes for upcoming meetings** include: Fall 2021 (Atlanta) Resilience of Chemistry; Spring 2022 (San Diego) Evolving Biomolecular Science; Fall 2022 (Chicago) Sustainability in a Changing World; Spring 2023 (Indianapolis) Crossroads of Chemistry. The Committee on Science and Technology is interested in co-sponsored symposia. Lucy Yu will help identify emerging chemistry in the division that would be good for co-sponsorship and will send Mike Morello an updated list of these symposia. The United Nations has published 37 sustainability goals. ACS has identified 5 top priorities and 12 secondary goals from this list. The top priority goal is eliminating world hunger. ACS may give new tools to communicate to the public and give academics new terminology for grant writing using language they are leveraging moving ahead. Mike will get more information for the division as it develops.

Kathryn Deibler reiterated that ACS covers \$750 for **travel for members representing the division** on committees and that her local section matches that. The division benefits from having members on committees. ACS committees require significant work and matching funds may increase participation. A motion stating that the division will provide up to \$3,000 for matching travel per meeting for non-councilors attending ACS committee meetings, with the caveat that they must provide a report to the executive committee meeting, was put forward and passed.

Brian Guthrie gave the **Nominations** report. A slate of officers was approved and include: Liangli (Lucy) Yu, Chair; Youngmook Kim, Chair-Elect; Linshu Liu, Vice Chair; Alyson Mitchell, Secretary; and Stephen Toth, Treasurer.

Michael Morello gave the **Awards Committee** report. He will continue to lead the IFF/AGFD award committee. Fereidoon Shahidi will continue to lead the AGFD Fellow award committee. Chi-Tang Ho will continue to lead the student award committee but would be happy to relinquish this position. Lucy Yu indicated that she would be interested in being lead on student awards and Bhimu Patil volunteered to help Lucy. Kathryn Deibler asked for help her with the poster competition and undergraduate student symposium. Mike Appell, Alyson Mitchell, Linshu Liu and Lucy Yu volunteered to help. Fereidoon Shahidi gave an update on the AGFD Fellow award. This year we received numerous nominations. Therefore we have several people who received the award. Lucy Yu asked if all award submissions could be moved to same date of Oct 1. Kathryn Deibler indicated that we have tried this in the past but hesitates to move the student deadlines up as students are just starting the school year. Alyson indicated that students in the quarter system would be expected to submit an abstract two weeks after school starts therefore undergraduates likely would not submit abstracts. Kathryn asked to discuss the pros and cons off-line since the executive committee needs to vote on this. All award recipients are listed in the Cornucopia and minutes of the spring meeting.

Kathleen Luo gave the **Student Committee** report. During the poster session student reps interacted with poster presenters and handed out buttons and stickers. Kathleen noted it was difficult to interact with poster presenters as many were at away from their posters. A student dinner was planned after the poster session at the Half Door Brewing Company. This year student reps coordinated a beach outing and San Diego Zoo trip to help recruit and retain students in the division. Zhichao Zhang, from University of California Davis was elected as the next student representative. The excellent contribution of ZhuZhu Wang was acknowledged. Kathleen Luo's appointment was extended for one year to create a one-year over-lap between the student representatives so information is transferred between students.

Lauren Jackson gave the **AGFD Strategic Planning** report. The division is in the fourth year of the strategic plan and has met most plan goals. The division needs to start thinking about who will lead the next strategic planning committee.

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Lauren indicated that DAC has changed the rubric they use to score the IPGs. The rubric is more transparent and includes 4 criteria: innovation, impact, sustainability, leveraging. Many IPG submissions do not sufficiently address sustainability. Lauren indicated the need to consider sustainability when submitting the next strategic planning grant.

Xuetong Fan reported for **Cornucopia** editor Carl Frey. There were 250 copies of the Cornucopia printed for the San Diego meeting. These were shipped out with an estimated delivery date of Saturday. Copies did not arrive yet and so additional copies were made and handed out at the meeting.

Hospitality/Public Relations, Alyson Mitchell organized the Chair awards dinner at the Harbor House and the executive committee dinner at Buca De Beppo.

Membership Chair Michael Qian reported that AGFD membership continues to increase. In June the division had 2,923 members. The demographic report indicated that most members are over 56 years old. Michael Qian indicated that he would like to see increased international membership and asked the division to support a website offered in both English and Chinese. Lucy Yu pointed out the official language of the meeting is English and that members should have some command of English in order to present. Brian Guthrie then asked why not offer the website in French or Japanese as we have more of these international members. Xuetong Fan asked for more discussion before moving ahead with this proposal. Mike Appell suggested Michael Qian put the idea forward in an IPG.

Lucy Yu gave the **Journal report** on behalf of Thomas Hofmann. The impact factor of the journal increased from 0.34 to 0.3571. The formula used to calculate impact factors changed this year and many journals impact factor decreased. The journal has a new associate editor, Shengmin Sang. Associate editors John Finley and Russell Molyneux retired and were promoted as honorary editors. The Editorial advisory board added several new and mid-level advisors. JAFCD added a new category of advisors called *Ambassadors of Excellence* to help maintain the quality and reputation of the journal. Total submissions increased to over 7,000. The acceptance rate was ~20% (1,450) and processing was 69-78 days. Citations totaled over 100,000.

Michael Appell gave the **Communications report**. A website subcommittee formed during the Spring meeting included Mike Appell, Alyson Mitchell, Stephen Toth, and Michael Qian. The subcommittee has not yet met to decide the new website format. As ACS is no longer supporting our old website, Michael Appell has a new temporary site created on wics.com. This cost ~\$350 for 3 years including the domain. Michael Appell paid for this out of his own pocket. This will provide us a place to put division information until we can decide on a permanent platform. Motion was put forward to purchase a Goto meeting subscription (up to \$500) so the subcommittee can meet bi-weekly and get this done. Motion passed. A motion passed to reimburse Mike Appell for payment of the temporary site.

Old Business. None to report.

New Business. The division has two submissions for symposia at Pacificchem for Dec 15-20, 2020.

The meeting adjourned at 8:08 PM

Submitted by Alyson Mitchell, AGFD Secretary

Business Meeting Minutes

Wednesday, August 28, 2019 at the San Diego Convention Center

Takes place at each ACS National Meeting

Attendees: Michael Appell, Xuetong Fan, Alyson Mitchell, Michael Tunick, Lucy Yu, Mathias Sukan, John Finley, Liz Kreger, Tony Shao, Greg Fridman, Luis Bastarrachea, Tony Jin

Xuetong Fan called to order at 12:01 PM and gave a summary of the **Executive Committee meeting**. Xuetong discussed issues associated with a continued lack of involvement of some subdivision officers and over-involvement of other subcommittee officers. He indicated that a subcommittee was formed (Xuetong Fan, Mike Morello, Mike Appell, Brian Guthrie, Bhimu Patil and Kathryn Deibler) to draft rules for subcommittee involvement. John Finley suggested adding an impeachment process.

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John Finley indicated that Linshu Liu proposed forming a new **subdivision** focused on the gut microbiome. Xuetong Fan indicated that another possibility for a subdivision would be one focused on nanotechnology and material science. Lucy Yu indicated that the Executive Committee thought it was best for anyone proposing a new subdivision to start by programming in the area in order to generate a track record of success and involvement before the subdivision is formalized. Lucy also indicated that she thought subdivision officers should make a minimum of one meeting a year.

Lucy Yu noted **changes for San Francisco meeting** include the fall abstract submission deadline closing after the Spring National meeting and the Even Programs Rule will go away. Room allotment for the San Francisco meeting will be calculated based on the average of all division papers from 2016-2019 divided by 8. The National Program theme will not be used to determine placement in the Convention Center. All in attendance agreed to host the meeting in the Convention Center. John Finley suggested joint programming with other divisions within the theme. He indicated that there is information for joint programming on the ACS website. Lucy expressed concern with making our programming too visible in advance of the meeting. All agreed that AGRO would be a good consideration for joint programming as its programming has been in the Convention Center for past 3 years.

Lucy Yu indicated **changes proposed for the Fall 2021 meeting in Atlanta**. ACS is proposing to have no Thursday technical sessions, and to have longer day programs. Changes include: two Sunday posters sessions at 11:30 AM-1:30 PM and at 5:30-7:30 PM in the exhibition hall; a Monday poster session at 11:30-1:30 PM and Sci-Mix at 8:00-10:00 PM; two Tuesday poster sessions at 11:30-1:30 PM and at 6:00-10:00 PM; and two Wednesday poster sessions at 11:30-1:30 PM and 5:30-8:00 PM followed by a closing reception at 8:00-11:00 PM on Wednesday. All technical sessions will be from 8:00 AM-6:00 PM. All agreed that long days would be expected if this is approved. It was not clear how the poster sessions will be handled and how this will affect our division's Sunday poster session.

Our division was reduced from 4 to 3 councilors. There were 16 councilors taken away from divisions due to poor councilor participation and attendance. Divisions with councilors that didn't attend Councilor Meetings lost a representative. Mike Appell indicated that these councilors likely will go to International Chapters. Council positions are reviewed every 4 years.

Division awards were presented at the Awards Banquet on August 27, 2019. All agreed the venue was great. The AAFC Award went to Fidel Toldra, and 5 AGFD Fellow Awards were given to Xuetong Fan, Michael Granvogel, Luke Howard, Bosoon Park and Yan Xu. Chi-Tang Ho plans to step down from the student awards committee. Lucy Yu offered to work with him and eventually lead this committee. The Young Scientist award was awarded to Ranjith Ramanathan. The Sterling Hendricks award went to John Finley. Dr. Michael Qian was selected to be an ACS Fellow. Student representatives did an excellent job. Kathleen Luo will continue for 1 more year. ZhuZhu Wang finished her rotation and was thanked during the awards banquet. ZhiChao Zhang was selected as the incoming student representative to the Executive Committee. Alyson Mitchell indicated all award winners are reported in the Cornucopia and announced in the Spring Minutes, so there is real no real need to discuss at length during the Fall Executive Committee meeting. This will help make the meeting more efficient. John Finley proposed a special recognition award for Mike Morello for his years of dedicated service to the Division. Mike Appell suggested creating an award for distinguished contribution for members from industry. The committee agreed that we should create an Exemplary Volunteer Award and an Industrial Career Achievement Award. A motion to create these awards was passed. Mike Appell, Mike Tunick and John Finley will form a subcommittee to develop criteria for these awards. The committee approved to give the Exemplary Volunteer Award to Mike Morello and the Industrial Career Achievement Award to Cynthia Mussinan at the Philadelphia meeting. John Finley suggested having a Lucite cornucopia made for the award.

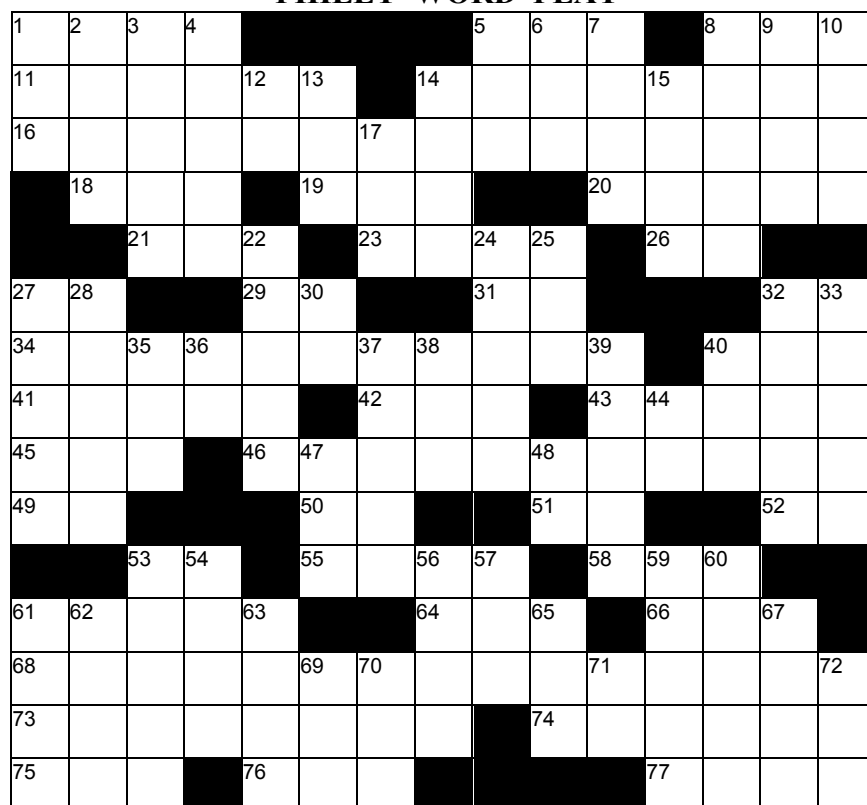
A motion approved the following **slate of officers** proposed at the Executive Committee meeting: Liangli (Lucy) Yu, Chair; Youngmook Kim, Chair-Elect; Linshu Liu, Vice Chair; Alyson Mitchell, Secretary; and Stephen Toth, Treasurer.

Under **New Business**, Lucy Yu reported that JAFC editor, Thomas Hofmann, wants to publish a special issue with AGFD program highlights from ACS National Meetings beginning with San Diego. Lucy suggested that organizers of smaller symposia could write a mini-review and that organizers of larger symposia could write a review and/or have a few of the authors prepare manuscripts (review, perspective review or mini-review) related to their presentations.

The meeting adjourned at 1:11 PM

Submitted by Alyson Mitchell, AGFD Secretary

PHILLY WORD PLAY



A prize to the first send
a correct solution to Carl Frey
(via smartphone photo/e-mail) at -
cfreyenterprise@gmail.com

ACROSS

- | | | | |
|---|---------------------------------|--|--|
| 1 Theater dialog helper | 49 -- <i>You Like It</i> | 7 Jane Austen character:
---- Woodhouse | 40 Boy's name that sounds like
it could be dinner |
| 5 Mimic or impersonate | 50 101 in old Rome | 8 Addition to a building | 44 Kipling's <i>Just -- Stories</i> |
| 8 Faulkner: --- <i>Lay Dying</i> | 51 Abuser recovery group | 9 Tajiki---- or Kazak---- | 47 Critical treatment ward |
| 11 Where dollars are made | 52 -- Norton or -- Wood | 10 Madonna's <i>La ---- Bonita</i> | 48 Sodium on a chemistry table |
| 14 Periodic table entries | 53 Post B.C. year | 12 5 cent piece metal | 53 Not together |
| 16 Philly foodie 'Market' | 54 Some PC ports | 13 Explosive: $C_7H_5N_3O_6$ | 54 Go here for a bagel w/schmeer |
| 18 Make with a shovel | 58 'Kingly' colas (abbr.) | 14 Scratch metal or glass | 56 Pear variety |
| 19 Tic, ---, Toe | 61 Wet lab glassware | 15 Home of Dublin & Cork | 57 Grounded fast flyer |
| 20 Spectator sport venue | 64 Big furry Mexican animal | 17 Gay-Lussac's --- Laws | 59 Eases or relaxes |
| 21 Wrangler competitor | 66 Leatherworking tool | 22 Ball field mistake | 60 Steal |
| 23 <i>The Good ---- Lollipop</i> | 68 Rocky Balboa's ring name | 24 Girl's name that sounds
like it could be an olefin | 61 Sherlock Holmes' accessory |
| 26 Former spouse | 73 It can be a table or an acid | 25 Buddy | 62 Entry on a list |
| 27 @ | 74 Owl's home: ----- Univ. | 27 First of a Grecian series | 63 Uncles in Tijuana |
| 29 H ₂ O purification method | 75 CPR pro | 28 <i>Scrabble</i> playing pieces | 65 Quaker ---meal |
| 31 Marie Curie's find | 76 Ready, ---, Go! | 30 Hourly worker benefit | 67 1970's hit by The Kinks |
| 32 6 points in football | 77 Chair, bench or stool | 32 <i>We hold ----- truths to be</i> | 69 Sports drink: Gator--- |
| 34 Cracked Philly attraction | | 33 Challenged | 70 --- wit or --- pick |
| 40 DooWop band: --- Na Na | | 35 Purchase | 71 24 hours of -- Mans |
| 41 Once it was planet #9 | | 36 -- go home! | 72 Take home pay |
| 42 One in Deutschland | | 37 Bigfoots | |
| 43 Alcohol + Acid → ----- | | 38 It can have a value = 1 or 0 | |
| 45 --- <i>Nineteen</i> or --- <i>Jude</i> | | 39 Franz (<i>The Merry Widow</i>) ----- | |
| 46 Philly square named for
an astronomer | | | |

DOWN

- 1 Nasty dog
2 Not new
3 Internet message
4 Line of high ground
5 India Pale ---
6 Revolutions --- minute

AGFD DIVISION MEMBERSHIP APPLICATION

The Agricultural and Food Chemistry Division (AGFD) of the American Chemical Society (ACS) is a non-profit organization dedicated to the technical advancement of all aspects of agricultural and food chemistry. AGFD encourages technical advancement in the field by -

- organizing symposia/workshops on agricultural/food chemistry at ACS national meetings and other venues
- publishing proceedings of AGFD symposia
- publishing the *Cornucopia* newsletter
- updating members several times a year via e-mail blasts
- hosting social and networking gatherings at ACS national meetings
- providing cash awards and recognition to leading undergraduate and graduate students, young scientists and established scientists in the field of agricultural and food chemistry

At ACS National Meetings you can discuss division activities at the AGFD information table located near the AGFD technical session rooms. Join 2900 AGFD members via the application form (below) or on-line at www.agfoodchem.org or www.acs.org (click on Communities, Technical Divisions, Technical Division List) or call ACS (800)333-9511 (in US) or 616-447-3776 (outside US). Payment by Visa/Master Card or AmEx.

Check out AGFD on You Tube: <https://mail.google.com/mail/u/0/#inbox/160d7729ab173de5?projector=1>

APPLICATION FOR AGFD DIVISION MEMBERSHIP (7623P)	
Title	
Name	
1 st address line	
2 nd address line	
City	
State	
Zip code	
Country	
e-mail address	
Phone	
check one	MEMBERSHIP FEE
<input type="checkbox"/>	I am an ACS member and wish to join AGFD (\$10.00)
<input type="checkbox"/>	I am not an ACS member and wish to join AGFD (\$15.00)
<input type="checkbox"/>	I am a full time student and wish to join AGFD (\$10.00)
Be cool JOIN AGFD	Return application, with payment (payable to American Chemical Society), to AGFD Membership Chair: Michael Qian, Professor Department of Food Science and Technology Oregon State University Corvallis OR 97330

ROSTER OF AGFD OFFICERS & COMMITTEE LEADERSHIP

Chair - Serves 1 year. Presides over Division meetings & appoints committees
Liangli (Lucy) Yu
University of Maryland
112 Skinner Bldg.
College Park MD 20742
301-405-0761 lyu5@umd.edu

Chair-Elect - Serves 1 year. Substitutes for the chair as needed
Youngmok Kim
Finlays
81 Ocean State Drive
North Kingstown RI 02852
1-401-522-5553
youngmok.kim@finlays.net

Vice-Chair - Serves 1 year. Assists Chair-elect. Develops future technical programs.
Linshu Liu
USDA-ARS-ERRC
linshu.liu@ars.usda.gov

Secretary - Responsible for Division correspondence and meeting minutes.
Alyson Mitchell
University of California
One Shields Avenue
Davis CA 95616 530-304-6618
aemitchell@ucdavis.edu

Treasurer - Responsible for Division finances.
Stephen Toth
International Flavors & Fragrances R&D
1515 Hwy. 36 Union Beach NJ 07735
732-335-2772
stephen.toth@iff.com

Cornucopia Editor - Edits newsletter.
Carl Frey cfreyenterprise@gmail.com
203-918-6007

Councilors - Represent Division for 3 years on ACS council.
John Finley (thru '20) jfinle5@lsu.edu
Lauren Jackson (thru '20)
lauren.jackson@fda.hhs.gov
Michael Tunick (thru '21)
mht39@drexel.edu

Web Master - Maintains web site.
Michael Appell
michael.appell@ars.usda.gov

Alternate Councilors - Substitute for Councilors. Serves 3 years.
Keith Cadwallader (thru '20)
cadwldr@uiuc.edu
Kathryn Deibler (thru '21)
kdd3@cornell.edu
Alyson Mitchell (thru '19?)
aemitchell@ucdavis.edu
Michael Qian (thru '21)
Michael.qian@oregonstate.edu

At-Large Executive Committee Members - Assist in Div. management
Serves 3 years.
Terry Acree (thru '21) tea2@cornell.edu
Jane Leland (thru '20)
JLelandEnterprises@gmail.com
Robert McGorin (thru '20)
robert.mcgorin@oregonstate.edu
Mathias Sucan (thru '21)
Mathias.sucan@gmail.com

Awards - Solicits nominations, oversees awards process.
Chair Michael Morello
mjmorello226@gmail.com
Student Awards Liangli (Lucy) Yu
lyu5@umd.edu
Fellow Awards Fereidoon Shahidi
fshahidi@mun.ca
Student Presentations Kathryn Deibler
kdd3@cornell.edu
Canvassing Stephen Toth
stephen.toth@iff.com

Finance - Monitors Division's finances for 1 year. Led by Immediate Past Chair
Xuetong Fan xuetong.fan@ars.usda.gov

Hospitality - Organizes receptions and banquets. Alyson Mitchell
aemitchell@ucdavis.edu

Membership - Recruits and retains Division members. Michael Qian
michael.qian@oregonstate.edu

Multidisciplinary Program Planning helps coordinate nat'l mtg programming
John Finley jfinle5@lsu.edu

Nominations - Develops officer slate. Served by Immediate Past Chair.
Xuetong Fan xuetong.fan@ars.usda.gov

Public Relations - Publicizes Division.
Alyson Mitchell aemitchell@ucdavis.edu

Student Activities - Attract and retain graduate/undergraduate student members.
Kathleen Luo kkluo@ucdavis.edu
Zhuzhu Wang zhuzhuw2@illinois.edu

Sub-divisions Develop symposia.
Flavor

Chair, Tony Shao
tony.shao@pepsico.com
Chair-Elect, GK Jayaprakasha
gkjp@tamu.edu
Vice-Chair, Yu Wang
yu.wang@ufl.edu
Secretary, Michael Granvogl
michael.granvogl@tum.de

Functional Foods & Natural Products

Chair, Hang Ma hang_ma@uri.edu
Chair-Elect, Yu Wang
yu.wang@ufl.edu
Vice-Chair, Xian Wu
Wux57@miamioh.edu
Secretary, (open)

Food Bioengineering

Chair, John Finley jfinle5@lsu.edu
Chair-Elect, Sam Alcaine
sda23@cornell.edu
Vice-Chair, Christopher Simmons
cwsimmons@ucdavis.edu
Secretary, Tianxi Yang
Tianxu.Yang@fda.hhs.gov

Nutrition

Chair, Youngmok Kim
yongmok.kim@finlays.net
Chair-Elect, Mina Kim
minakim@jbnu.ac.kr
Vice-Chair, Mathias Sucan
Mathias.sucan@gmail.com
Secretary, Hye-Seon Kim,
hyeseon.kim@usda.gov

Food Safety

Chair, Xiaohua He,
xiaohua.he@ars.usda.gov
Chair-Elect, Juhong Chen
juhong@cornell.edu
Vice-Chair, Tony Jin
Tony.Jin@usda.gov
Secretary (2020), Reuven Rasooly
Reuven.rasooly@usda.gov
Secretary (2021), Xiaonan Lu
Xiaonan.lu@ubc.ca

AWARD (and other good) NEWS

Gary R. List, University of Illinois, won the 2020 **Award for the Advancement of Application of Agricultural and Food Chemistry**. This award recognizes his outstanding contributions to pure and applied agricultural and food chemistry, much of it performed while at the USDA-ARS-NCAUR in Peoria, Illinois. The award presentation will take place at the 2020 Fall ACS Meeting AGFD banquet and celebrates his career researching the chemistry and technology of edible fats and oils and oil seed processing. His research has led to modified processes for steam refining, food grade lecithin recovery, oil extraction by supercritical carbon dioxide, and *trans*-fat reduction. He demonstrated that nitrogen blanketing can extend the shelf-life of packaged edible oils. His research served as the basis for the AOCS anisidine method to assess secondary oxidation. Dr. List authored 113 peer reviewed journal articles, 41 book chapters, 8 books and contributed to 175 other articles/proceedings. He serves on the editorial board for J. Am. Oil Chem. Soc., Inform, and the lipid library.

Xinhe (Michael) Huang at the University of Illinois at Urbana-Champaign received the 2020 **Roy Teranishi Graduate Fellowship** in Food Chemistry. This honor goes to a beginning graduate student with an outstanding graduate GPA who shows promise of an excellent research career. He is conducting his dissertation research in the flavor science laboratory of Keith Cadwallader at the University of Illinois. His project focuses on the aroma characterization of blanco tequila using advanced analytical techniques, including gas chromatography-olfactometry, stable isotope dilution analysis combined with GC-MS and model sensory studies.

The following loyal members of AGFD received their **25 Year AGFD Service Award** in 2020: Ronald Belanger, Mark Berhow, Bela Buslig, Christoph Cerny, Paul Cook, Laurence Davin, Jean Delfiner, Glenn Dria, Gillian Eggleston, Paul Ford, Tong-Jen Fu, Hylsa Garcia, Thomas Hartman, John Hsu, Chris Johnson, James Kennedy, Susan Kraft, Jawad Malik, John Manthey, Terrence Miesle, Steven Paeschke, Lee Raley, Peter Schieberle, Mathias Sucan, Chris Vlahakis, Mark Walsh, Jolynne Wightman, Peter Winterhalter

Jerry King, University of Arkansas, received the 2020 **Kenneth A. Spencer Award** for Outstanding Achievement in Agricultural and Food Chemistry. The award is given by the Kansas City Section of the ACS. The Spencer Award, the most prestigious ACS award recognizing advancements in agricultural and food chemistry, honors his work on 'green' sub- and supercritical fluid chemical separations and processing of natural agricultural products. Dr. King is currently CEO of Genesis Engineering.

H.N. Cheng, a research chemist with the US Department of Agriculture, Agricultural Research Service, was elected the 2020 **American Chemical Society president-elect** by members of ACS. Dr. Cheng will serve as president of the society in 2021 and immediate past-president in 2022; he will also serve on the board of directors during those years.

Tadeusz (Ted) F. Molinski received the 2020 **Ernest Guenther Award in the Chemistry of Natural Products** for his marine natural products research and its potential application to treatment of human disease. Dr. Molinski is currently Professor of Chemistry at University of California – San Diego. Givaudan sponsors this award.

AGFD congratulates all these awardees and looks forward to their continued successes and contributions.

Find information about all AGFD awards at www.agfoodchem.org Scroll down to and click on *AGFD Award Details* to load a PowerPoint file detailing award eligibility and nomination deadlines as well as lists of past awardees.

2020 AGFD Awards Committee

AAAFCA IFF/AGFD Awards (Mike Morello)
AGFD Fellow Awards (Fereidoon Shahidi)
Spencer Awards (Sarah Leibowitz)
Young Scientist Awards (Michael Granvogl)
AGFD Distinguished Service Awards (Mike Morello)
Student Awards – Teranishi Fellowships (Liangli (Lucy) Yu)
Graduate & Undergraduate Student Symposia (Kathryn Deibler)

AGFD Technical Program

Find AGFD abstracts
in the Cornucopia posted on
the AGFD website

agfdchem.org



SUNDAY MORNING March 22

Conv. Ctr. room 102B Section A

Modulation of the Gut Microbiome by Diet-Derived

Compounds & its Impact on Human Health

T. Wang, X. Wu, Organizers, Presiding

8:30 Introductory Remarks.

8:35 1. Diabetes as an environmental risk factor: Biological significance of metabolic inhibitors and their curcumin adducts. B. Dayal, M.A. Lea, A. Kulkarni, J. Tuteja

9:00 2. Red cabbage microgreens modulation of the gut microbiota is associated with attenuation of high fat diet-induced risk factors in a diet-induced obesity mouse model. Y. Wu, R.W. Li, Q. Pham, H. Huang, X. Jiang, W. Yokoyama, Y. Luo, L. Yu, Q. He, J. Wang, T. Wang

9:25 3. WITHDRAWN

9:50 Intermission.

10:05 4. Natural anthocyanins from berry fruits prevent diabetes through regulating gut microbiota. W. Chen, H. Su, T. Bao

10:30 5. Gut microbiota response to dietary fiber structures extends to plant genotypes. X. Zhang, B. Hamaker

10:55 6. Growth of probiotic *Lactobacillus rhamnosus* GG (LGG) in a simulator of human intestinal microbial ecosystem. L. Liu, J. Firman, K. Mahalak, C. Tanes, S. Daniel, K. Bittinger

11:20 55. Diet intervention in the gut microbiome: Considerations and challenges. C. Chen

Conv. Ctr. room 107A Section B

Chemistry & Health Benefits of Fermented Foods

K. G. Lee, Organizer H. Chun, Y. Kim, Organizers, Presiding

8:30 Introductory Remarks.

8:35 7. Shifts in autochthonous microbial diversity and aroma compositions during the fermentation of *capsicum frutescens* (*Capsicum annum* L.). X. Xu, B. Wu, J. Wu

9:05 8. WITHDRAWN

9:35 9. Self enhancement of GABA synthesis in rice bran using abiotic stress with protein hydrolysates and pyridoxal-5-phosphate. S. Lim

10:05 10. WITHDRAWN

10:35 Intermission.

10:50 11. Study of volatile compounds contributing to "sweet" aroma attributes in icewines. X. Qian, Y. Lan, Y. Shi, C. Duan

11:20 12. Enhancing tolerance of *Saccharomyces cerevisiae* against fermentation inhibitors for sustainable and efficient production of food materials. S. Kim

11:50 13. WITHDRAWN

12:20 Concluding Remarks.

Conv. Ctr. room 110A Section C

Food Packaging Materials: Safety, Active Packaging &

Sustainability Cospons. COMSCI, POLY, PMSE

X. Fan, J. L. Koontz, Organizers T. V. Duncan, J. W. Finley, T. Z. Jin, M. J. Morello, Organizers, Presiding

8:30 Introductory Remarks.

8:35 14. Overcoming technical hurdles to translation of active packaging technologies. J.M. Goddard, J.E. Herskovitz

9:00 15. Antimicrobial packaging to control postharvest decay and retain fruit quality of fresh fruits. C. Xiao, S. Saito, D. Obenland

9:25 16. Clamshells for small fruits with or without controlled-release disinfectants. J. Bai, X. Sun, A. Plotto, E. Baldwin

9:50 Intermission.

10:10 17. Use of lipid nanoemulsion-doped anti-fungal packaging films to control postharvest disease in small fruits. V. Trinetta, U. Yucel

10:35 18. Film packaging or direct coating: Which is the better antimicrobial packaging method?. T.Z. Jin

11:00 19. Neem oil encapsulated electrospun anti-fungal and anti-oxidant polyurethane nanofibrous bags for seed storage. M.K. Gaydhane, S.P. Pudke, C.S. Sharma

Green Polymer Chemistry: New Products, Processes & Applications Novel Materials & Applications
Spons. POLY, Cospons. AGFD, CELL
Location: Loews Hotel Congress room C

SUNDAY AFTERNOON

Conv. Ctr. room 102B Section A

Withycombe-Charalambous Graduate Student Symposium

K. Deibler, Organizer, Presiding

1:30 Introductory Remarks.

1:40 20. Fatty acid ester of cellulose nanocrystals attached with polyethylene glycol for stabilization and targeted delivery of beta-carotene oil-in-water nanoemulsion. A.S. Patel, B. Nayak

2:05 21. Effects of phytochemical composition on anti-inflammatory and antioxidant activities in cranberry fruit (*Vaccinium macrocarpon*) from different regions of the United States. L. Xue, C. Liu, H. Ma, N.P. Seeram, C.C. Neto

2:30 22. Chemical compositions of selected cold-pressed seed flour extracts and their health beneficial properties. U.E. Choe, Y. Li, L. Yu, B. Gao, T. Wang, J. Sun, P. Chen, M. Whent, L. Yu

2:55 Intermission.

3:10 23. Development of microfluidic "lab-on-a-chip" device and internet-of-things technique to rapidly detect antimicrobial-resistant pathogens in foods. L. Ma, X. Lu, K. Chou

3:35 24. Alkynyl silver modified chitosan as a novel antimicrobial coating material for food packages. L. Mei, Q. Wang

4:00 25. Mechanistic study of anti-obesity effect of polymethoxyflavones through their bioavailability, biotransformation and interaction with gut microbiota in vivo. M. Zhang, C. Ho, Q. Huang

4:25 Concluding Remarks.

Conv. Ctr. room 107A Section B

Food Authentication & Adulteration Detection

J. Harnly, Z. Xie, Organizers, Presiding

1:30 Introductory Remarks.

1:35 26. Tools to fight food fraud: Gap analysis. F. Ulberth

2:00 27. "O waiter, there's an oligosaccharide in my soup": Overview of the increasing use of oligosaccharides in economically motivated adulteration investigations. D. Jackson, M. Witkowski, T. Yi

2:25 28. Detection of undeclared sweeteners in steviol glycosides by LC/MS. T. Xu

2:50 29. Accredited targeted and non-targeted ¹H-NMR based methods for authenticity and quality control of food. E. Nascimento

3:15 Intermission.

3:25 30. Advancement of techniques for fruit juice authentication: Last barrier to prevent food fraud. Y. Hu, X. Lu

3:50 31. Authentication of coconut water. D.A. Krueger

4:15 32. Screening large sample sets for unusual samples: Method using 96-well plates to rapidly acquire fluorescence/absorbance spectra for chemometric analysis. F. Behringer

4:40 33. Detection of adulteration in botanical dietary supplements: Analytical strategies for routine product/ingredient quality control. H. You

5:05 34. Development of USP standards for cranberry dietary ingredients. M. Monagas

Conv. Ctr. room 110A Section C

Food Packaging Materials: Safety, Active Packaging & Sustainability Cospons. COMSCI, POLY, PMSE

J. L. Koontz, M. J. Morello, Organizers T. V. Duncan, X. Fan, J. W. Finley, T. Z. Jin, Organizers, Presiding

1:30 Introductory Remarks.

1:35 35. Development of nature-derived, biodegradable, non-toxic biopolymer-based fibers to enhance food safety and quality for food packaging applications. Z. Aytac, R. Huang, N. Vaze, T. Xu, L. MacQueen, H. Chang, M. Chan-Park, K. Parker, P. Demokritou

2:00 36. Electrospun nanoparticle/nanofiber composites (ENNCs) as structured adsorbents. B. Mu

2:25 37. Oxygen absorbers in active packaging: Sustainable approach to the core chemistry. M.R. Thatte

2:50 38. Muscle food preservation by active packaging based on oxygen scavengers. K. Candogan

3:15 Intermission.

3:35 39. Formulations of anti-browning and anti-*Listeria* coating to maintain freshness and microbial safety of fresh-cut apples. X. Fan

4:00 40. Development of an active antimicrobial tapioca material using selected small molecule compounds against *E.coli*, *Listeria* and *campylobacter* species. M. Pascall, Z. Wan, G. Rajashekara, J. Fuchs, E. Carcache de Blanco

4:25 41. Preparation of paper-based colorimetric indicator label and its application in precise fresh product freshness monitoring. G. Wang, S. Huang, H. Li, X. Liu

Green Polymer Chemistry: New Products, Processes & Applications Biobased Materials & their Preparation

Spons. POLY, Cospons. AGFD, CELL

Location: Loews Hotel Congress room C

SUNDAY EVENING 5:30 - 7:30pm

Conv. Ctr. Exhibit Hall D Section A

General Posters

F. Chen, L. Yu, Organizers

42. Total phenolic contents and free radical scavenging capacity of sunflower seed flour. B. Santoso, H. Childs, U.E. Choe, L. Yu

43. HS-SPME-GC/MS method development and validation for volatiles in California blue elderberries (*Sambucus nigra* ssp. *cerulea*). A.J. Reagan, A.E. Mitchell

44. Carbohydrate characterization in traditional Chinese medicine using rapid high-throughput mass spectrometry-based methods. Y. Chen, J.J. Castillo, E. Nandita, G. Couture, T. Vo, C.B. Lebrilla

45. Fate of acrolein, an effective agricultural biocide, over time. D.L. Brady, D.F. Shellhamer, C.L. Kissel

46. Analysis of electrolyzed water pretreatment and enzymatic hydrolysis of *Ganoderma* waste wood. F. Wu, Y. Miao, X. Zhang

47. Flux determination of urea cycle using stable isotopes and high resolution mass spectrometry. L. Ma

48. Effects of dynamic high pressure microfluidization treatment on carotenoids in sea buckthorn juice. J. Liu

49. Industrially translatable active packaging technologies to improve sustainable food systems. J.E. Herskovitz, J.M. Goddard

50. New method for pectin extraction from sunflower head residue. Z.K. Muhidinov, K. Ikromi, S.E. Kholov, A.S. Jonmurodov, L.S. Liu

51. Bacterial pathogen inactivation mechanism of the cationic food sanitizer. Y. Yegin, J. Oh, A. Castillo, M. Akbulut, M. Taylor

52. Extraction and characteristics of polysaccharide from peanut sediment of aqueous extraction process. J. Ye, R. Yang

53. Determination of select anionic herbicides, fungicides, disinfection byproducts, and perchlorate in homogenized food

- samples using ion chromatography coupled with electrospray ionization-mass spectrometry (IC-ESI-MS). T.T. Christison, J. Rohrer
54. Characterizing headspace volatile profiles of native, drought-tolerant California blue elderberry (*Sambucus nigra* ssp. *cerulea*). K. Uhl, A.E. Mitchell
55. Diet intervention in the gut microbiome: Considerations and challenges. C. Chen
56. Melamine and cyanuric acid in foodstuffs from the United States and their implications for human exposure. H. Zhu, K. Kannan
57. Development of antimicrobial films based on poly lactic acid enriched with ethyl lauroyl arginate (LAE) for food packaging applications. L. Ting, L. Zhao, Y. Wang, X. Wu, X. Liao
58. Scale-up of non-equilibrium pulsed discharge for sanitation of whole and cut fresh fruits and vegetables. G. Fridman
59. Cannabinoid analysis of hemp by ¹H qNMR: Effect of flower and leaf location on plant, field maturation profiling, decarboxylation trajectories, and finished product potency. C.D. McLoughlin, J.C. Edwards
60. Emulsifying properties of phospholipids extracted from Colombian cacao beans. D. Giraldo Davila, C. Blanco-Tirado, M.Y. Combariza
61. Plant and dairy proteins and their covalent interaction with flavor. V. Anantharamkrishnan, G.A. Reineccius
62. Characterization of high molecular weight polyphenols by FT-ICR-MALDI-MS and HPLC. S. Reeves, A.E. Hagerman
63. Development of novel nanostructured agrochemicals to enhance solubility and reduce. R. Jones, F. Darvas
64. Natural-flagella-templated Au nanowires and their neo-function as antimicrobial adjuvants. R. Du, Y. Qu, M. Zhao, Y. Liu
65. Coral reef organisms: Differential sensitivities to an agricultural pesticide. H.A. Davis, C. Woodley, L. May, A. Burnett, C. Miller, Z. Moffit
66. Correlation between antioxidant activity and structure characterization of pine nut peptides by pulsed electric field (PEF). S. Lin, S. Zhang
67. WITHDRAWN
68. Self-aggregation stability of several food pigments evaluated by aggregation in gradient polar solvents system. F. Li
69. WITHDRAWN
70. Water-in-water emulsion stabilized by β -lactoglobulin microgels. J. Zhang, Q. Wang
71. Nanoscale zeolitic imidazolate frameworks with curcumin loading for blue light response antibacterial. J. Su, J. Guang, X. Meng, L. Fang
72. Molecular structure, thermal stability, and chemical composition of β -lactoglobulin affected by dry-state heating with sugar beet pectin. P.X. Qi
73. Multiplex detection and identification of pathogens *Escherichia coli*, *Bacillus cereus*, *Clostridioides difficile*, and *Vibrio parahaemolyticus* using PCR high-resolution melt assays. A. Bender, J. Faulkner, K. Tulimieri, K. Elkins
74. Quercetin and p-coumaric acid derivatives in cranberry (*Vaccinium macrocarpon*) fruit vary in response to growing conditions and fruit rot-associated diseases. J. Shumila, X. Wang, S.S. Uppala, C.C. Neto
75. Characterization and analysis of curcumin extracted from turmeric using LC-MS and UV-Vis spectroscopy. C. Russo, A.M. Fedor
76. Comparative study of the phenolic contents and antioxidant capacities of green tea, ceremonial matcha, and culinary matcha. B. Meyer, E.D. Niemeyer
77. Novel high internal phase pickering emulsion (HIPPE) stabilized by nanoporous zirconium metal-organic framework (Zr-MOF). P. Ma, Q. Wang
78. Model development for aroma changes in wine following cation exchange treatments. J.J. Baratta, M. Kwasniewski
79. Synthesis and characterization of plasmonic nanoparticles. G. Quiroz, C. Conti III, G.F. Strouse
80. Cranberry product composition and its effect on the growth of gut bacteria. J.R. Turbitt, B. Benson, C.C. Neto, M. Silby, V. Bucci
81. Utilization of unconventional yeast strain, *Pichia kluyveri*, in production of low alcohol beers. H. Morris, D. Sarkar, K. Vander
82. Bioavailability of glyphosate in zea mays. C. Awuah, S. Azibere, J. Agyei-Ohemeng, I. Emahi
83. Development and evaluation of alkynyl silver substituted chitosan as an antimicrobial coating material. L. Mei, Q. Wang
84. Dextran coated phytyglycogen nanoparticles with enhanced gastrointestinal stability as oral delivery vehicles for various bioactives. J. Xue, Y. Luo
85. Characterization of flash extracted pectin from sunflower head residue treated with sodium chloride. A. Nasriddinov, K. Ikromi, I.B. Ismoilov, S.E. Kholov, Z.K. Muhidinov
86. Identification and quantification of strawberry anthocyanin metabolites in esophageal carcinoma patients. Y. Luo, R. Ma, T. Chen, F. Chen
87. Jasmine (*Jasminum grandiflorum* Linn.) flower extracts reduced tetradecanoylphorbol-acetate-induced mouse ear skin inflammation. X. Tang, H. Li, C. Liu, D. Li, H. Ma
88. Expanded method for the analysis of perfluorinated compounds in foods. D. Rawn, C. Menard, S. Feng
89. Pectin-protein formulation for drug and nutrient delivery. J. Bobokalonov, Z.K. Muhidinov, S. Usmanova, A. Nasriddinov, L.S. Liu
90. High efficiency production and simultaneous purification of lactulose from lactose isomerization through a novel sustainable anion extraction process. M. Wang, X. Zhu, Q. Xu, X. Hua, R. Yang
91. Phytochemical and compositional analysis of fresh and cooked Prickly Pear cactus (*Opuntia ficus-indica*), a Native American edible plant from Southern California. C. Dussell, Y. Hu
92. Cocoa mucilage as raw material for the production of cyclodextrins. M.F. Mercado-Villamizar, J.R. Pinzon
93. Cottonseed protein as wood adhesives: Use of promoters to enhance adhesive properties. H. Cheng, Z. He, M.K. Dowd, K.T. Klasson
94. Development of eggshell based calcium carbonate fertilizer. A. Ethridge, V.K. Rangari, S. Jeelani
95. Comparing vitamin E content in locally grown and commodity wheat. C. Lindenau, G. Smarra, J.J. Trout, E. Pollock
96. Phytochemicals in purslane (*Portulaca oleracea*). F. Al-Taher, N. Abshiru, B.V. Nemzer
97. Isolation and phytotoxic activity of a phytotoxin from *Botryosphaeria berengeriana* pear pathotype. H. Tomosaka, R. Suto, M. Takasu, M. Kudo, T. Nakamura, H. Koshino
98. Dominant microbial dynamics during Chinese horse bean-chili-paste fermentation, revealed by culture-dependent and culture-independent approaches. Y. Lu, L. Yang, Q. He
99. Sensory properties and consumer acceptance of mushroom-egg white blends. X. Du, A. Muniz, J. Sissons, M. Shanks
100. Acrylamide in coffee: Analysis of degree of roast, origin and preparation. E.R. Andrews, J.D. Kehlbeck, L. MacManus-Spencer

101. Improvement of green stability through intermolecular interactions between chlorophyll and starch. Y. Zhang
102. Low levels of surface active compounds for protection oxygen entrance in encapsulated flavors and unsaturated oils by spray drying. B. Paulo, I. Alvim, A. Prata
103. Characterization of natural biopolymer-emulsified solid lipid nanoparticles for encapsulation of curcumin: Effect of loading methods. J. Xue, Y. Luo
104. Comparisons of the amount of soluble ascorbic acid from the common citrus fruit peels: Grapefruit, lemon, lime, orange, and tangerine. A. Kim, A. Villano, C. Kim
105. Nitrite-scavenging activity of gallic acid as affected by various gastric conditions. Y. Wu, Q. Chen, Q. He
106. Determination of chemical composition of different edamame varieties grown in different locations. D. Yu, N. Lord, K. Sutton, J. Pollok, R. Carneiro, B. Zhang, T. Kuhar, S. Rideout, J. Ross, S. Duncan, Y. Yin, H. Huang
107. Efficiency of seeds' germination in pre-sowing irradiation by UV-light of different spectral composition. M. Marenych, A. Semenov, T. Sakhno, N. Barashkov
108. Assessment of neuroprotection effects of blueberries and characterization of bioactive compounds using liquid chromatography/mass spectrometry. P. Samani, S. Cai
109. Evaluation of different pre-processing techniques on ATR-FTIR spectroscopic fingerprints for detection of milk powder in fresh milk. W. Lu, B. Gao, L. Du, H. Sun, L. Yu
110. Curcumin combined with natural borneol protects human retinal pigment epithelial cells against blue light-induced cell death. J. Su, X. Meng, W. Wang
111. Optimized salt-assisted acetonitrile extraction of pesticide residues in human serum to improve recovery and quantitation limits. X. Yin
112. Papaya CpSBP1 regulates fruit softening and carotenoid accumulation by suppressing CpPME1/2 and CpPDS4. Y. Han, H. Mu, H. Gao, H. Chen, C. Fu
113. Robust quantification of acrylamide in food using gas chromatography-single quadrupole mass spectrometry. A. Ladak, J. Cooper, s. seethapathy, C. Cojocariu
114. WITHDRAWN
115. Preparation and characterization of hydrophobically modified biopolymers. H. Cheng, A. Biswas, S. Kim, R.F. Furtado, C.R. Alves
116. Mitigation effects of high methoxyl pectin on acrylamide formation in the Maillard model systems. S. Guoyu, F. Chen, Y. Liu, P. Wang, Y. Zhu, X. Hu
117. Effect of cold atmospheric plasma on nutraceutical content of broccoli sprouts and microgreens. A. Gilbert, R.V. Tikekar
118. WITHDRAWN
119. Multi-analytical method of pesticides from meat using LC/MSMS. H. Jo, K. Hwang, K. Jeong, H. Kim, J. Seon, T. Lee, J. Moon
120. Effect of mechanical stress on anthocyanin production in living mulberries. C.C. Philipp, A. Muldeney, F. Ngyuen
121. Health beneficial properties of pumpkin seed flour as a potential nutraceutical. A. Zhu, U.E. Choe, L. Yu
122. Phenolic-enriched maple syrup extract reduces oxidative stress in human keratinocytes HaCaT cells. C. Liu, S. Petrovas, H. Ma, N.P. Seeram
123. Role of roast on chemical characteristics of cold brew coffee. M. Grim, N.Z. Rao, M. Fuller
124. Preparation of hydrophilic D-borneol polymer based on acetal reaction and its antibacterial activity. J. Su, W. Wang, A. Yu, X. Meng
125. "O waiter, there's an oligosaccharide in my soup": Overview of the increasing use of oligosaccharides in economically motivated adulteration investigations. d. jackson, M. Witkowski, T. Yi
126. Microencapsulation technology applications for value added textiles. S. Chang, B.D. Condon, J. Smith
127. Efficacy of nanocarriers for dsRNA-induced RNAi in *Caenorhabditis elegans*. A.C. Hawk, S.S. Lichtenberg, J.M. Unrine
128. Outperform regulatory limits for five nitrosamine impurities in drug products and drug substances using GC-MS/MS. S. Dasgupta, L. Hansoge, V. Dhyani, S. Vyas, M. Churley
129. Novel sensor array for intelligent analysis and differentiation of pesticides based on the inhibition of multiple enzymes. H. Huang, J. Li, D. Song, S. Yan
130. Gas chromatography: Mass spectrometry combined with multivariate data analysis as a tool to differentiate processed orange juice samples based on their volatile markers. S. Bi, S. Sun, J. Wu
131. Chia seed flour as a potential functional food. H. Childs, B. Santoso, U.E. Choe, L. Yu
132. Allergen cross-contact due to the use of shared frying oil. L. Jackson
133. Chickpea protein hydrolysates produced by gastrointestinal enzymes and bromelain: Bitterness and antidiabetic potential. S. Chandrasekaran, D.A. Luna, E. Malach, Z. Hayouka, M. Niv, E.G. Demejia
134. Investigating the effects of oak spiral aging on beer ABV and IBU. N.O. Flynn
135. Vitamin B6 and curcumin co-treatment is superior to either agent alone in suppressing obesity-associated colorectal tumorigenesis in mice. X. Wu, G. Koh, J. Crott, J. Mason
136. Antioxidant potential of mung bean (*Vigna radiata*) albumin peptides produced by enzymatic hydrolysis and analyzed by biochemical and in silico methods. J. Kusumah, L. Real Hernandez, E.G. Demejia
137. Survey of pesticides use in commercial farms in Akwa Ibom, Nigeria and evaluation of potential risk factors. A.I. Inyangudoh, E. Inam, T. Arua, I. Udoekpo, C. Halsall, E. Ogwo
138. Understanding the effects of carboxymethyl cellulose on the antibacterial ability of lysozyme at different mass ratios and thermal treatment. Z. Li, Y. Luo
139. Home-based food preparation methods change the availability of health beneficial components in broccoli. U.E. Choe, L. Yu, M. Whent, L. Yu
140. WITHDRAWN
141. Comparison study between kale microgreen and mature kale: Bioactive components and biological efficacy. Z. Zhang, J. Wan, Q. Pham, Z. Liu, J. Sun, P. Chen, E. Turner, R. Peters, W.H. Yokoyama, H. Zeng, Y. Luo, L. Yu, T. Wang, J. Shi
142. WITHDRAWN
143. Solar distillation of essential oils from spices. A.N. Williams, D.J. Swartling
144. Potential Maillard reaction inhibitor and cytotoxicity of the adduct reacted with 5-HMF. J. Li, Z. Zhang, S. Yang, Y. Niu, L. Yu
145. Enhancing physicochemical stability and digestibility of DHA emulsions by encapsulation of DHA droplets in caseinate/alginate microparticles. D. Xu, N. Ma, Y. Cao, Q. Huang
146. Synthesis and characterization of alkylated caseinate, and its structure-curcumin loading property relationship in water. y. zhang, F. Yao, L. Yu
147. Tomato seed flour as potential value-added products. E. Bailoni, U.E. Choe, Y. Li, B. Gao, L. Yu
148. Metabolic profiling of sweet and hard apple ciders. S. Faone

149. EU compliant routine quantitative dioxin, dioxin-like compounds by GC-MS/MS with advanced electron ionisation source. A. Ladak, J. Cooper, C. Cojocariu, R. Tapper, R. law, A. Schaechtele
150. Design, synthesis and evaluation of oleanolic acid derivatives at C-3 position as antibacterial agents. H. He, H. Li, P. Wu, H. Ma
151. Evaluation of the effects of different oak chips on dark and light beer. K. Vander, D. Sarkar, H. Morris
152. Detection and speciation of arcobacter bacteria using Raman spectroscopy. Y. Chen, K. Wang, X. Lu
242. Quantification of analytes in beer using mid-range ATR-IR. M.D. Mosher, A. Campanella

MONDAY MORNING March 23

Conv. Ctr. room 102B Section A

Method Development for Complex Food Matrices:

Analytical & Statistical Considerations

S. Chakraborty, Organizer, Presiding

8:30 Introductory Remarks.

- 8:35 153. Validation and utility of a multiplex assay for the simultaneous detection of 15 food allergens plus gluten using xMAP[®] technology. E.A. Garber, C.Y. Cho, P. Rallabhandi, S. Macmahon, G.O. Noonan, K. Oliver
- 9:00 154. Carbohydrate analysis of agave syrup using HPAE-PAD in dual eluent generation cartridge mode. J. Hu, J. Rohrer
- 9:25 155. Few tenets for characterizing polar biomolecules and amino acids using hydrophilic interaction liquid chromatography with corona charge aerosol detection. S. Chakraborty, A. Becirovic, C. Akrong, M. Kalinowski, M. Phan, E. Abreu, A. Gould, K. Blascyk, T. Mione
- 9:50 156. Study on volatile compounds and their formation mechanism in the characteristic fingerprints of tricholoma matsutake singer in Changbai Mountain based on HS-GC-IMS and GC-MS-O. S. Lin, M. Li
- 10:15 157. Oxidative susceptibility of different lipid classes in dried scallop adductor muscle during storage. H. Xie, F. Yin, Z. Liu, Y. Hu, M. Yu, D. Zhou, B. Zhu
- 10:40 Intermission.
- 10:50 158. Improving toxic element detection limits in children's foods using a multivariate calibration approach. P.J. Gray
- 11:15 159. Identification of specialized phenolic metabolites in ash and white fringe tree phloem tissues against emerald ash borer using liquid chromatography-tandem mass spectrometry. A.T. Pilkons, A. Steele, A. Arango-Velez, C.E. Rutledge, S. Chakraborty
- 11:40 160. Inhibition pathway of acrylamide by glutathione in the Maillard reaction based on the simultaneous analysis of key precursors, intermediates, and products by ultra high-performance liquid chromatography tandem mass spectrometry. Y. Zhu, F. Chen
- 12:05 161. Ionic-liquid-stabilized fluorescent probe based on S-doped carbon dot-embedded covalent-organic frameworks for determination of histamine. D. Zhang, Y. Zhang, H. Liu

Conv. Ctr. room 107A Section B

Food Authentication & Adulteration Detection

J. Harnly, Z. Xie, Organizers, Presiding

8:30 Introductory Remarks.

- 8:35 162. Detection of colorants in spices by thin-layer chromatography and LC-MS. Z. Xie
- 9:00 163. Novel detection of adulteration and authentication of single-origin coffee beans using on-line selected-ion flow tube-mass spectrometry (SIFT-MS). H. Castada, S. Barringer

- 9:25 164. Comparison of UV-Vis spectroscopy and microtiter plate reader in chemometric quality assessment of extra virgin olive oils. W. Lu, B. Gao, H. He, H. Sun, L. Yu
- 9:50 165. Compositional profiles of commercial rice bran arabinoxylan products used for immune system activation. B.J. Savary, K. Takahashi
- 10:15 Intermission.
- 10:30 166. Identification of milk, pea, rice and soy protein by liquid chromatography with tandem mass spectrometry (LC/MS/MS). A. Liu, D. Taylor, S. Carter
- 10:55 167. Immunoassays for the detection of meat adulterants. Q. Rao
- 11:20 168. Amino acid fingerprint analysis in evaluation of authenticity of skim milk powder and whey protein products. S.D. Bhandari, Z. Xie
- 11:45 169. Stable isotopes verify geographical origin of Yak meat from Qinghai-Tibet Plateau. J. Nie, S. Shao, W. Xia, Z. Liu, C. Yu, J. Li, R. Li, W. Wang, Y. Yuan, K. Rogers

Conv. Ctr. room 110A Section C

Food Packaging Materials: Safety, Active Packaging & Sustainability Cospons. COMSCI, POLY, PMSE

T. V. Duncan, J. W. Finley, Organizers X. Fan, T. Z. Jin, J. L. Koontz, M. J. Morello, Organizers, Presiding

8:30 Introductory Remarks.

- 8:35 170. Reducing foodborne bacterial biofilms on produce and packaging with an engineered enzyme. H. Mayton, S.L. Walker, B. Berger
- 9:00 171. Active packaging materials and solutions that reduce food losses and waste. Z. Boz, C. Koelsch Sand
- 9:25 172. Natural polymer based electrospinning for active food packaging: Study of biopolymers from hempseed meal. Y. Wu
- 9:50 173. Novel gaseous chlorine dioxide generating method utilizing carbon dioxide and moisture respired from tomato for Salmonella inactivation. S. Zhou, C. Hu, G. Zhao, T.Z. Jin, S. Sheen, K. Yam
- 10:15 Intermission.
- 10:35 174. Visible-light-responsive graphitic carbon nitride/chitosan composite films for antimicrobial packaging. H. Shen, D. Shuai
- 11:00 175. New vegetable oil-based antimicrobial epoxy curing agents for packaging coatings. K. Huang, X. Fan, R. Ashby, H. Ngo
- 11:25 176. Incorporating curcumin grafted cellulose nanofiber into chitosan films with strong and high UV barrier properties. M. Guo

Green Polymer Chemistry: New Products, Processes & Applications Catalysts & Catalyzed Reactions

Spons. POLY, Cospons. AGFD, CELL

Location: Loews Hotel Congress room C

MONDAY AFTERNOON

Conv. Ctr. room 102B Section A

General Papers Bioactive Food Factors

F. Chen, L. Yu, Organizers, Presiding E. Choe, Presiding

1:30 Introductory Remarks.

- 1:35 177. Volatile organic compounds associated with abnormal tissue growth: Ovarian cancer. Y. Lee, J. Eades, J.L. Essler, C.M. Otto, C. Kehayias, A.T. Johnson, G. Preti
- 2:00 178. Phenolic compounds as antioxidants to improve oxidative stability of menhaden oil structured lipid as butterfat analog. S. Zhang, S.A. Willett, J.R. Hyatt, S. Martini, C.C. Akoh
- 2:25 179. Butein inhibits lipogenesis in Caenorhabditis elegans. R. Farias-Pereira, Z. Zhang, C. Park, K. Kim, Y. Park

2:50 180. Bamboo shavings derived O-acetyl-arabinoxylan alleviates loperamide-induced constipation in mice. J. Huang, Y. Zhang, Q. Wang, B. Lin, J. Li, X. Guan, Y. Zheng, H. Xiao
3:15 Intermission.
3:30 181. Effect of alkylresorcinols on the formation of N ϵ -(carboxymethyl) lysine and volatile flavour characterisation in wheat bread. Z. Yang, Y. Hao, Z. Wang, Y. Wang, Z. Wang, J. Liu, J. Wang
3:55 182. Neuroprotective effect of 5-heptadecylresorcinol against oxidative stress-induced mitochondria-mediated apoptosis in PC-12 cells. Y. Wang, Y. Hao, Z. Wang, Z. Yang, Z. Wang, B. Sun, J. Wang, J. Liu
4:20 183. Chemical composition of tetraploid *Gynostemma pentaphyllum* gypenosides and their suppression on inflammatory response by NF- κ B and MAPK pathways. B. Wang, y. zhang, x. sun, B. Gao, L. Yu
4:45 184. Enhancement of antioxidant activity of beta lactoglobulin from conjugation with gentisic acid polyphenol. H. Li, Y. Pan, Z. Yang, J. Rao, B. Chen

Conv. Ctr. room 107A Section B

Pectin Chemistry & Health

W. Chen, K. Davis, R. Gorshkova, A. T. Hotchkiss, Z. K. Muhidinov, Organizers L. Liu, Organizer, Presiding B. J. Savary, Presiding
1:30 185. Pectin conjugation improves the nanoliposomal stability and controlled release behavior with enhanced cellular uptake and antioxidant activity. W. CHEN, M. Shishir, N. Karim
2:00 186. Encapsulation and delivery via pectin hydrogel and emulsion. L. Wicker, B. Thirkield, Q. Sun
2:30 187. Crosslinking of polysaccharide by light or metal. Y. Ito
3:00 Intermission.
3:30 188. Pectin for steric stabilization of acidified yogurt drinks. C. Rolin
4:00 189. Effect of sucrose on the binding of low methoxyl pectin (citrus) to β -lactoglobulin. P.X. Qi, H.K. Chau, M.L. Fishman, A.T. Hotchkiss
4:30 190. Comparative characterization of *Aspergillus* pectin lyases by discriminative pectin degradation profiling analysis. B. Zeuner, T. Thomsen, M. Stringer, K. Krogh, A.S. Meyer, J. Holck

Conv. Ctr. room 110A Section C

Food Packaging Materials: Safety, Active Packaging & Sustainability Cospons. COMSCI, POLY, PMSE

X. Fan, T. Z. Jin, Organizers T. V. Duncan, J. W. Finley, J. L. Koontz, M. J. Morello, Organizers, Presiding
1:30 Introductory Remarks.
1:35 191. Food Contact Materials supply chain compliance and impact on food safety. N.H. Mady
2:00 192. Safety and regulatory compliance of plastic resins in the food packaging supply chain, a polymer manufacturer's perspective. J. Graham
2:25 193. Safety of food packaging materials: Converter's perspective. C. Mueller, E. Chervenkov
2:50 194. Managing non-intentionally added substances in the food packaging supply chain. J. Huang
3:15 Intermission.
3:35 195. Safety evaluation of food packaging materials: Regulatory overview of FDA's food contact substance notification (FCN) program. R. Brinas
4:00 196. What do we know about chemicals in food packaging materials? Y. Sapozhnikova
4:25 197. Managing the safety of food contact materials through preventive engineering approaches and innovation. O. Vitrac

4:50 198. DART-MS methods development & validation for WEEE signatures in food contact polymers. L.K. Ackerman, F. Puype, R. Paseiro-Cerrato, T. Todorov

Green Polymer Chemistry: New Products, Processes & Applications Advances in Polyesters
Spons. POLY, Cospons. AGFD, CELL
Location: Loews Hotel Congress room C

MONDAY EVENING 8:00 - 10:00pm

Conv. Ctr. Exhibit Hall A Section A

Sci-Mix

Y. Kim, L. Yu, Organizers
43, 44, 66, 69, 80, 90, 102, 106, 141, 152, 163, 175, 179, 223, 244, 246, 259, 262, 286. See previous & subsequent listings.

TUESDAY MORNING March 24

Conv. Ctr. room 102B Section A

General Papers Nutraceuticals & Functional Foods

F. Chen, L. Yu, Organizers, Presiding E. Choe, Presiding
8:30 199. Antioxidant properties of *Jatropha curcas* seed shell and kernel extract. X. Zhong, C. Lin, Y. Lin
8:55 200. Antioxidant capacities of pulp with peel and seed of jujube fruit. Y. Cheng, Y. Lin
9:20 201. Nutrient composition and effect of seed extracts of African black pear (*Darcryodes edulis*) on rats. H. Iyawe, V. Osagie, A. Esekheigbe, M.C. Azih
9:45 202. Protective effect of piceatannol against oxidative stress-induced apoptosis in ARPE-19 cells and its mechanism. Y. Hao, Y. Wang, Z. Wang, Z. Yang, Z. Wang, L. Yu, J. Liu, J. Wang
10:10 Intermission.
10:25 203. WITHDRAWN
10:50 204. Nutrient and toxic elements in seaweeds commercialized in the United States. T.I. Todorov
11:15 205. Alterations in the gut microbiome of wheat gluten allergic mice. C. Liu
11:40 206. Low doses of eriocitrin attenuate metabolic impairment of glucose and lipids in ongoing obesogenic diet in mice. J.A. Manthey, P. Ferreira, T.B. Cesar, M. Nery

Conv. Ctr. room 107A Section B

Pectin Chemistry & Health

W. Chen, R. Gorshkova, L. Liu, Z. K. Muhidinov, Organizers K. Davis, A. T. Hotchkiss, Organizers, Presiding
8:30 207. Pectic oligo- and polysaccharides: Basis for the creation of new medical composites. R. Gorshkova, D. Slobodova
9:00 208. Carbon fiber-based hemosorbents modified with pectic polysaccharides. S. Komiagin, R. Gorshkova, D. Slobodova
9:30 209. Surficial activity of ultrahigh methoxylated pectin and its potential application as dish detergent. X. Hua, J. Liu, J. Tan, M. Wang, R. Yang
10:00 Intermission.
10:30 210. Relationship between the structural properties of pectins and their potential to increase survival of probiotic bacteria at gastrointestinal stresses and to modulate the gut microbiota in a beneficial way. N. Larsen, C.B. de Souza, L. Krych, K.M. Hansen, A. Blennow, K. Venema, L. Jespersen
11:00 211. Application of pectin in food packaging. T.Z. Jin, L. Liu
11:30 212. Citrus pectin as an emulsifying wall component for microencapsulation of carvacrol. J. Bai, X. Sun, R.G. Cameron

Conv. Ctr. room 110A Section C

Food Packaging Materials: Safety, Active Packaging &

Sustainability Cospons. COMSCI, POLY, PMSE

X. Fan, T. Z. Jin, Organizers T. V. Duncan, J. W. Finley, J. L. Koontz, M. J. Morello, Organizers, Presiding

8:30 Introductory Remarks.

8:35 213. Incorporating more sustainable packaging materials with system solutions. C. Koelsch Sand, Z. Boz

9:00 214. Improving the sustainability and translatability of nonmigratory active packaging. J.E. Herskovitz, J.M. Goddard

9:25 215. Functional nanofiller: Gateway to tunable permeability, mechanical strength, and headspace manipulation. B. Zhang

9:50 216. Development of packaging material for high pressure processed food. X. Wu, L. Zhao, Y. Wang, X. Liao

10:15 Intermission.

10:35 217. Ent-abietane diterpenoid from the North American plant *Stenotus armerioides* inhibits the growth of the foodborne pathogen *Listeria monocytogenes*. Y. Liu, J.A. Clement, S.R. Park, F. Zhang, Z. Huang

11:00 218. Safety and endocrine disruption potentials of low exposures of thymol and carvacrol. C. Wu, X. Zhang, Y. Peng

11:25 219. Application of GCxGC-TOF MS/FID as a powerful tool for routine and confirmatory analysis of mineral oil contamination in food. G. Purcaro, J. Binkley

Green Polymer Chemistry: New Products, Processes &

Applications Polymer Degradation & Recycling

Spons. POLY, Cospons. AGFD, CELL

Location: Loews Hotel Congress room C

TUESDAY AFTERNOON

Conv. Ctr. room 102B Section A

General Papers Food Safety Chemistry

F. Chen, L. Yu, Organizers, Presiding E. Choe, Presiding

1:30 220. Oil oxidation and the formation of acrylamide, 5-hydroxymethylfurfural and 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine in model reaction systems during frying. F. Chen

1:55 221. Toxic effects and comparative proteomic analysis of 3-MCPD 1-monoleate and 3-MCPD 1-monostearate in a 90-day semi-long term toxicity study using Sprague-Dawley rat. P. Yang, L. Yu, Y. Zhang, B. Gao

2:20 222. Routine analysis of polar pesticides in water at low ng/L levels by ion chromatography coupled to triple quadrupole mass spectrometer. C. Shevlin, K. Bousova, J. Beck, F. Schoutsen

2:45 223. Antimicrobial activity of medium chain fatty acid amides and their potential application as food preservatives. H. Yosief

3:10 Intermission.

3:25 224. Novel chemical formulation to clean external debris from cattle carcass ensuring meat safety and animal byproduct quality. M. Sarker, H. Yosief, C. Liu, N. Latona

3:50 225. Novel synthetic approach of 2-monochloropropanol fatty acid esters and the determination of their acute oral toxicities in Swiss mice. Z. Zhang, P. Yang, B. Gao, L. Yu

4:15 226. Effect of curcumin on the quality properties of millet fresh noodle and its inhibitory mechanism against the isolated spoilage bacteria. Y. Jia, Z. Wang, M. Zhang

4:40 227. Dietary supplement ingredient database (DSID-4): Certified reference materials and in-house controls as vital tools for data quality control. S. Savarala, K. Andrews, p. Dang, P. Gusev, L. Oh, R. Bautista, P. Pehrsson, J. Dwyer, A. Kuszak, R. Costello, L. Saldanha

Conv. Ctr. room 107A Section B

Pectin Chemistry & Health

K. Davis, R. Gorshkova, A. T. Hotchkiss, L. Liu, Organizers

W. Chen, Z. K. Muhidinov, Organizers, Presiding

1:30 228. Comparative analysis of changes to the human gut microbiota community that occur in response to pectins with variable degrees of esterification. J. Firman, L.S. Liu, R. Gadaingan

2:00 229. Differential effects of dietary fibers on gut microbiome. H. Yadav, R. Mainali, S. Ahmadi, R. Nagpal, S. Wang

2:30 230. Innate immune response by intestinal epithelial cells to rice bran arabinoxylan compositions. B.J. Savary, A. Flory, K. Takahashi, N. Zhang, J. Xu, S. Lee

3:00 231. Sugar beet fiber polysaccharide bioactive properties. A.T. Hotchkiss, P.X. Qi, L. Liu, H. Chau, P. Cooke, A. Nunez, A. White, M.L. Fishman

3:30 Intermission.

4:00 232. Pectin research in the Eastern Regional Research Center: Role of Dr. Marshall Fishman. L. Liu, A.T. Hotchkiss

Conv. Ctr. room 110A Section C

Nanoencapsulation & Delivery of Bioactive Food

Ingredients Using Food Biopolymers Protein-Based Delivery systems

Q. Huang, Q. Wang, Organizers, Presiding

1:30 Introductory Remarks.

1:35 233. Self-assembled plant protein microgels and microcapsules for delivery of bioactive food ingredients. T. Nicolai, N. Chen, C. Chassenieux

2:15 234. Influence of enzymatic hydrolysis on the drug delivery capacity of dry bean proteins. Y. Zhang

2:40 235. Oat protein based nanoparticles as delivery vehicle of resveratrol for improve bioavailability in vitro and in vivo. L. Chen, C. Yang, Z. Tian

3:05 Intermission.

3:25 236. Stabilization and application of water-in-water emulsion by addition of β -lactoglobulin microgels. J. Zhang, Q. Wang

3:50 237. Gelatin-based nanofibers by emulsion electrospinning: Novel nanoencapsulation approach for bioactive compounds. C. Zhang, H. Zhang

4:15 238. Modulation of bioaccessibility and cellular uptake of β -carotene using scallop (*Patinopecten yessoensis*) gonad protein isolates: Effects of carrier oil and colloidal delivery systems. J. Han, H. Wu, B. Zhu, H. Xiao

Green Polymer Chemistry: New Products, Processes &

Applications Oil- & Lignin-Containing Materials

Spons. POLY, Cospons. AGFD, CELL

Location: Loews Hotel Congress room C

TUESDAY EVENING

Green Polymer Chemistry: New Products, Processes &

Applications Spons. POLY, Cospons. AGFD

Location Conv. Ctr. Exhibit Hall A

WEDNESDAY MORNING March 25

Conv. Ctr. room 102B Section A

General Papers Detection Methods for Food Systems

L. Yu, Organizer F. Chen, Organizer, Presiding

E. Choe, X. Sun, Presiding

8:30 239. Detection of ripeness and off-odor through volatile organic compounds profile using novel chromogenic paper sensor array. Z. Teng, Y. Luo, B. Zhou, B. Zhang, Q. Wang

8:55 240. Analysis of the interaction mechanism of proanthocyanidins with β -casein. X. Sun, G. Ma

9:20 241. Rapid genotypic antibiotic susceptibility test using CRISPR-Cas12a in food system. J. Chen
 9:45 242. (withdrawal (see poster)
 10:10 Intermission.
 10:25 243. Sensory properties, volatiles, and non-volatiles using quantitative descriptive analysis and flavor instrumental analysis of ten strawberries grown in Texas. X. Du, G. Scott, C. Williams, R.W. Wallace
 10:50 244. Characterization of moisture migration of beef during freezing storage by low-field NMR and MRI. S. Cheng, X. Wang, H. Yang, R. Lin, M. Tan
 11:15 245. Untargeted metabolomics analysis of a novel plant-activator in cucumber and hydrolysis metabolic mechanism research. L. Han, S. Song, C. Qiao, Y. Bi, H. Xie, R. Pang
 11:40 246. Molarity crisis: Third of scientists may be making molar solutions incorrectly. R.D. Calvert, C.A. Running

Conv. Ctr. room 107A Section B

Pectin Chemistry & Health

W. Chen, K. Davis, A. T. Hotchkiss, Z. K. Muhidinov, Organizers R. Gorshkova, L. Liu, Organizers, Presiding
 8:30 247. Pectic hydrocolloids from steam explosion of citrus peel: Structure, function and applications. R.G. Cameron, C. Dorado, Y. Kim, E. Branca, W. Zhao
 9:00 248. Synergistic modification of pectin using microfluidization and ultrasound for enhanced emulsification and encapsulation properties. Y. Feng, W. Wang, Y. Yin
 9:30 249. Principles of green chemistry in pectin production. D. Slobodova, R. Gorshkova
 10:00 Intermission.
 10:30 250. Innovative technologies for pectin production. Z.K. Muhidinov, K. Ikromi, M.H. Rahmonov, M.L. Fishman, L.S. Liu
 11:00 251. Huanglongbing disease and quality of pectin and fruit juice extracted from Valencia oranges. B.E. Morales, J. Koh, M. Inés Guerra-Rosas, E. Osorio-Hernández, C. Culvers, J. Morales-Castro, L. Wicker
 11:30 252. NMR analyses of pectins. G.D. Strahan, A.T. Hotchkiss, Z.K. Muhidinov, J. Bobokalonov, L.S. Liu

Conv. Ctr. room 110A Section C

Nanoencapsulation & Delivery of Bioactive Food

Ingredients Using Food Biopolymers
 Emulsion-Based Delivery Systems
 Q. Huang, Q. Wang, Organizers, Presiding
 8:30 253. Engineering novel walnut-based high internal oil phase Pickering emulsions. Q. Liu, Q. Huang
 8:55 254. Sustained release of flavor in breast milk with delivery of IgG through W/O/W two-phase emulsion. C. Chen, G. Chen, D. Chen, Y. Peng, T. Li, X. Kan, Y. Sun, X. Zeng
 9:20 255. Nano/Submicrometer milled red rice particle-stabilized Pickering emulsions and their antioxidative properties. X. Lu, Q. Huang
 9:45 Intermission.
 10:05 256. Co-delivery of EGCG and lycopene by Pickering double emulsion for the enhanced stability and synergistic hypolipidemic effect. J. Xiao, L. Wang
 10:30 257. Distributions and antioxidant efficiency of catechins in model food oil-in-water emulsions: Application of the pseudophase kinetic model. L. CHEGN, Q. Huang
 10:55 258. Improving oxidative stability and release behavior of DHA algae oil by microencapsulation. L. Song, J. Fu, D. Zhou, B. Zhu

Green Polymer Chemistry: New Products, Processes &

Applications Peptides, Proteins & Polyimides
 Spons. POLY, Cospons. AGFD, CELL
 Location: Loews Hotel Congress room C

WEDNESDAY AFTERNOON

Conv. Ctr. room 102B Section A

General Papers Nanotechnology

L. Yu, Organizer F. Chen, Organizer, Presiding
 X. Du, Presiding
 1:30 259. Development of silver-grain protein particles that display larvicidal activity in *Culex quinquefasciatus* mosquitoes. A.E. Norton, R. Ewing, M. Tilley, L. Cohnstaedt
 1:55 260. Antimicrobial bio-nanomachines to controlling plant pathogenic bacteria. L.A. Lightbourn
 2:20 261. Silver nanoparticles affects germination and growth of crop plant. H. Deng, S. Budhani, N.P. Egboluche, Z. Arslan, H. Yu
 2:45 262. Utilization of nanocellulose from cotton agricultural residues: Materials and applications. J.H. Jordan, M.W. Easson, H. Cheng, B.D. Condon
 3:10 Intermission.
 3:25 263. MnO₂ nanoparticle modulated molecular responses in salt-stressed *Capsicum annuum* L. during the priming process. Y. Ye, J.L. Gardea-Torresdey
 3:50 264. MiR-27a-5p regulates mitochondrial dysfunction and intrinsic apoptosis induced by Acrylamide via targeting Btf3. L. Zhang, F. Chen, L. Yang, L. Dong
 4:15 265. Foodborne fluorescent carbon dots from baked lamb: Characterization and potential health risk. H. Wang, L. Zhang, M. Tan
 4:40 266. IPN (interpenetrating polymer network) hydrogels composed by soluble dietary fibers and their applications in foods. H. Fang, M. Gu, Y. Niu, L. Yu

Conv. Ctr. room 107A Section B

Advances in Sensory Evaluation

R. Trout, Organizer M. H. Tunick, Organizer, Presiding
 1:30 Introductory Remarks.
 1:35 267. Foods in the future: Need for high quality in sensory aspects but also in food safety aspects. M. Granvogl
 2:15 268. Managing your portfolio of ingredients: How sensory evaluation can be leveraged to yield significant returns. G.V. Cville, A. Krogmann
 2:55 269. Understanding sensates: Lessons learned from over 25 years of sensory research. A. Krogmann, G.V. Cville, E. Toronto Doyle
 3:35 Intermission.
 3:50 270. Rapid throughput taste discrimination technology: Applications of the TāStation® to food and beverage, flavor ingredient, and pharmaceutical formulation development. R.K. Palmer
 4:20 271. HPLC method calibrated with organoleptic data to evaluate rancidity in food oils. D.M. Sriyathne, M.J. Calandra, Y. Wang

Conv. Ctr. room 110A Section C

Nanoencapsulation & Delivery of Bioactive Food

Ingredients Using Food Biopolymers
 Nanoparticles Based Delivery Systems
 Q. Huang, Q. Wang, Organizers, Presiding
 1:30 Introductory Remarks.
 1:35 272. Acylation and tannic acid crosslinking improve the functional properties of phytylglycogen nanoparticles as a nanoscale carrier for bioactive compounds. Y. Luo, J. Xue
 2:00 273. Procyanidins-loaded gelatin-sodium alginate complex coacervates induced by calcium ions: Structure and characterization. M. Tan, S. Tie
 2:25 274. Structure, assembly, and applications of peanut oleosin particles. Y. Pan
 2:50 Intermission.

3:10 275. Improving uptake and bioactivities of theaflavin-3,3'-digallate using caseinophosphopeptides/chitosan nanoparticles-based delivery systems. T. Zheng
 3:35 276. Microencapsulation of industrial hemp oil using pea protein isolate-sugar beet pectin complex coacervates. J. Rao
 4:00 277. Preparation, characterization and evaluation of biopolymer complex nanoparticles for delivery of astaxanthin. E. Fleming, Q. Hu, Y. Luo

Green Polymer Chemistry: New Products, Processes & Applications Polysaccharides & Related Materials
 Spons. POLY, Cospons. AGFD, CELL
 Location: Loews Hotel Congress room C

THURSDAY MORNING March 26

Conv. Ctr. room 102B Section A

General Papers Food Processing Chemistry

L. Yu, Organizer F. Chen, Organizer, Presiding
 H.H., Presiding

8:30 278. Butylparaben improves the thermal inactivation rate of *Escherichia coli* O157:H7 in low-moisture foods. Q. Ding, C. Ge, R.C. Baker, R.L. Buchanan, R.V. Tikekar
 8:50 279. Effects of potato processing and frying on oxidized fatty acid concentrations. Z. Zhang, M. Hennebelle, S. Emami, A. Taha
 9:10 280. Influence of almond pasteurization on rancidity in almonds. K. Luo, A.E. Mitchell
 9:30 281. Rice bran oil and oil bodies extraction using aqueous enzymatic extraction: Physicochemical characterization of oil and structure of oil bodies. D. Xu, Q. Gao, J. Hao, M. Zhang, Y. Cao, Q. Huang
 9:50 282. Fungicidal constituents from phytopathogens. K.M. Meepagala, C.M. Anderson
 10:10 Intermission.
 10:25 283. Laccase mimicking nanozymes and their applications in food analysis and food processing. H. Huang, L. Lei, J. Bai, M. Li
 10:45 284. Rheological studies of colloidal microcrystalline cellulose and its application in agriculture formulations. H.S. Yang, S. Foertsch, H.P. Bertrand
 11:05 285. Studies on the effect of processing method on loss of nutrients in some grains and legumes. M.C. Azih
 11:25 286. Role of common beans *Phaseolus vulgaris* in modulating lipid digestion: Impact of food processing. T. Lin, S.F. Okeefe, S. Duncan, C. Fernandez Fraguas
 11:45 287. 2-oxoacids can prevent rancidification of food oils. M.J. Calandra, D. Sriyathne, Y. Wang
 12:05 288. Isolation of antifungal secondary metabolites from roots of *Helietta parvifolia*. A.K. Bracken, K.M. Meepagala

Conv. Ctr. room 105A Section B

Advances in Sensory Evaluation

M. H. Tunick, Organizer R. Trout, Organizer, Presiding

8:30 289. Using university students in sensory studies. M.H. Tunick
 9:00 290. Sensory evaluation of ice cream using a diverse population of university students from two universities, one in an urban setting and one in a rural setting. J.J. Trout, R. Trout
 9:30 291. Throat pungency: More or less with repeated exposure. C. Peyrot des Gachons, L. Slade, G.K. Beauchamp
 10:00 Intermission.
 10:15 292. Can we control ourselves after we have eaten our vegetables? Sensory evaluation and consumer acceptance of plant forward dishes and desserts in a natural consumption setting. M. Spencer, P. Dalton
 10:45 293. Application of sensory evaluation in flavor analysis of raw milk. Y. Huang, M. Bao, W. Liu, Y. Fei, D. Zhang, W. Yu
 11:15 294. Characterization and comparison of key aroma compounds in raw and cooked peas (*Pisum sativum* L.) by application of gas chromatography-olfactometry (GC-O), quantitative measurements, odor activity value (OAV) and omission experiments. S. Bi, J. Wu

Conv. Ctr. room 108B Section C

Nanoencapsulation & Delivery of Bioactive Food

Ingredients Using Food Biopolymers Other Delivery Systems

Q. Huang, Q. Wang, Organizers, Presiding
 8:30 295. Functional and engineered colloids from edible materials. A. Patel
 8:55 296. Headspace manipulation via metal-organic-framework (MOF): Promising strategies in addressing food safety and food waste challenges. B. Zhang
 9:20 297. Assessment of oral bioavailability and biotransformation of nobletin emulsion using in vitro and in vivo model. M. Zhang, G. Huang, J. Zhu, C. Ho, Q. Huang
 9:45 Intermission.
 10:05 298. Development of curcumin loaded high internal phase Pickering emulsion using zirconium metal-organic framework. P. Ma, Q. Wang
 10:30 299. Calcium delivery system assembled by sea cucumber ovum peptide and its calcium bioavailability study. N. Sun, P. Cui, D. Wang, Y. Wang, T. Wang, S. Lin
 10:55 300. Assembly of ovotransferrin nanofibrils for nutraceutical delivery. Q. Huang, Z. Wei

Green Polymer Chemistry: New Products, Processes & Applications Novel Polymers Spons. POLY, Cospons. AGFD, CELL Location: Loews Hotel Congress room C

THURSDAY AFTERNOON

Green Polymer Chemistry: New Products, Processes & Applications Additive Manufacturing & Advanced Processes
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Schedule of AGFD Technical, Business, Planning, and Social Activities

Sun 12:00-1:00pm
Sun 1:30 -4:30pm
Sun 5:30-7:30pm
Sun 5:30-7:30pm
Mon 12:00-1:00pm
Mon 5:30-8:00pm
Mon 8:00-10:00pm
Tue 6:00-8:00pm

Special Topics (tentative)
Withycombe-Charalambous Symposium
AGFD General Posters/Reception
Undergraduate Poster Competition
Future Programs
Executive Committee Meeting
Sci-Mix
AGFD Annual Reception

Convention Center Room 102B
Convention Center Room 102B
Convention Center Hall D
Convention Center Hall D
Convention Center Room 102B
Marriott Downtown (1200 Filbert St): Franklin 3/4
Convention Center – Hall A
The Study at University City (directions on cover)