AOAC

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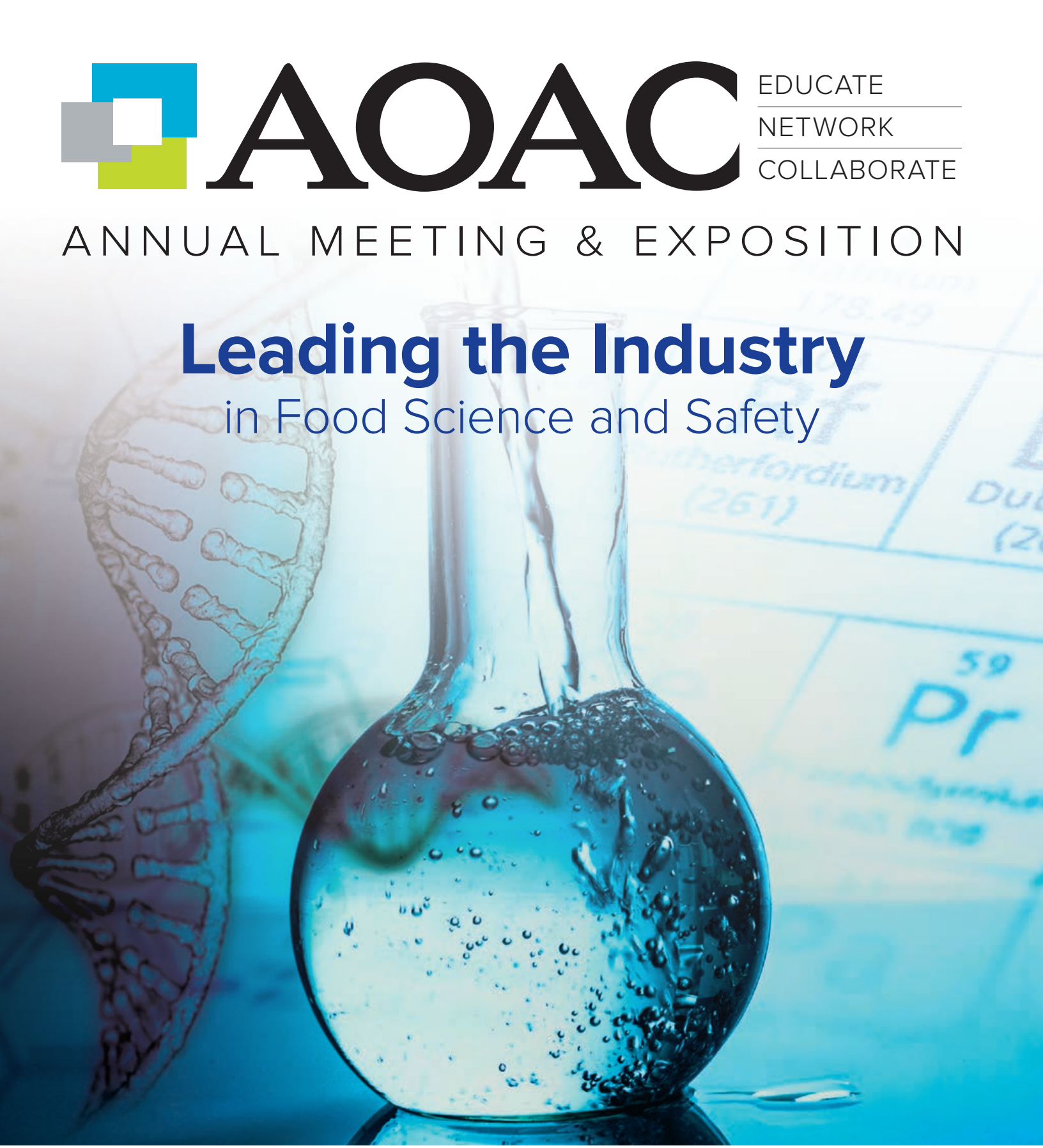
ANNUAL MEETING & EXPOSITION

Leading the Industry
in Food Science and Safety



Preliminary Program

129th Annual Meeting & Exposition

September 27–30, 2015, Los Angeles, California

AOAC INTERNATIONAL

The Scientific Association Dedicated to Analytical Excellence®

AOAC

EDUCATE
NETWORK
COLLABORATE

ANNUAL MEETING & EXPOSITION

AOAC INTERNATIONAL is a non-profit scientific association dedicated to the development and validation of analytical methods, improvement of quality assurance procedures in laboratories, and the professional development of scientists. Since its founding in 1884, AOAC has evolved from a group of scientists within the U.S. federal government into an independent association of over 3,000 analytical chemists, microbiologists, and other scientists engaged in a wide range of positions in industry, government, and academic laboratories around the world.

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WHY ATTEND THE 129th AOAC ANNUAL MEETING?

The greatest minds, talent, innovations, and solutions for methods based science can be found at the **AOAC INTERNATIONAL Annual Meeting & Exposition**. This once a year event is unlike any other you will attend within the industry.

EDUCATE. NETWORK. COLLABORATE.

The **AOAC Annual Meeting & Exposition** are the epitome of those three words. AOAC and the standards-based scientific community have evolved. Your professional society, and industry advocate (AOAC) has repositioned itself to be prepared for the future. The future of AOAC is to provide solutions and to take on the global goal within our community to advance science by establishing standards, and approving more methods FASTER… so that our member companies, our individual scientist members, and all others associated with the methods process can experience the reality of their work. The **AOAC Annual Meeting & Exposition** is the one source where the industry gathers to learn and collaborate on the past, present, and future, of science and the business of analytic scientific evaluation.

For 2015, the **AOAC Annual Meeting & Exposition** has lined up an outstanding program. Scientific sessions are based on member input and feedback from past annual meetings so we are pleased to bring you what we feel is the most relevant and impactful lineup of sessions and poster presentations we have offered to date. For the exposition portion of the Annual Meeting we are very proud of the lineup of exhibitors we have available for you to meet with, learn about their products and services, and collaborate with to stay on top of the most cutting-edge trends and innovations within our industry. The international representation of science in attendance is the most impressive to date.

Whether you are a long time **AOAC Annual Meeting** attendee or an industry professional curious and interested what AOAC is all about and wondering where a relationship with the organization might fit into your professional agenda, we invite you to attend and experience the **2015 Annual Meeting & Exposition**. We are confident your attendance will be considered time well spent.

The best minds, talent, innovations, and solutions sharing a common goal. To approve, establish global standards, and advance science.

REGISTER TODAY TO SHARE IN THE EXPERIENCE!

ACKNOWLEDGMENTS

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AOAC wishes to express its sincere thanks to the members of the Technical Programming Council for their efforts in developing and coordinating the technical program for this year's Annual Meeting.

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Welcome from the President of AOAC INTERNATIONAL

Erik Konings

On behalf of the entire Board of Directors and staff of AOAC INTRNATIONAL, I am pleased to welcome you to the 129th Annual Meeting and Exposition in Los Angeles, California.

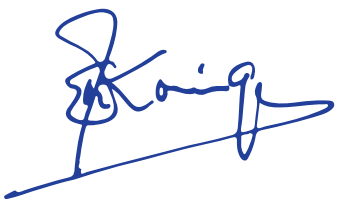
As AOAC continues to empower industry, government, and academia in setting global standards through stakeholder consensus-building activities be sure to check out the many valuable opportunities to educate, network and collaborate. The schedule is filled with high-level standards development activities (stakeholder panels, working groups, and expert review panels), community meetings, symposia, poster presentations and networking events. AOAC is honored to announce this year's keynote speaker, Dr. Richard Stadler, Group Expert Chemical Food Safety at Nestec SA (Switzerland). He is in corporate quality management supporting the Nestlé Quality Assurance Centers (NQAC). His research spans more than 25 years investigating chemistry and bioactivity of foods and food constituents. In his keynote he will elaborate on the needs and challenges of analytical methods to verify food safety and integrity from an industry perspective.

This year's Wiley Award winner, Dr. Joe Boison, Senior Research Scientist & Research Coordinator at the Canadian Food Inspection Agency, and adjunct professor at the University of Saskatchewan, will reflect on almost 30 years of research on toxicology, kinetics, MRL, and detection methodology of multi-class and multi-kinds of drugs in food animal products. Two of his main innovations related to several pivotal studies on penicillin G residues in edible animal tissues, and a series of studies on olaquindox, carbadox and related compounds which were the basis for risk assessment with subsequent recommendations on use to protect human health.

The quality of the technical program at AOAC's Annual Meeting is renowned and this year is no exception. Thanks to the meeting sponsors, partners and exhibitors, the Exhibit Hall will feature a highly impressive display of the latest technological developments and services to help you with your analytical needs.

I invite you to take full advantage of all outstanding opportunities that the AOAC Annual Meeting has to offer. Learn about new research, share your findings, hear from a variety of experts in your field, network with colleagues, and much more. Please join me at the Exhibit Hall Grand Opening and President's Welcome Reception on Sunday evening to kick off what is sure to be another outstanding AOAC Annual Meeting and Exposition.

Erik Konings



President, AOAC INTERNATIONAL

SCHEDULE AT A GLANCE

SATURDAY, SEPTEMBER 26, 2015

9:00am–5:00pm	Registration Open

SUNDAY, SEPTEMBER 27, 2015

7:30am–7:30pm	Registration Open
1:00pm–4:30pm	Scientific Session: Analytical Approaches to Assess Food Authenticity, or, Are You Eating What You Think You Are?
1:00pm–4:30pm	TDLM Training Session: Method Development Done Right so Method Validation is Light
1:00pm–6:00pm	Expert Review Panel – Microbiology Methods
6:30pm–9:30pm	Exhibit Hall Grand Opening & President's Welcome Reception

MONDAY, SEPTEMBER 28, 2015

7:00am–8:00am	TDRM Executive Committee Meeting
7:30am–5:00pm	Registration Open
8:00am–8:30am	Exhibitor Presentation: SCIEX
8:15am–10:15am	AOAC INTERNATIONAL Board of Directors Meeting
9:00am–9:30am	Exhibitor Presentation: ANKOM Technology
9:15am–10:15am	Latin America Section Business Meeting
10:00am–10:30am	Exhibitor/Partner Presentation: Pickering Laboratories
10:00am–10:30am	Continental Breakfast
10:30am–12:00pm	Keynote Address and Awards Ceremony
12:00pm–1:00pm	Poster Author Presentations
12:00pm–5:00pm	Poster Presentations: Detection and Measurement of Natural Toxins, Food Nutrition and Food Allergens, and General Methods, Quality Assurance and Accreditation
12:00pm–5:00pm	Exhibit Hall Open
12:15pm–12:45pm	Exhibitor Presentation: Phenomenex
1:00pm–1:30pm	H.W. Wiley Award Address
1:30pm–3:00pm	Wiley Award Symposium: Innovative Approaches to the Analysis of Veterinary Drugs and Chemical Contaminants in Foods
1:30pm–3:00pm	Symposium: Rapid Methods for Chemical Contamination – Cell Based Assay, Spectroscopy, Portable Devices and Beyond
1:30pm–3:00pm	Symposium: Norovirus Detection in Foods – Current Status and Roadmap to Future Validated Methods
1:30pm–7:30pm	Expert Review Panel – Fertilizer Methods
3:00pm–3:30pm	Refreshment Break
3:00pm–3:30pm	Exhibitor Presentation: Thomson Instrument Company
3:30pm–5:00pm	Symposium: Hot Topics in Cosmetics and Color Additives
3:30pm–5:00pm	Symposium: Analysis of Metals and Metals Speciation in Food
3:30pm–5:00pm	Symposium: Regulatory Microbiological Criteria and Rapid Food Micro Methods – The European Playground
5:00pm–5:30pm	Exhibitor Presentation: bioMérieux, Inc.
5:00pm–6:30pm	New Member Welcoming Reception
5:00pm–6:30pm	ALACC Meeting
5:00pm–7:00pm	Chemical Contaminants and Residues in Food Community Meeting
5:00pm–7:00pm	Cosmetic and Color Additives Meeting
5:00pm–7:30pm	Marine and Freshwater Toxins Community Meeting
6:00pm–7:00pm	Taiwan Section Business Meeting
6:00pm–7:00pm	Japan Section Business Meeting
6:30pm–7:30pm	Reception for TDLM Members, co-sponsored by Microbiologics
6:30pm–7:30pm	Central Section Business Meeting
7:00pm–8:00pm	Joint Asian Sections Business Meeting

TUESDAY, SEPTEMBER 29, 2015

7:15am–8:15am	Exhibitor/Partner Presentation: Waters Corporation
7:30am–5:00pm	Registration Open
7:45am–8:15am	Refreshment Break
8:15am–9:45am	Symposium: Oral Posters from Dietary Supplements and Botanicals
8:15am–9:45am	Symposium: The Current Impact of Mycotoxins on Food and Dietary Supplement Safety
8:15am–9:45am	Symposium: Practical Issues Arising from Statistical Design and Analysis of Method Validation Studies
8:30am–7:00pm	SPIFAN Expert Review Panel
9:00am–11:00am	Water/Wastewater Community Meeting
9:45am–10:15am	Partner Presentation: Covance Laboratories
10:00am–10:30am	Refreshment Break
10:00am–12:00pm	Committee on Statistics Meeting
10:00am–5:00pm	Poster Presentations: Analysis of Foodborne Contaminants and Residues, Authenticity, Cosmetics and Color Additives, Emerging Issues in Food Safety and Security, and Microbiological Methods
10:00am–5:00pm	Exhibit Hall Open
10:15am–11:45am	Symposium: Use of CRMs and/or RMs in Method Validation and Maintaining Accreditation According to ISO 17025
10:15am–11:45am	Symposium: New Blood 2015: Developing Methods for the Detection of Chemical Analytes and Contaminants
10:15am–11:45am	Symposium: Food Allergens – Quo Vadis?

SCHEDULE AT A GLANCE

11:45am–1:15pm	Contaminants Subgroup Meeting – Veterinary Drugs
12:00pm–1:00pm	Poster Author Presentations
12:00pm–1:00pm	Exhibitor/Partner Presentation: Agilent Technologies
12:30pm–2:30pm	Committee on Sections Meeting
1:00pm–1:30pm	Exhibitor/Partner Presentation: Thermo Scientific
1:00pm–2:30pm	Agricultural Materials Community Meeting
1:00pm–3:00pm	AOAC Research Institute Advisory Council Meeting
1:30pm–2:30pm	TDLM Executive Committee Meeting
1:30pm–3:00pm	Contaminants Subgroup Meeting – Metals
2:00pm–2:30pm	Exhibitor/Partner Presentation: Shimadzu Scientific Instruments
2:00pm–2:30pm	Refreshment Break
3:00pm–4:30pm	TDRM Workshop: How do I Set up a Proper Inter Laboratory Comparison with Testing Materials that I Have Prepared Myself?
3:00pm–4:30pm	Symposium: Genomics: It's HERE, Now What Do We Do with It?
3:00pm–4:30pm	Symposium: Gluten Measurement Variation – Sampling, Subsampling and Analysis
4:30pm–5:00pm	Exhibitor Presentation: Horizon Technology Inc.
4:30pm–6:00pm	Membership Committee Meeting
4:30pm–6:00pm	Contaminants Subgroup Meeting – Environmental and Emerging Contaminants
4:30pm–7:30pm	Editorial Board Meeting
4:30pm–7:30pm	Mycotoxin Community Meeting
4:45pm–6:45pm	Food Allergen Community Meeting
5:00pm–6:00pm	TDRM Members Meeting
5:00pm–7:00pm	Committee on Safety Meeting
5:30pm–6:00pm	Exhibitor Presentation: Bruker
6:00pm–7:00pm	TDRM Members Reception, co-sponsored by Silliker and Cerilliant
6:00pm–7:30pm	Europe Section Executive Committee Meeting
6:15pm–7:45pm	Contaminants Subgroup Meeting – Pesticides
6:30pm–7:30pm	China Section Business Meeting

WEDNESDAY, SEPTEMBER 30, 2015

7:30am–8:00am	Exhibitor Presentation: U.S. Pharmacopeia
7:45am–8:15am	Refreshment Break
8:00am–10:00am	Expert Review Panel for Proprietary Food Allergens – Gluten
8:00am–12:00pm	Registration Open
8:15am–9:45am	Symposium: Asian Traditional Medicines (ATM)
8:15am–9:45am	Symposium: LC-MS Multi-Class or Multi-Residue Methods for Analysis of Veterinary Drug in Food
8:15am–9:45am	Symposium: PDE5 Inhibitors in Dietary Supplements – the USP Expert Panel Experience
9:45am–10:15am	Exhibitor Presentation: LGC Standards
10:00am–10:30am	Refreshment Break
10:00am–12:00pm	AOAC Research Institute Board of Directors Meeting
10:00am–5:00pm	Poster Presentations: Analysis of Non-Foodborne Contaminants and Residues, Botanicals and Dietary Supplements, *Performance Tested Methods*℠, and Water and Wastewater Analysis
10:15am–11:45am	Analytical Roundtable for Regulators and the Regulated: Analytical Laboratories and the Dietary Supplement cGMP Challenge
10:15am–11:45am	Symposium: Analytical Assessment of Food Sensory Quality - Bridging Two Disciplines
11:45am–1:00pm	Technical Programming Council Meeting
12:00pm–12:30pm	Exhibitor Presentation: Wyatt Technology Corp.
12:00pm–1:00pm	Poster Author Presentations
1:00pm–2:30pm	Symposium: Understanding Cannabis and the Challenges of Cannabis Testing Laboratories
1:00pm–2:30pm	Symposium: Ten Years of the Food Emergency Response Network (FERN): Integration of Federal, State and Local Laboratories to Improve the National Food Defense and Food Safety System
1:00pm–2:30pm	Symposium: Analyses of Carbohydrates and Dietary Fiber
2:30pm–3:00pm	Refreshment Break
2:30pm–3:30pm	Meet Your Board of Directors
3:00pm–4:30pm	Symposium: AOAC INTERNATIONAL Stakeholder Panels Update: ISPAM, SPADA, SPDS, SPIFAN, and SPSFAM
3:00pm–4:30pm	Symposium: Analytical Challenges and Reporting Framework of Results in Perspective of Sound Method Performance Requirements
3:00pm–4:30pm	Roundtable: Progress and Remaining Challenges in the Control of Marine Biotoxins
4:30pm–6:00pm	AOAC INTERNATIONAL Business Meeting
8:00pm–11:00pm	Annual Meeting Closing Reception

THURSDAY, OCTOBER 1, 2015

9:00am–4:00pm	Official Methods Board Meeting

WILEY AWARD ADDRESS

Chemistry in the Regulatory Bio-analytical Laboratory

MONDAY, SEPTEMBER 28, 2015 | 1:00 PM – 1:30 PM

Joe O. Boison, *Senior Research Scientist,* Canadian Food Inspection Agency, Saskatoon, Canada

In this year's Wiley Award Address, Joe O. Boison, focuses on technical advancements and challenges in developing sensitive methods for veterinary drug residues analysis in animal tissues.

The penicillins were first discovered in 1928 and have been used in treating diseases in food animals for many years. Yet, it wasn't until 1991 when Boison's method was published that significant advances were made in the chemical analysis of penicillin G residues at trace-level concentrations, increasing current knowledge and understanding of the safe use of this veterinary drug in the production of food of animal origin.

Earlier attempts to develop a sensitive method were unsuccessful for various reasons. Penicillin G is unstable in aqueous acidic solutions and does not have a suitable UV chromophore. Also, most other tissue extractable materials show maximum UV absorption intensities in the UV range (180-280 nm), where native penicillin G also absorbs. Another obstacle was the inability to efficiently extract penicillin G from animal tissue and biological fluids and end up with a sufficiently clean extract to make it amenable to be chromophorically transformed for UV analysis.

Boison's method paved the way for a significant number of pivotal studies (pharmacokinetic studies, depletion studies, regulatory analysis, and rapid screening studies) to be undertaken for the first time on penicillin G residues in edible tissues and biological fluids of food-producing animals at concentrations that had never been measured before.

In addition to penicillin G, Boison's address highlights development of sensitive analytical methods for veterinary drugs, including carbadox (CBX), olaquindox (OLQ), spiramycin (SPM), tylosin (TYL), tilmicosin (TIL), virginiamycin (VMY), and bacitracin (BAC), in food animal production. These antimicrobial growth promotants (AGPs) were banned by the European Union (EU) in 1999.

In the fall of 2000, the EU audited the Canadian residue monitoring and control program for veterinary drugs and determined that Canada did not have suitable methods to monitor certain veterinary drugs, specifically the six AGPs banned by the EU in 1999. Trade with the EU would not be allowed to proceed until Canada could demonstrate that it had methods to support the control/use of these veterinary medicinal products in the Canadian food animal production system.

By the end of 2001, Boison had developed and validated a quantitative and confirmatory method for the simultaneous analysis of all the metabolites of CBX and OLQ in swine tissues. His work led to successful development and validation of highly sensitive methods for BAC, OLQ, CBX, TYL, and VMY that have now been adopted by industry, international organizations, and other regulatory laboratories and ensured that Canada has continuous access to the EU market for its meat products.

ABOUT DR. BOISON

Since graduating from McMaster University in 1986 with a Ph.D. in Analytical Chemistry and specialization in mass spectrometry, Boison has held progressively increasing positions in the Canadian Public Civil Service. He is currently a senior research scientist and research coordinator with the Canadian Food Inspection Agency. In addition, he is an Adjunct Professor of Chemistry, School of Graduate Studies, University of Saskatchewan, and an Adjunct Professor of Veterinary Biomedical Sciences at the Western College of Veterinary Medicine at the University of Saskatchewan.

Boison supervises a research and method development team in an internationally recognized and accredited residue laboratory, and was part of the team that led the first Government Laboratory in Canada to receive ISO 17025:2005 accreditation for both its diagnostic and research (test method development) programs.

His research interests cover the specialty areas of separations analysis and orthogonal detection techniques and, since his entry into the public service, his research has been focused on the development of sensitive analytical methods for veterinary drugs.

Boison was appointed as an AOAC expert reviewer in 1991 and helped to develop guidelines for the PTM program. He serves on several AOAC stakeholder panels and expert review panels (ERPs). He is currently a member of the Board of Directors of the AOAC Research Institute, Official methods Board (OMB), and Editorial Board. He is the Section Editor for Veterinary Drugs for the *Journal of AOAC INTERNATIONAL*.

Boison is a member of the Canadian Delegation to the Codex Committee on Residues of Veterinary Drugs in Foods (CCRVDF), Joint (WHO/FAO) Expert Committee on Food Additives and Contaminants (JECFA) for veterinary drugs, and a WHO Short-Term Consultant.

He received the 2011 AOAC Process Expert/General Referee Award, 2012 Fellow of AOAC INTERNATIONAL Award, 2013 ERP (Veterinary Drug Residues) of the Year Award, and 2013 Achievement in Technical and Scientific Excellence Award. In 2003, he was appointed a Fellow of the World Innovation Foundation and was awarded the CFIA President's National Award for Leadership Excellence in 2010. He has published over 70 manuscripts in peer-reviewed journals, eight textbook chapters and reviews, and presented 93 invited keynote addresses and oral presentations.

Analytical Methods to Verify Food Safety and Integrity: Needs and Challenges

MONDAY, SEPTEMBER 28, 2015

Richard H. Stadler, Ph.D., *NQAC Group Expert*, Nestec SA, Nestlé Vevey, Switzerland

Today, in general, the food that we consume is considered safer than ever, and a clearly non-negotiable requirement that all food business operators must adhere to, independent of their size or scale of manufacture, is the production and marketing of safe food. However, we still face major challenges in food safety, and are frequently confronted with food safety scares and crises, increasingly impacting food chains at a global scale.

Food safety and integrity is not only "designed in" during the manufacture of food. All individual steps across the value chain in the farm-to-fork continuum need attention, specifically upstream at the agricultural level to the farm. Here, we face a multitude of challenges, starting with the need of rapid and fit-for-purpose detection methods that will allow control and verification of safety procedures. From a microbiological perspective, next-generation DNA sequencing tools to identify pathogens by complete genome sequencing is now being applied as part of the food safety microbiologist toolkit. Rapid detection methods, based on ELISA and Polymerase Chain Reaction (PCR) technology are now widely available, alleviating the prolonged culturing of microorganisms and providing a response in real-time. Similar technological advances are also visible in the chemical testing arena; in the case of chemical contaminants and adulterants the substances are not always known upfront. The analytical techniques and approaches used must encompass both targeted (e.g. PCR) and non-targeted methods (e.g. FT-IR, NMR), keeping pace with continuously evolving fraudulent practices.

Having developed an appropriately sensitive and performant analytical method is a first step; the next (and by far more challenging) is to get agreement on the use of a common method, i.e. standardization and alignment across all stakeholders. Multiple examples can be highlighted that illustrate current gaps and weaknesses, where issues of non-compliance and/or food destruction may have been avoided.

In this context, the key priorities from a methods requirement point of view can be summarized as follows:

- Understand the vulnerabilities of raw materials to economic adulteration and food safety risks, e.g. establish a risk based strategy for control
- Standardization and harmonization of untargeted methods to detect contaminants and adulterants
- Ensuring fit for purpose and globally aligned methods to support regulatory compliance (example SPIFAN program and initiatives)
- Rapid and cost effective methods for food safety and fraud detection
- Common platforms (recognized at global level) and tools for sharing information

Addressing these priorities at a global level will contribute to a safer food supply and lead to a lower risk of non-compliance. Where currently work is being done, this needs to be accelerated, through for example partnerships in funding value added scientific programs, aimed towards strengthening food safety, compliance and integrity across the whole value chain.

ABOUT DR. STADLER

Richard H. Stadler, Ph.D. attained a Ph.D. in 1989 from the University of Munich in Germany (pharmaceutical faculty). After a 2 year post doc at the same University, he joined the Chemical Toxicology Group at the Nestlé Research Centre (NRC) in Lausanne in 1992. In 1996, he transfered to the Nestlé Quality Assurance Centre (NQAC) in Singapore as Senior Quality Technologist. Stadler returned to the NRC in 1998 to Head the Biomarkers and Contaminants Group. In 2004, he was appointed Head of Quality Management of the Product Technology Centre in Orbe, Switzerland. Stadler has published more than 100 peer reviewed papers and book chapters, and on the editorial board of several scientific journals. Stadler is currently in Corporate Quality Management supporting Operations in Chemical Food Safety.

PRE-MEETING STAKEHOLDER PANELS



AOAC has established several consensus panels to empower the industry(s) to take the lead on providing solutions to global issues. These panels serve as a science-based, open and neutral forums where global stakeholders from government, industry and academia convene to identify issues and articulate standard method performance requirements (SMPRs) needed for eliminating trade barriers; substantiating health claims; and meeting and/or establishing regulatory requirements.

These panels will be meeting on September 25-27, 2015, prior to the AOAC Annual Meeting & Exposition and are open to all attendees.

STAKEHOLDER PANEL ON DIETARY SUPPLEMENTS (SPDS)

September 25-26, 2015

The dietary supplements community is working collaboratively to identify and prioritize ingredients and develop voluntary consensus standards. For more information, visit www.aoac.org and click the tab "Standards Development", then "Stakeholder Panel on Dietary Supplements (SPDS)".
Contact: Dawn Frazier at dfrazier@aoac.org or 301-924-7077, ext. 117.

STAKEHOLDER PANEL ON INFANT FORMULA AND ADULT NUTRITIONALS (SPIFAN)

September 26, 2015

The global infant formula community is in the process of developing voluntary consensus standards for global dispute resolution methods. For more information, visit www.aoac.org and click the tab "Standards Development", then "Stakeholder Panel on Infant Formula and Adult Nutritionals (SPIFAN)".
Contact: Anita Mishra at amishra@aoac.org or 301-924-7077, ext. 131.

INTERNATIONAL STAKEHOLDER PANEL ON ALTERNATIVE METHODS (ISPAM)

September 26, 2015

ISPAM is focusing on two initiatives: 1) to bring the industry and government together to seek a common ground to harmonize internationally accepted method validation protocols for microbiology and qualitative chemistry methodology and 2) to develop a flexible, scientifically-sound, consensus-based and internationally acceptable microbiological sampling plan for the detection of Salmonella in leafy greens. For more information, visit www.aoac.org and click the tab "Standards Development", then "International Stakeholder Panel on Alternative Methodology (ISPAM)".
Contact: Krystyna McIver at kmciver@aoac.org or 301-924-7077, ext. 111.

STAKEHOLDER PANEL ON STRATEGIC FOOD ANALYTICAL METHODS (SPSFAM)

September 27, 2015

AOAC is bringing the food industry together to lead the charge to develop much needed standards and methods that promote food safety, food security, and facilitate trade. For more information, visit www.aoac.org and click the tab "Standards Development", then "Stakeholder Panel on Strategic Food Analytical Methods (SPSFAM).
Contact: Dawn L. Frazier at dfrazier@aoac.org or 301-324-7077, ext. 117.

SUNDAY, SEPTEMBER 27, 2015

1:00 pm – 4:30 pm

TDLM Training Session: Method Development Done Right so Method Validation is Light

If method development is done right, the subsequent validation can be light. This means that if the experiments done during method development are planned and executed correctly, fewer experiments are needed in the method validation. This can result in reduced time, reduced work, reduced expense and reduced risk for the method validation.

The purpose of method development is to find a technology that works and refine it to be an analytical procedure that is fit for purpose. An example of a method development activity that can be done right is the ruggedness test. If it is planned to include the suspected critical parameters and executed following a Design of Experiments and the resultant data analyzed using ANOVA, valuable information on the various uncertainty components will be available that can be used in the estimate of uncertainty. The ruggedness test can be referenced in the method validation and does not need to be repeated. This and other such examples will be presented at the workshop. Because of the limited time in a workshop, the attendees will be given references and resources that they can use for further self-study. An EXCEL spreadsheet with some useful examples will be distributed to the attendees. As part of the group work these EXCEL files will be needed, so the attendees should bring their own laptops to the workshop.

CO-CHAIR: **Jane Weitzel,** *Consultant*
CO-CHAIR: **Franz Ulberth,** *European Commission – Institute for Reference Materials and Measurements*

Analytical Approaches to Assess Food Authenticity, or Are You Eating What You Think You Are?

Economically motivated adulteration (EMA) is a problem that has plagued the food industry for almost as long as men have offered food for sale. A quick stroll down the records of the Food and Drug Administration reveals a number of examples of the dishonest means that proprietors have used to defraud their customers by offering cheaper and sometimes, dangerous replacements for desired food products. Examples from the 20th century include the dilution of milk with water to extend the product, addition of urea to diluted milk to "augment" the protein content and the use of cheaper rotten eggs in baked products because you could "bake" the smell out of the food. Examples of today's fraud schemes include the use of isotopically matched syrups to dilute juices and the use of dyes to give cheaper oils the fine light green color of extra virgin olive oil. The real danger is when these food thieves push the limits of safety and end up producing products that present a public health threat. Detection and analysis of foods for these types of dishonest practices is essential to not only the health of our markets but also the consumers we serve and protect. This symposium will include coverage of methods for the detection of adulteration in foods such as those mentioned above (juices, etc.) but also will extend to products of a more adult nature. We encourage you to join us for what we expect to be a lively discussion of a constantly evolving problem.

CO-CHAIR: **Michael McLaughlin,** *U.S. FDA*
CO-CHAIR: **John Szpylka,** *Silliker Laboratories*
CO-CHAIR: **Dana Krueger,** *Krueger Food Laboratories, Inc.*

- **Thomas Collins,** *University Of California - Davis*
  Whiskey Adulteration: Analytical Approaches and Fingerprinting
- **Selina Wang,** *University Of California - Davis*
  Olive Oil Authenticity: Pursuing Innovation in Chemical Analysis
- **David Hammond,** *Eurofins*
  Recent Problems of Economic Adulteration of Fruit Juices in the American Market
- **Frank Konstantinides,** *University of Minnesota*
  Identification and Quantification of Adulterants in Protein Ingredients and Products
- **Dana Krueger,** *Krueger Food Laboratories, Inc.*
  Use of LC-MS techniques for Untargeted Screening of Fruit Juices
- **Markus Lipp,** *U.S. Pharmacopeia*
  Authenticity-Labeling-Fraud: Screening for the Unknowns – How Can Databases Help?
- **Oral Poster Presentation**
  Madhavi Mantha, *Forensic Chemistry Center*
  Detection of Economic Adulteration of Lemon Juice by Isotope Ratio Mass Spectroscopy

SCIENTIFIC SESSIONS

MONDAY, SEPTEMBER 28, 2015

1:30 pm – 3:00 pm

Wiley Award Symposium: Innovative Approaches to the Analysis of Veterinary Drugs and Chemical Contaminants in Foods

The last decade has seen major advances in the analysis of chemical contaminants. Utilizing high resolution liquid chromatography mass spectrometry, scientists can now quantitate at the sub part per billion levels. As the instrumentation advances, analysts are now able to screen for over 200 chemicals in a single run. Others are screening contaminants in high throughput micro plate format using very small sample sizes. Still others are using very fast instrumental analysis techniques which push the envelope of sample throughput even further. Join us for a glimpse into the future of contaminant analysis.

CHAIR: **Jo Marie Cook,** *Florida Department of Agriculture and Consumer Services*

- **Joe Boison,** *Canadian Food Inspection Agency*
  Innovative Approaches to the Analysis of Veterinary Drugs
- **Katerina Mastovska,** *Covance Laboratories Inc.*
  Chemical Residue, Contaminant, and Adulterant Analysis: Where Are We Now and Where Are We Heading?
- **Cheryl D. Stephenson,** *Eurofins Central Analytical Laboratories*
  Analysis of B Vitamins in Human Breast Milk Using UPLC-MS/MS with Microplate Sampler
- **Perry Martos,** *University of Guelph*
  Newest Methods for Veterinary Drug Residues

Norovirus Detection in Foods: Current Status and Roadmap to Future Validated Methods

Noroviruses are one of the leading causes of foodborne illnesses in the USA and around the globe. The methodologies for norovirus detection include complex steps of sample preparation and molecular-based amplification techniques. As *in vitro* cell culture for the virus is not available as of now, the confirmation of live/ infectious virus is unlikely. Thus, the interpretation of positive molecular screening results often becomes challenging due to the lack of correlation with virus infectivity or viability. This necessitates a thorough scientific review of the currently available methods and development of specific guidelines to validate the performance of these methods. The method validation activities will require scientific capacity building in-terms of strain collections, method controls and data interpretation. The symposium will address these issues through the experience of global key opinion leaders in the field of norovirus detection. The talks will be followed by an interactive open discussion including audience participation to deliberate key issues those have hindered the routine use of diagnostic methods for virus detection in foods.

CO-CHAIR: **Patrice Arbault,** *Nexidia*
CO-CHAIR: **Hari Dwivedi,** *bioMérieux, Inc.*

- **Lee-Ann Jaykus,** *North Carolina State University*
  Detection of Noroviruses in Food: Where Do We Stand Today?
- **Fabienne Loisy,** *bioMérieux SA*
  Norovirus Reference Material and Detection Methods: Current Ready to Use Capabilities
- **Sarita Raengpradub-Wheeler,** *Mérieux NutriSciences - Silliker*
  Food Contract/ Service Labs Perspective on Norovirus Detection: Challenges and Opportunities

Rapid Methods for Chemical Contamination: Cell Based assay, Spectroscopy, Portable Devices and Beyond

Chemical contaminants such as mycotoxins and dioxins pose a major risk for human and animal health. Regulatory limits are established globally to reduce human and animal exposures to chemical hazards. Rapid assays for chemical contaminants play an indispensable role in regulatory frame work with regard to surveillance and compliance. Compared to classical chromatography or mass spectrometry based platforms, a variety of screening methods are less costly and present much higher throughput, which facilitates analyzing a large volume of samples in a rapid and economic fashion. Other advantages of rapid methods include enablement of on-site decision making by point-of-sampling tests. The strengths and weaknesses of the rapid methods will be elaborated and performance standards will be discussed in the first presentation. In the second presentation, a non-main stream cell based assay for analyzing dioxin, a group of persistent environmental pollutants and highly toxic chemicals even at trace level concentrations (ppt) will be introduced. The classical assay for dioxins is the high resolution gas chromatography and mass spectrometry analysis, which is tedious and time consuming. CALAUX, a cell based bio assay has been developed and validated to screen dioxin at trace level concentrations. Furthermore, a field portable X-RAY fluorescence based platform will be presented for analyzing mercury in face cream products and providing reasonable agreeable results with the ICPMS analysis results. Finally, the feasibility of using a surface-enhanced Ramen spectroscopy based method to screen aflatoxin in maize from 0 to 1000 ug/kg concentration range will be presented. The session will offer audiences a broad spectrum of some non-mainstream rapid chemical screening assays and their potential applications.

CO-CHAIR: **Michael McLaughlin,** *U.S. FDA*
CO-CHAIR: **Susie Dai,** *Office of the Texas State Chemist*

- **Susie Dai,** *Office of the Texas State Chemist*
  Rapid Screening Methods: Pros, Cons and How Fast Do We Need Them?
- **George Clark,** *Xenobiotic Detection Systems*
  CALUX: A Cell based Screening Assay for Dioxin and Dioxin-Like Chemicals
- **Pete Palmer,** *San Francisco State University*
  Use of Field-Portable XRF Analyzers for Rapid Screening of Toxic Elements
- **Kyung-Min Lee,** *Office of the Texas State Chemist*
  Surface-Enhanced Raman Spectroscopy for Rapid Detection of Aflatoxin in Maize

3:30 pm – 5:00 pm

Hot Topics in Cosmetics and Color Additives

An increasingly global marketplace has resulted in many novel and complex challenges for the analysis of ingredients and contaminants (chemical and microbiological), and the analysis of color additives in foods and cosmetics. Consumers are as concerned about the chemical composition and safety of cosmetic products as they are about foods, both of which may be imported from a variety of countries as well as domestically produced. This has heightened interest in the alignment of regulatory requirements for the marketing of cosmetics and the international harmonization of scientific methods and standards. This AOAC Scientific Session provides initial briefings that speak to the challenges on both the regulatory and analytical scientific fronts, including the harmonization of analytical methods. This session is intended to further develop our AOAC Community on Cosmetics and Color additives.

CO-CHAIR: **Bhakti Petigara Harp,** *U.S. FDA*
CO-CHAIR: **Thomas Hammack,** *U.S. FDA*

- **Kenneth Kariasz,** *Johnson & Johnson Consumer Products, Inc.*
  Analytical Test Method Challenges in Color Cosmetics
- **Sneh Bhandari,** *Silliker Inc.*
  Determination of Permitted and Non-permitted Color Additives in Food Products
- **Marianita Perez Gonzalez,** *U.S. FDA*
  Identification of Pigments in Tattoo Inks by X-ray Powder Diffraction, Raman Spectroscopy, and Liquid Chromatography
- **Kyson Chou,** *U.S. FDA*
  Isolation and Identification of Nontuberculous Mycobacteria Associated with Tattoo-Related Outbreaks

Regulatory Microbiological Criteria and Rapid Food Micro Methods: The European Playground

North America and Europe have specific regulations regarding microbiological criteria for foodstuff. The European regulation for these microbiological criteria, EC 2073/2005, specifies the critical information for the various food-borne pathogens and the hygiene indicators, according to the food categories. Furthermore, this regulation mentions the reference methods that should be used for performing food analysis, and defines the framework for the use of alternative (also called rapid) microbiological methods in place of the reference methods. Any alternative method to be used for food testing in EU, shall be evaluated against the reference method according to international validation programs, mainly ISO 16140 for EU. Different validation programs such as Afnor, MicroVal and NordVal have been set in Europe for the official certification of these alternatives methods. Since the ISO 16140 standard has been considerably revised and will be officially released in 2015, this symposium has been developed to illustrate the new requirements in regards of the EU microbiological criteria and also in the view of harmonization with other international validation programs such as AOAC-PTM & AOAC-OMA. The value of this new standard will also be discussed in regards of the food industry operator needs and expectations. An update on the European playground and a presentation on the final changes to ISO 16140 will be provided as a foundation to discuss the following questions:

- What are the key elements of a European validation scheme?
- How are implemented the new criteria outlined within the revised ISO 16140?
- How does the AOAC validation scheme harmonize with European validation protocol?
- What are the benefits for a food industry laboratory to use certified methods?

CO-CHAIR: **Philippe Leroux,** *PhL Consultant*
CO-CHAIR: **Danièle Sohier,** *ADRIA*
CO-CHAIR: **Patrice Arbault,** *Nexidia*

- **Bertrand Lombard,** *ANSES*
  European Regulation on Microbiological Criteria for Food and New Trends
- **Danièle Sohier,** *ADRIA*
  Revision of EN ISO 16140 Standard: A New Opening for Method Validation
- **Valentine Digonnet,** *AFNOR Certification*
  NF-Validation Mark: Implementation of the New Validation Requirements
- **Pamela Wilger,** *Cargill, Inc,*
  Testimonials: What Does Mean the Use of Validated Methods to the Food Industry?

Analysis of Metals and Metals Speciation in Food

As people become ever more interested in the quality of the food, beverages, and dietary supplements they consume every day, the presence of heavy metals in products has become a matter of growing concern. In addition, there is increasing awareness regarding the forms of metals present in foods, as different species of metals (e.g., inorganic arsenic or methylmercury) have different toxicological properties. Many natural foodstuffs can accumulate heavy metals from the environment (i.e., the soil and water), but determining exactly how much of a specific metal or metal species in a product can require sensitive analytical techniques and experienced laboratory personnel. Perhaps even more importantly, since natural levels can often be in the low parts-per-billion range, laboratories that are not experienced with the proper analytical methods can easily contaminate samples or overestimate concentration by improper correction for matrix interferences. The focus of this session is to present the current state of analytical method development and research for the determination of heavy metals and metals speciation in food

CO-CHAIR: **Michelle Briscoe,** *Brooks Rand Labs*
CO-CHAIR: **Cory Murphy,** *Canadian Food Inspection Agency*

- **Russell Gerads,** *Brooks Rand Labs*
  Analysis of Wine for the Characterization of Inorganic Arsenic and Metalloid Compounds
- **Erik Larsen,** *Technical University of Denmark, National Food Institute*
  Detection and Characterization of Nanoparticles in Food and Biological Materials - An Introduction
- **Jens Sloth,** *Technical University of Denmark, National Food Institute*
  Trace Elements in Seaweed: Analysis and Applications

TUESDAY, SEPTEMBER 29, 2015

8:15 am – 9:45 am

The Current Impact of Mycotoxins on Food and Dietary Supplement Safety

Mycotoxins have long been known to have an impact on public health throughout the world and have been studied and monitored extensively. The problem is particularly acute in parts of the world where the diet consists largely of grains at risk for mold contamination and mycotoxin production. As dietary supplement continue to grow in their use, these natural materials are encountering mycotoxin contamination as well. This symposium will review methods used for the analysis of mycotoxins and present recent surveys for different foods and dietary supplements. The session presenters will focus on what is being done to accurately assess the exposure levels for foods and dietary supplement and discuss advances techniques being used. Techniques will include methodologies for efficient extractions that save time, cost and improve recoveries. Presenter will show technologies such as LC-MS/MS, LC-MS ion trap, and Bio-Sensors for rapid and specific detection. This session brings together researcher currently involved in the mycotoxin community to improve methods and supply valuable information in increase the safety of the food supply.

CO-CHAIR: **Jack Cappozzo,** *Institute for Food Safety & Health at the Illinois Institute of Technology*
CO-CHAIR: **Jerry Zweigenbaum,** *Agilent Technologies, Inc.*

- **Kai Zhang,** *U.S. FDA*
  Development of LC-MS Based Multi-Mycotoxin Methods for Compliance Testing and Surveillance
- **Ashli Brown,** *Mississippi State University*
  Using FTIR as a Tool for Identification of Toxin Producing Agricultural Phytopathogens
- **Chris Maragos,** *U.S. Department of Agriculture*
  Future Approaches to Mycotoxin Detection Using Bio-Sensors
- **Jerry Zweigenbaum,** *Agilent Technologies*
  Current Monitoring Methods for Mycotoxins from Dip Stick to Mass Spectrometry and their Application to Dietary Supplements and Food

Practical Issues Arising from Statistical Design and Analysis of Method Validation Studies

This session focuses on statistical methodology related to 'best practices', walking analysts through the issues and solutions related to validation studies. Such issues include minimum number of collaborators, incremental collaborative studies, calibration curves and others.
Examples of practical methods for data analysis – First to Final Action Strategies are provided, and these strategies include using traditional collaborative studies, proficiency study data, and other experimental data to evaluate method performance. Suggestions for practical approaches to data treatment when multiple data sources are used are also provided.

The practical issues involved in the statistical analysis of data from an incremental collaborative study with assessment of performance requirements for bias and precision are addressed and examples will be given. The details of this analysis indicate how a sequentially performed incremental collaborative study should be analyzed. The choice of whether to leave the data untransformed (assumed normally distributed) or log10-transformed is made based on method-expertise expectations and assessment of normal Q-Q plots. Method performance requirements are proposed and assessed for bias (recovery) and precision.

Calibration of an analytical system with problems and solutions are discussed. This is exemplified by calibrations of fairly complex multivariate systems employing different calibration regimes and algorithms with an attempt to generalize and standardize the calibration optimization.

CHAIR: **Qian Graves,** *U.S. FDA*

- **Wolfhard Wegscheider,** *Montanuniversity Leoben*
  Calibration of Analytical System - Current Problems and Solutions
- **Paul Wehling,** *General Mills, Inc.*
  Practical Methods for Data Analysis – First to Final Action Strategies
- **Robert LaBudde,** *Least Cost Formulations, Ltd.*
  Practical Issues Involved in the Statistical Analysis of Data from an Incremental Collaborative Study with Assessment of Performance Requirements for Bias and Precision

Oral Posters from Dietary Supplements and Botanicals

This session is dedicated to all those who participate and present their work in form of posters at the 129th International AOAC meeting. This is a meeting of peers and only quality work is channeled through for presentations. The presentation formats are oral, posters and round tables. It is difficult to showcase all the posters as oral presentation due to the volume and material content of the research involved. This is the reason that AOAC did decide to nominate some posters as oral poster presentations to be delivered as curtain raisers / teasers / prelude at the bottom of few scientific sessions (time permitting) in form of a short presentation. The proposed session is an additional effort to showcase presenters from select posters in botanical and dietary supplements category. There will be four to five presenters who will be selected by a special jury panel of peers from technical programming council (TPC) and will be invited to present their work as a full oral presentation in this session. The names of the selected presenters will be disclosed at a later date in order to include in the AOAC final program. This type of session was successfully attempted at the 127th and 128th AOAC international Meeting in Chicago (IL) and Boca Raton (FL). It is our wish and expectation that this will initiate a new trend in AOAC for offering an opportunity to new scientists for presenting their work to a diverse audience in an oral format.

CO-CHAIR: **Amit Chandra,** *AMWAY R&D*
CO-CHAIR: **Michael McLaughlin,** *U.S. FDA*

10:15 am – 11:45 am

Use of CRMs and/or RMs in Method Validation and Maintaining Accreditation According to ISO/IEC 17025

The TDRM symposium will discuss the assessment of analytical performance parameters that are checked by third party assessors in an ISO/IEC 17025 accredited environment. The symposium will explain and discuss the added value of using certified reference materials (CRMs) and highlight the differences between CRMs and reference materials (RMs) in method validation and maintaining accreditation according to ISO/IEC 17025. Concepts like trueness and traceability of analytical results will be outlined as well as providing information on benchmarking of the results in proficiency testing and inter-laboratory comparisons. Finally a lecture will be given to discuss challenges associated with dry mass correction which can cause significant bias if not properly accounted for. The symposium is set up around four lectures of 20 minutes given by experts in the field.

- Outlining definitions and differences between RM and CRM
- Explaining trueness and traceability of measurement results
- Comparisons between lab results and/or certified values (benchmarking)
- Pitfalls in dry mass corrections

CO-CHAIR: **Håkan Emteborg,** *European Commission - JRC - IRMM*
CO-CHAIR: **Donna Zink,** *AIM Research Enterprises*

- **Michael R. Winchester,** *National Institute of Standards and Technology*
  RM and CRM: What's the Difference?
- **Catherine A. Rimmer,** *National Institute of Standards and Technology*
  Trueness and Traceability in the Analytical Laboratory
- **Jane Weitzel,** *Private Consultant*
  Digging for Gold: Use a Reference Material to Determine if Your Method is Golden
- **Håkan Emteborg,** *European Commission - JRC - IRMM*
  Pitfalls in Dry Mass Corrections

New Blood 2015: Developing Methods for the Detection of Chemical Analytes and Contaminants

The detection of chemical analytes and contaminants in food, drugs, cosmetics and other agricultural commodities is an interesting and continually evolving discipline. In order to maintain a vibrant and active community, young scientists must be encouraged to work in these areas. The purpose of this session is to give the new members of our community an opportunity to present their work. Due to its popularity, there has been a New Blood session at every AOAC Annual Meeting and Exposition ever since the first New Blood Technical Session held at the 124th Annual Meeting in 2010 in Orlando, FL. The sessions at the second, third, fourth and fifth meetings in New Orleans, Las Vegas, Chicago, and Boca Rotan have either been the most or one of the more heavily attended sessions at each of those meetings. It is hopeful to continue the tradition to have at least one session at every AOAC meeting dedicated to new and talented AOAC members.

CO-CHAIR: **Alexander Krynitsky,** *U.S. FDA*
CO-CHAIR: **Michael McLaughlin,** *U.S. FDA*
CO-CHAIR: **Jon Wong,** *U.S. FDA*

- **Sergio Nanita,** *DuPont Crop Protection*
  High-Throughput Mass Spectrometry Methods Emerging from Analytical Chemistry Research in Industry
- **Hui Zhao,** *Covance Laboratories Inc.*
  Multiresidue Veterinary Drug Method Development in Infant Formula

- **Gareth Cleland,** *Waters Corporation*
  The Use of Modern HRMS Techniques for a Pragmatic Approach to Contaminant Screening
- **Haejung An,** *U.S. FDA*
  Simultaneous Rapid Analysis of Mitrofuran and Cchloramphenicol for Shrimp and Fish Using Liquid Chromatography Tandem Mass Spectrometry
- **Oral Poster Presentation**
  Mingchih Fang, *Taiwan Food and Drug Administration*
  Detection of Diethyl Yellow Dye Used Illegally in Processed Soymilk Curd by coupled LC-Photodiode Array Detection and High Resolution Orbitrap MS

Food Allergens – Quo Vadis?

Once upon a time, in 2003, the European Commission decided that its current legislation may not sufficiently protect allergic consumers. So the first, allergen-specific amendment of the labelling directive was issued. Some thought, this goes too far, over-protecting allergic consumers as also refined products, which usually do no longer carry allergen-triggering proteins, had to be labelled, limiting the choice of this group even further. So applications for amendment were filed. And then – all of a sudden – two more groups of allergens were added. And among the exemption applications, some passed and the allergen no longer has to be labelled, while others didn't. In 2007, the final allergen amendment was published, only to revamp the complete document in 2011 into the consumer information regulation (so it is no longer a directive).
What about allergen analysis: this certainly evolved too? From "all can be tested by ELISA and PCR" to a more differentiated: many products are suitable for testing with the appropriate methods. And a completely new type of method was added: mass spectrometry. Where is the food allergen issue going – regulatory wise, analytical and last but not least: food industry? This session will provide a review, a stock taking of status quo and give an outlook what is likely to come.

CO-CHAIR: **Bert Popping,** *Mérieux NutriSciences Corporation*
CO-CHAIR: **Carmen Diaz-Amigo**

- **Bert Popping,** *Mérieux NutriSciences Corporation*
  Food Allergens Quo Vadis – Setting the Scene
- **Roland Poms,** *Imprint Analytics*
  Towards Reference Materials for Food Allergen and Gluten-Free Analysis
- **Jupiter Yeung,** *Nestlé Nutrition*
  The Past, Present and Future: Food Industry Perceptions from 2000 and Onwards
- **Franz Ulberth,** *European Commission - JRC - IRMM*
  Mind the Gap! Challenges in Deriving Allergen Content from Peptide Concentration

3:00 pm – 4:30 pm

Gluten Measurement Variation: Sampling, Subsampling and Analysis

As food producers and government regulators begin to manage the supply chain for gluten free foods, understanding the magnitude of measurement variation will be a critical part of a quality management scheme. Unfortunately, very little data has been collected and published on gluten measurement uncertainty in real samples, outside of limited data sets from method validation studies. In addition, sampling and subsampling variation of gluten free samples may add significant variation to the measurement process. The purpose of this symposium will be to explore the technical issues surrounding evaluation of analytical and sampling variation. Our hope will be that we can get speakers from industry and regulatory agencies with some working experience in this area, and we will strive to find preliminary estimates for variation at each step of the process.

CO-CHAIR: **Paul Wehling,** *General Mills, Inc.*
CO-CHAIR: **Jupiter Yeung,** *Nestlé Nutrition*

- **Laura Allred,** *Gluten-Free Certification Organization*
  Gluten Free Sample Collection and Handling – Best Practices and Practical Practices
- **Thomas Grace,** *Bia Diagnostics LLC*
  Estimating Sampling Variation – Experimental Data from Farm to Lab
- **Paul Wehling,** *General Mills, Inc.*
  Estimation of Gluten Analytical Variation on Real Food Ingredients and Finished Products
- **Karl Kurz,** *Canadian Food Inspection Agency*
  Regulatory Aspects of Gluten Measurement Variation

TDRM Workshop: How Do I Set Up a Proper-Inter Laboratory Comparison with Testing Materials that I Have Prepared Myself?

The TDRM workshop will address the necessary key elements in material preparation and material assessments prior to inter-comparisons, method validations and round robins using a combination of lectures and group discussions. The participants will be asked to develop a plan for a laboratory inter-comparison possibly using an example from their specific field in group discussions. In order to kick-start the round-table discussions between the workshop participants, three lectures will then be given to illustrate and underline the key elements that must be under control in order to obtain a sound basis for comparing lab-performance and/or methods. The first lecture will describe assessments of the test items with respect to stability of the target parameters as well as the equivalence between the sample-units produced. The second lecture will be dedicated to shipping conditions and packing requirements for appropriate sending of test samples to the laboratories. A third lecture will finally outline different ways of comparing the analytical results from the participating laboratories and explain the use of blind anonymous check/QC samples. Summaries will then be done per table to identify the gaps in their initial inter-comparison plans. Concluding remarks and an outlook will finally close the workshop.

CO-CHAIR: **John Budin,** *FONA International*
CO-CHAIR: **Håkan Emteborg,** *European Commission - JRC - IRMM*

Genomics: It's HERE, Now What Do We Do with It?

Emerging and more informative technologies such as genomics and high resolution mass spectrometry for the identification of food-borne pathogens dramatically reduce analytical time to results and allow for the resolution of *thousands of species and serotypes of bacteria* in a single test. These methods are extremely exciting and potentially present entirely new tools for the food safety industry and regulatory bodies. Current validation schemes are developed using a reference (cultural) methods and singular identification and speciation as the reference. How will we address validation of these new technologies/methods that allow for the resolution of thousands of species and serotypes of bacteria using a single test?

In this Symposium, attendees will be:

1. Informed of the latest applications of these new technologies and presented with additional research activities that could potentially lead to additional future routine uses and governing application; and then...
2. Invited to participate in a round table discussion with regulators, discussing gaps in requirements and considerations necessary in the approaches that might be used by regulatory authorities to determine validation requirements of methods using these new technologies

CO-CHAIR: **DeAnn Benesh,** *3M Food Safety*
CO-CHAIR: **Patrice Arbault,** *Nexidia*

- **Kelly Hoon,** *Illumina*
  Whole Genome Sequencing (WGS): Current & Future Technology

WEDNESDAY, SEPTEMBER 30, 2015

8:15 am – 9:45 am

Asian Traditional Medicines (ATM)

In some Asian countries, up to 80% of the population relies on traditional medicine for their primary health care needs. When adopted outside of its traditional culture, traditional medicine is often called complementary or alternative medicine. Recently, World Health Organization (WHO) launched the Traditional Medicine Strategy: 2014-2023 with a three-pronged objective; to build a knowledge base and formulate national policies; to strengthen the safety, quality and effectiveness of traditional medicines through regulation. In this session we will focus on the Qualitative evaluation study of supplement grade *Drynaria fortunei* extracts for its authenticity and its use in Traditional Chinese Medicine (TCM). The recommendations from this study may be used as a tool to maintain, track and improve the quality of commercially available *D. fortunei* extracts as a non-adulterated dietary supplement. In this session we will also present the use of High Performance Thin-Layer Chromatography (HPTLC) as a suitable means to assess the Identity and Quality of Botanical products by detecting adulteration and characterizing the correct species and plant part.

This session will bring forward the discussion on complex issue of standardization and authentication of botanical ingredients used in various Asian Traditional Medicines. This session will be of great interest to analytical scientists, chemists & biochemists and dietary supplement manufacturers.

CO-CHAIR: **Jat Rana,** *AMWAY R&D*
CO-CHAIR: **Amit Chandra,** *AMWAY R&D*

- **Teric Li,** *AMWAY China R&D*
  Qualitative Evaluation of Supplement Grade Drynaria fortunei Extracts for Authenticity
- **Jonathan Nguyen,** *Alkemists Laboratories*
  Use of High Performance Thin-Layer Chromatography (HPTLC) for the Authentication of Botanical Ingredients in Asian Traditional Medicines

LC-MS Multi-Class or Multi-Residue Methods for Analysis of Veterinary Drug in Food

There has been great interest and effort by a number of national and international bodies to develop and validate LC-MS multi-class and multi-residue methods to determine the veterinary drugs in food matrices. However, there have been many challenges to develop such LC-MS or extraction methods to cover all different groups of veterinary drugs in one single analysis due to their extractability and LC chromatographic retention and attributed to their different chemical properties.
This scientific session provides a platform for scientists from the international food safety related governmental agencies, industries and academia to present and discuss their recent achievements and challenges on the development of LC-MS multi-class or multi-residue methods for targeted and untargeted analysis including metabolomic approach. The emerging technologies to be discussed include UHPLC/ESI-MS/MS, UHPLC/ESI Q-Orbitrap, and UHPLC/ESI Q-TOF etc. The validation guidelines and the method performance criteria, especially for screening based on high mass-resolution mass spectrometry, are also discussed. Overall, the session will be of interest to scientists and managers of analytical laboratories to increase their sample throughput or improve monitoring efficiency.

CO-CHAIR: **Jian Wang,** *Canadian Food Inspection Agency*
CO-CHAIR: **Eric Verdon,** *ANSES - Laboratory of Fougeres*

- **Anton Kaufmann,** *Official Food Control Authority of the Canton of Zurich*
  Combined Screening, Quantification, and Confirmation of Residues by Q-HRMS: The Possibilities, the Pitfalls
- **Bjorn Berendsen,** *RIKILT - Institute Of Food Safety*
  Towards Future Guidelines for Confirmatory Analysis – A collaborative Study Comparing the Selectivity of MS Instruments in Several Acquisition Modes for Multi-Residue Veterinary Drug Analysis
- **Wolfgang Radeck,** *Federal Office for Consumer Protection and Food Safety*
  Multi-Class Screening Methods for Residues of Veterinary Drugs in Animal Tissues Meet the Requirements in Routine Analysis by Means of LC-HR and LC-MS/MS
- **Jacqueline Sram,** *U.S. FDA*
  Analysis of Forty Veterinary Drug Residues in Shell Eggs

PDE5 Inhibitors in Dietary Supplements – the USP Expert Panel Experience

For the last two years, under the aegis of United States Pharmacopeial Convention, the Expert Panel on Adulteration of Dietary Supplements with Drugs and Drug Analogs has been evaluating analytical methodologies in order to establish effective dietary supplement screening procedures for artificially introduced synthetic adulterants. Three dietary supplement categories, in which adulteration is particularly rampant, are Sexual Enhancement, Weight Loss and Sports Performance Enhancement. Method development and validation efforts are exacerbated by the three major handicaps: the analytes are unknown, the matrix cannot be defined, and there is no established dosage. The USP Expert Panel evaluated a number of analytical strategies and identified five diverse methodologies which enable to conduct successful screening of Sexual Enhancement supplements adulterated with PDE5 inhibitors. The techniques, assembled into the first installment of USP General Chapter <2251>, Adulteration of Dietary Supplements with Drugs and Drug Analogs, are truly orthogonal, and complementary. The symposium will showcase three of these techniques, highlight their nuances, and discuss practical implications of their utilization for this and other adulteration categories.

CO-CHAIR: **James Neal-Kababick,** *Flora Research Laboratories*
CO-CHAIR: **Dennis Gorecki,** *University of Saskatchewan*

- **Teresa Cain,** *U.S. FDA*
  LCMS Analysis of PDE-5 Inhibitors Utilizing Ion-Trap Data Triggered Scanning and UV Spectra
- **John Edwards,** *Process NMR Associates*
  Bench-top Lowfield NMR Techniques for Detection of PDE-5 Inhibitors in Dietary Supplements
- **Said Goueli,** *Promega Corporation*
  High Throughput Rapid Phosphodiesterase-5 Inhibitor Assay Technique for Non-Targeted PDE-5 Inhibitor Detection
- **Anton Bzhelyansky,** *United States Pharmacopeia*
  From the USP- Why a General Chapter and How USP Enters Into New Territory for General Chapters

10:15 am – 11:45 am

Analytical Assessment of Food Sensory Quality: Bridging Two Disciplines

Understanding food composition as it relates to sensory perception requires bridging the often separate disciplines of analytical chemistry and sensory analysis in a meaningful way to enable the identification and quantitation of chemicals present in food responsible for the biological responses of taste and smell. Flavor chemists have long understood this and have worked to develop techniques such as gas chromatography-olfactometry (GCO) to focus their attention on the compounds most impactful to the overall flavor or off-flavor of a food. The most recent advances in this area are using chemometrics to analyze the various data generated by chemical sensors and the GC and LC analysis of foods, in conjunction with the sensory analysis of food as conducted by experienced, expert sensory analysts, with this technique being used both in product development and everyday quality control where sensory analysis may not be practical from a cost and reliability standpoint. The intent of this session is to provide an introduction into this area of work and it's applications to the food and flavor industry as it relates to basic research, product formulation and shelf stability.

CHAIR: **David Cunningham,** *Ocean Spray Cranberries, Inc.*

- **Ian Ronningen,** *University of Minnesota*
  Untargeted Flavoromics for Novel Flavor Compound Discovery
- **Roger Bleiler,** *Mocon, Inc.*
  A Better Approach to Investigating Aroma and Odor Problems
- **Jean-Christophe Mifsud,** *Alpha M.O.S. America, Inc.*
  Electronic Sensing Instrumentation, Filling the Gap Between Sensory and Instrumentation

Analytical Roundtable for Regulators and the Regulated: Analytical Laboratories and the Dietary Supplements cGMP Challenge

Current Good Manufacturing Practice regulations for Dietary Supplements have now been in place since 2007, and full compliance has been required since 2010. Several years of theoretical discussions are in the process of becoming informed by actual laboratory practice and FDA enforcement. This session will engage the audience in an interactive panel discussion with analysts from supplement company's in-house laboratories, small and large contract laboratories, an innovative contract research organization, a botanical supplier dealing with FSMA requirements, and regulatory experts. The discussion is expected to be free-wheeling and will range from identity testing requirements, "reasonably anticipated contaminants", standard operating procedures, "verification or validation", and qualification of standards and reference materials. The ultimate goal of the session is to put manufacturers and contract labs in the same room so that contract labs can provide a breakdown of tests available and the average resources necessary to perform, manufacturers can provide a realistic picture of their available resources, and for regulatory experts to comment on the mandates of the regulation as related to resources.

CO-CHAIR: **Joseph Betz,** *National Institutes of Health*
CO-CHAIR: **Amit Chandra,** *Amway R&D*
- **Darryl Sullivan,** *Covance Laboratories Inc.*
- **Aniko Solyom,** *GAAS Corporation*
- **James Neal-Kababick,** *Flora Research Laboratories*
- **Shauna Roman,** *RB Manufacturing LLC*
- **Jana Hildreth,** *Synutra Pure, Ltd.*
- **Steven Dentali,** *Herbalife*
- **Catherine Rimmer,** *National Institute of Standards and Technology*
- **Melissa Phillips,** *National Institute of Standards and Technology*
- **Rupa Das,** *BI Nutraceuticals*
- **Oral Poster Presentation**
  Wayne Wolf, *Agricultural Research Service (Retired)*
  TDRM/AOAC Reference Materials-Methods Database

1:00 pm – 2:30 pm

Analyses of Carbohydrates and Dietary Fiber

Carbohydrates are widely used in food and supplemental nutrition products as a major energy source, sweeteners, and for improving texture. Carbohydrates, such as dietary fibers, can also provide functional benefits. Unlike other nutrients, dietary fiber derives its nutritional value not from being digested and absorbed but remaining undigested while passing through the stomach and small intestine and being partially or fully fermented in the large intestine. With increasing consumer awareness and progressing regulations, specific and accurate analyses of carbohydrates, including simple sugars, complex digestible carbohydrates, and dietary fibers, are of great importance. While liquid chromatographic methods are widely used to quantify specific sugars and oligosaccharides, quantitative measurement of dietary fibers depends on measuring resistance to digestion. Key to dietary fiber methodology is accurately simulating the human digestion system, method reproducibility, and assuring capture and quantitation of the digestion resistant fraction of the food.
This scientific session will provide an update on the use and analysis of carbohydrates and dietary fibers in food products, as well as other technical considerations.

CO-CHAIR: **Kommer Brunt,** *Rotating Disc BV*
CO-CHAIR: **Jon DeVries,** *Retired-Medallion Laboratories/ General Mills*
CO-CHAIR: **Xun Yan,** *AMWAY*
- **Kommer Brunt,** *Rotating Disc BV*
  The Functionalities of the Various Carbohydrates Present in Our Daily Food
- **Yannis Vrasidas,** *Eurofins*
  Enzymatic Characterization and Quantification of Non-Starch Polysaccharides in Food: Galactomannan as an Example
- **Barry McCleary,** *Megazyme International Ireland*
  A Rapid Integrated Procedure for Measurement of Total Dietary Fiber
- **David Plank,** *Medallion Laboratories / General Mills*
  Updating the Basic Technologies of Dietary Fiber Analyses

Ten Years of the Food Emergency Response Network (FERN): Integration of Federal, State and Local Laboratories to Improve the National Food Defense and Food Safety System

The Food Emergency Response Network (FERN) has been jointly operated by the Food and Drug Administration (FDA) and the Food Safety and Inspection Service (FSIS) for the past 10 years. Over this time, FERN has significantly increased laboratory capacity and capabilities to respond to food contamination events, both intentional and unintentional. The network currently includes 170 federal, state, and local laboratories. FERN's primary role has been to integrate these laboratories into a network that can detect and identify biological, chemical, and radiological threat agents in food and provide laboratory emergency response and surge capacity. More recently, the network has begun focusing efforts on food safety in addition to food defense. Speakers in this symposium will review FERN activities and successes over the past 10 years from both the federal and state perspective and will attempt to provide some insight into the future direction of FERN.

CO-CHAIR: **Ruiqing Pamboukian,** *U.S. FDA*
CO-CHAIR: **Tom Phillips,** *Maryland Department of Agriculture*
CO-CHAIR: **Marcus Head,** *U.S. Department of Agriculture*

- **Michael McLaughlin,** *U.S. FDA*
  FERN Overview, Ten Years Strong: FDA and USDA Perspective
- **Douglas Heitkemper,** *U.S. FDA*
  FERN Methods and Ongoing Method Development and Validation Activities
- **Angela Fritzinger,** *Commonwealth of Virginia Division of Consolidated Laboratory Services*
  State Perspective from a FERN Microbiology Laboratory

Understanding Cannabis and the Challenges of Cannabis Testing Laboratories

The cultivation and use of cannabis has brought together an interesting constellation of proponents and debunkers alike. Alliances among scientists, botanists, herbalists, researchers, and regulatory agencies continue to develop and pave a road in unfamiliar territory. As cannabis continues to be decriminalized by many states, legislative bodies recognize a need to regulate, on some level, the cultivation and distribution of medicinal and adult-use marijuana for the benefit of the end-users; consumer safety is paramount. Nationally, there are many laboratories dedicating their resources to cannabis testing. Legislators and regulatory bodies are struggling with differences among analytical testing laboratories, testing methodologies, and the meaningfulness of reported test results. Simply stated, they are looking for standard test methods that are accepted within *and* by the legitimate scientific community. This session will briefly introduce the chemistry of cannabis, provide an overview of current regulatory requirements, and broadly discuss analytical testing currently employed within the recreational and medical marijuana industries. Most importantly, we will start the inevitable discussion about official test methods for the cannabis industry. We would like to establish the ground-work for discussion among scientists beginning with questions such as: Do we need to move toward the development of official test methods? If so, how do we navigate the myriad of challenges of a complex plant that is akin to other medicinal/herbal plants? And, how do we do so in a way that balances the needs of states while still recognizing the federal prohibition?

CHAIR: **Susan Audino,** *Audino & Associates, LLC*

- **Susan Audino,** *Audino & Associates, LLC*
  No Longer Just for Hippies: What's the Buzz about Cannabis?
- **Holly Johnson,** *Alkemists Laboratories*
  Weed, Herb, or Medicine?
- **John McKay,** *Waters Corporation*
  Essential Analytical Instrumentation
- **Touraj Shokati,** *TEQ Analytical Labs*
  Challenges of a Testing Laboratory
- **Cynthia Ludwig,** *AOCS*
  Status Update of the Cannabis Industry and Proficiency Testing
- **Roger Brauninger,** *A2LA - American Association for Laboratory Accreditation*
  Importance of Accreditation to Cannabis Testing Laboratories

3:00 pm – 4:30 pm

Analytical Challenges and Reporting Framework of Results in Perspective of Sound Method Performance Requirements

Analytical Methods progressed over time with the need to either obtaining rapid results at early stage of production and/or the need to check commodities for a larger array of substances while recognizing scientific progress addressing these needs. As a result classical single analyte/matrix tend to be displaced with those of a wider scope that serve more than only one purpose such as compliance checking against a limit. Additional purposes can be the use for exposure assessments, which require extended working ranges or multianalyte methods allowing to reduce the analytical effort. Therefore "swiss army knife" like methods are aimed at, requiring often new aspects of validation. This session aims at bringing some light in the challenges analytical chemists face meeting the needs of scientific progress, performance demands as well as applicability demands.

CO-CHAIR: **Joerg Stroka,** *European Commission - JRC - IRMM*
CO-CHAIR: **Susie Y. Dai,** *Office of the Texas State Chemist*

- **Paul Zomer,** *RIKILT - Institute Of Food Safety*
  Analyte Identification Criteria for Mass Spec Based Analytical Methods
- **Ana Gago-Martinez,** *University of Vigo and EURLMB*
  Analytical Challenges in the Transition from the Mouse Bio Assay (MBA) to Chemistry for the Analysis of Marine Biotoxins
- **Joerg Stroka,** *European Commission - JRC - IRMM*
  A Novel Validation Concept Meeting the Need to Test against a Single Level

Roundtable: Progress and Remaining Challenges in the Control of Marine Biotoxins

Increasing knowledge in various aspects of the control of marine biotoxins, particularly the transition from mouse bioassays to chemical methods, prompts more extensive discussions of these important developments as well as challenges that still remain unresolved. In contrast to mouse bioassays, modern chemical methods have the ability for identification, quantitation or even confirmation of the presence of the various toxins, and overall performance continues to advance including higher instrument sensitivity. These method improvements, in addition to improved sample pretreatment protocols are clearly important, however there are critical issues to address in improved toxicological evaluation and risk management, and even new legislation. Although concerted efforts have been made in these areas in the last few years, some unresolved issues need to be addressed. This roundtable will face these issues, in particular analytical aspects of improved methodologies, the need for method harmonization, and for improved toxicological evaluations thru oral feeding studies. Furthermore risk management issues, legislation, and also the impact of these issues on the bivalve fishery industry will be discussed.

CO-CHAIR: **Ana Gago-Martinez,** *University of Vigo and EURLMB*
CO-CHAIR: **James Hungerford,** *U.S. FDA*

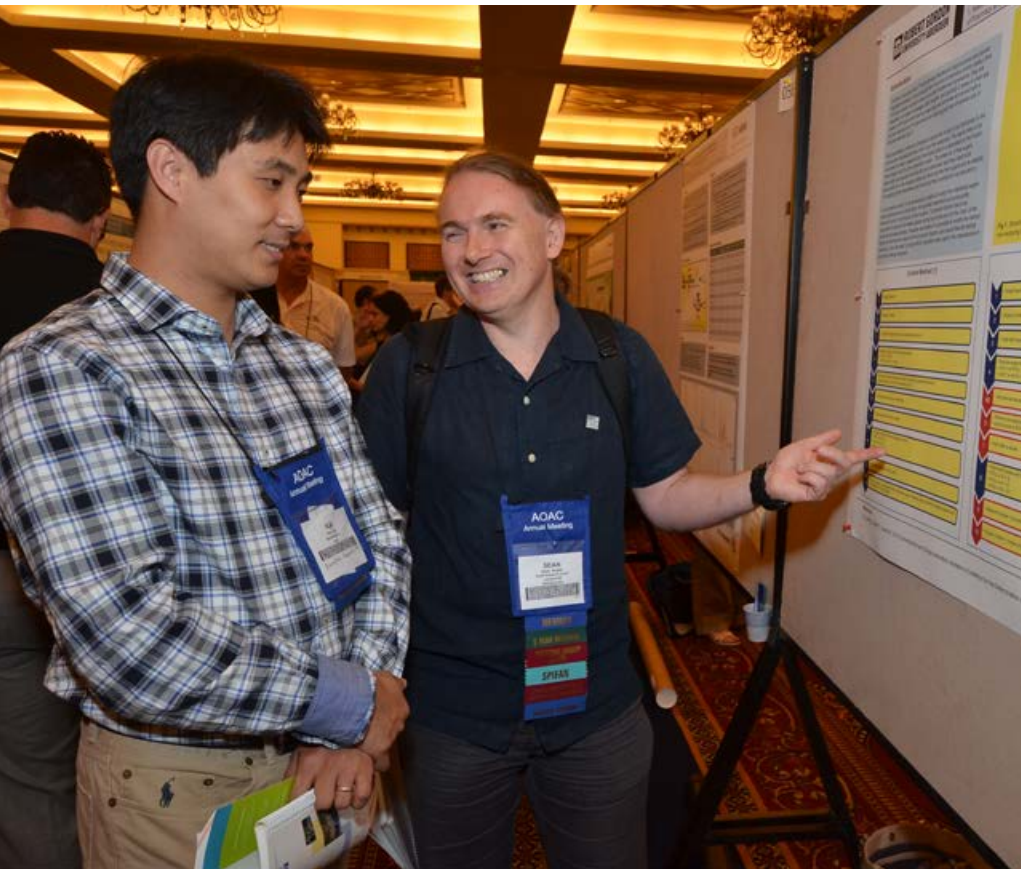
- **Ana Gago-Martinez,** *University of Vigo and EURLMB*
- **James Hungerford,** *U.S. FDA*
- **Pearse McCarron,** *National Research Council Canada*
- **Carlos Ruiz,** *ANFACO, CECOPESCA*
- **Joerg Stroka,** *European Commission - JRC – IRMM*

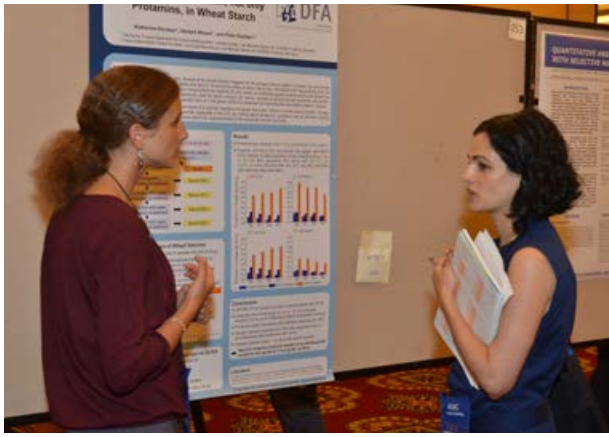
AOAC INTERNATIONAL Stakeholder Panels Update: ISPAM, SPADA, SPDS, SPIFAN, and SPSFAM

AOAC INTERNATIONAL Stakeholder Panels are creating voluntary based consensus based standards meeting industry needs. Attend this session to get an update on each of the stakeholder panels: International Stakeholder Panel on Alternative Methodology (ISPAM), Stakeholder Panel on Agent Detection Assays (SPADA), Stakeholder Panel on Dietary Supplements (SPDS), Stakeholder Panel on Infant Formula and Adult Nutritionals (SPFIAN), and the Stakeholder Panel on Strategic Food Analytical Methods (SPSFAM).

CHAIR: **Jim Bradford,** *AOAC INTERNATIONAL*

POSTER PRESENTATIONS





Poster Presentations feature displays by authors of contributed scientific research papers and include a written and pictorial summary of the author's research. The "Author Presentations" time slots provide an opportunity for attendees to meet and interact with the authors. Poster Presentations will be presented in topical areas as follows:

MONDAY, SEPTEMBER 28, 2015

Poster Viewing	**12:00pm–5:00pm**
Author Presentations	**12:00pm–1:00pm**

- Detection and Measurement of Natural Toxins
- Food Nutrition and Food Allergens
- General Methods, Quality Assurance and Accreditation

TUESDAY, SEPTEMBER 29, 2015

Poster Viewing	**10:00am–5:00pm**
Author Presentations	**12:00pm–1:00pm**

- Analysis of Foodborne Contaminants and Residues
- Authenticity
- Cosmetics and Color Additives
- Emerging Issues in Food Safety and Security
- Microbiological Methods

WEDNESDAY, SEPTEMBER 30, 2015

Poster Viewing	**10:00am–5:00pm**
Author Presentations	**12:00pm–1:00pm**

Poster Topics:

- Analysis of Non-Foodborne Contaminants and Residues
- Botanicals and Dietary Supplements
- *Performance Tested Methods*℠
- Water and Wastewater Analysis

Scientific abstracts for all papers will be included in the *Final Program* that will be distributed at the Annual Meeting.

Posters represent an important method of exchanging scientific information and findings from the latest research studies, but it is important to note that AOAC INTERNATIONAL has no responsibility for the accuracy of the information presented. Posters do not undergo review for quality, and, furthermore, they should not be construed to represent AOAC's position on any analytical technique. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

MONDAY, SEPTEMBER 28, 2015

Poster Viewing: **12:00 pm – 5:00 pm**
Author Presentations: **12:00 pm – 1:00 pm**

Detection and Measurement of Natural Toxins

Aflatoxins Analysis in Peanut Butter Using QuEChERS Sample Preparation with LC/MS/MS Analysis

PRESENTER: Yin Ling Chew, Shimadzu, Singapore
CO-AUTHORS: J. Xing, Z. Ting, Z. Zhan, Shimadzu, Singapore; J. Lee, Nanyang Technological University, Singapore; R. Clifford, Shimadzu Scientific Instruments, Incorporated, Columbia, MD, USA

Enzymatic Quantification of Histamine in Cheese

PRESENTER: Sigrid Haas-Lauterbach, R-Biopharm AG, Darmstadt, Germany
CO-AUTHORS: M. Lacorn, G. Garrido, S. Lindeke, N. Nouri, R-Biopharm AG, Darmstadt, Germany

Decoloration of Wine and Subsequent Enzymatic Quantification of Histamine

PRESENTER: Markus Lacorn, R-Biopharm AG, Darmstadt, Germany
CO-AUTHORS: S. Lindeke, G. Garrido, R-Biopharm AG, Darmstadt, Germany; G. Rodríguez, A. Hernández, Laboratorio Arbitral Agroalimentario, Madrid, Spain

Validation of a Method for the Analysis of Citrinin in Cereals Using Immunoaffinity Columns

PRESENTER: Elaine Marley, R-Biopharm Rhône Limited, Glasgow, UK
CO-AUTHORS: D. Leeman, C. Milligan, R-Biopharm Rhône Limited, Glasgow, UK

Multi-Toxin Analysis Using Immunoaffinity Column Cleanup for a Range of Samples Prior to LC/MS/MS Detection

PRESENTER: Elaine Marley, R-Biopharm Rhône Limited, Glasgow, UK
CO-AUTHORS: J. Wilcox, D. Leeman, C. Milligan, R-Biopharm Rhône Limited, Glasgow, UK

T-2/HT-2 Toxin Analysis of the Major Parameter Oats: A Successful Approach with an Organic Solvent-Free Toxin Extraction

PRESENTER: Ronald Niemeijer, R-Biopharm AG, Darmstadt, Germany
CO-AUTHORS: M. Fischer, W. Lübbe, M. Mättner, R-Biopharm AG, Darmstadt, Germany

Analysis of Distribution of Phytochemicals in Biological Samples by Using MALDI Imaging Mass Spectrometery

PRESENTER: Robert Classon, Shimadzu Scientific, Columbia, MD, USA
CO-AUTHORS: Y. Fujimura, J. Nakamura, T. Ichinose, Y. Kim, H. Tachibana, H. Wariishi, D. Miura, Kyushu University, Kyushu, Japan; M. Sasaki, Y. Unno, K. Ogata, Shimadzu Corporation Ltd., Kyoto, Japan

Aflatoxin B_1 Immunoassay Using Microfluidic Paper-Based Analytical Devices

PRESENTER: Lori Shayne Alamo Busa, Hokkaido University, Sapporo, Hokkaido, Japan
CO-AUTHORS: M. Maeki, A. Ishida, H. Tani, M. Tokeshi, Hokkaido University, Sapporo, Hokkaido, Japan

Food Nutrition and Food Allergens

Simultaneous Detection and Quantitation of Multiple Food Allergens Using Multi-Analyte Profiling (xMAP®) Technology

PRESENTER: Chung Cho, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD, USA
CO-AUTHORS: W. Nowatzke, K. Oliver, Radix BioSolutions, Georgetown, TX, USA; E. Garber, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD, USA

The Presence of Undeclared Food Allergens in Cumin

PRESENTER: Chung Cho, U.S. Food and Drug Administration, College Park, MD, USA
CO-AUTHORS: C. Parker, S. Handy, R. Panda, G. Ziobro, E. Garber, U.S. Food and Drug Administration, College Park, MD, USA; M. Samadpour, IEH Laboratories and Consulting Group, Incorporated, Lake Forest Park, WA, USA; D. Reynaud, Authen-Technologies LLC, Richmond, CA, USA

POSTER PRESENTATIONS

Survey of Undeclared Egg Allergen Levels in the Most Frequently Recalled Food Types (Including Products Bearing Precautionary Labeling)
PRESENTER: Sefat E.H. Khuda, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, Laurel, MD, USA
CO-AUTHORS: K. Williams, G. Sharma, D. Gaines, A. Do, M. Pereira, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, Laurel, MD, USA; M. Chang, University of Maryland, College Park, MD, USA

Direct Carbohydrate Analysis in Beverages and Food Using Pulsed Amperometric and Charged Aerosol Detection
PRESENTER: Deepali Mohindra, Thermo Fisher Scientific, Sunnyvale, CA, USA
CO-AUTHORS: Q. Zhang, B. Bruce Bailey, M. Plante, I. Acworth, Thermo Fisher Scientific, Chelmsford, MA, USA

Accelerated Stability–How We Interpret the Data
PRESENTER: Xun Yan, AMWAY, Ada, MI, USA

Accurate Measurement of Soya Proteins in Food by ELISA
PRESENTER: Sigrid Haas-Lauterbach, R-Biopharm AG, Darmstadt, Germany
CO-AUTHORS: M. Lacorn, S. Siebeneicher, T. Weiss, U. Mälzer, T. Dubois, R-Biopharm AG, Darmstadt, Germany

Determination of Vitamin C in NIST Food-Matrix Standard Reference Materials
PRESENTER: Jeanice Thomas, National Institute of Standards and Technology, Gaithersburg, MD, USA
CO-AUTHOR: W. Lee, University of Maryland, Gaithersburg, MD, USA

LC/MS/MS Detection of Peanut and Almond Allergens in Spices
PRESENTER: Christopher Borton, SCIEX, Redwood City, CA, USA
CO-AUTHORS: L. New, SCIEX, Singapore; H. Liu, SCIEX, Redwood City, CA, USA; A. Schreiber, SCIEX, Concord, ON, Canada

Going Against the Grain: Using Targeted Proteomics for Gluten Quantification and Wheat Detection
PRESENTER: Michelle Colgrave, CSIRO, Brisbane, QLD, Australia
CO-AUTHORS: K. Byrne, H. Goswami, CSIRO, Brisbane, QLD, Australia; M. Blundell, G. Tanner, C. Howitt, CSIRO, Canberra, ACT, Australia

Measurement of Lactose in "Lactose Free" Milk and Milk Products
PRESENTER: Barry McCleary, Megazyme, Bray, Co. Wicklow, Ireland
CO-AUTHOR: I. Lazewska, Megazyme, Bray, Co. Wicklow, Ireland

Measurement of β-glucan in Mushroom Products
PRESENTER: Barry McCleary, Megazyme, Bray, Co. Wicklow, Ireland
CO-AUTHOR: A. Draga, Megazyme, Bray, Co. Wicklow, Ireland

Analysis of Vitamin B Complex in Infant Formula Samples by LC/MS/MS
PRESENTER: Matthew Noestheden, SCIEX, Concord, ON, Canada
CO-AUTHORS: S. Tai, SCIEX, Singapore; A. Schreiber, SCIEX, Concord, ON, Canada

Simple Quality Control Qualification of FD&C Colors from Sport Drinks and Fruit Juice Beverages Using Automated Solid-Phase Extraction and a Portable Spectrometer
PRESENTER: Chris Shevlin, Horizon Technology, Salem, NH, USA
CO-AUTHORS: P. Doolittle, University of Wisconsin-Madison, Madison, WI, USA; Z. Grosser, Horizon Technology, Salem, NH, USA; I. Ivanovic, Avantor Performance Materials B.V., Deventer, Netherlands

Rapid Determination of Protein Content in Protein Powder Finished Product Using Near-Infrared (NIR)
PRESENTER: Roney Christian, Herbalife International of America Incorporated, Lake Forest, CA, USA
CO-AUTHORS: Y. Zhang, K. He, P. Ingle, P. Chang, G. Swanson, Herbalife International of America Incorporated, Torrance, CA, USA; P. Purohit, V. Zarraga, Q. Gao, Herbalife International of America Incorporated, Lake Forest, CA, USA

Cannabinoid Quantification from Cannabis-Infused Food: Optimization with Custom Buffer Solutions

PRESENTER: Thomas Grace, Bia Diagnostics LLC, Colchester, VT, USA

CO-AUTHORS: M. McHenry, K. Freeman, Nutraceutical Science Laboratories, Montpelier, VT, USA; R. Grace, Bia Diagnostics LLC, Colchester, VT, USA

Evaluation of a New ELISA Method for Detecting Neat and Processed Almond Protein in a Variety of Complex Matrices Manufactured by Elution Technologies

PRESENTER: Thomas Grace, Bia Diagnostics LLC, Colchester, VT, USA

CO-AUTHORS: L. Mason, A. Bouchard, J. Boghosian, Bia Diagnostics LLC, Colchester, VT, USA

Evaluation of a New ELISA Method for Detecting Neat and Processed Egg Protein in a Variety of Complex Matrices Manufactured by Elution Technologies

PRESENTER: Thomas Grace, Bia Diagnostics LLC, Colchester, VT, USA

CO-AUTHORS: L. Mason, A. Bouchard, J. Boghosian, Bia Diagnostics LLC, Colchester, VT, USA

Evaluation of a New ELISA Method for Detecting Neat and Processed Soya Protein in a Variety of Complex Matrices Manufactured by Elution Technologies

PRESENTER: Thomas Grace, Bia Diagnostics LLC, Colchester, VT, USA

CO-AUTHORS: L. Mason, A. Bouchard, J. Boghosian, Bia Diagnostics LLC, Colchester, VT, USA

Evaluation of a New ELISA Method for Detecting Neat and Processed Bovine Milk Proteins in a Variety of Complex Matrices Manufactured by Elution Technologies

PRESENTER: Thomas Grace, Bia Diagnostics LLC, Colchester, VT, USA

CO-AUTHORS: L. Mason, A. Bouchard, J. Boghosian, Bia Diagnostics LLC, Colchester, VT, USA

General Methods, Quality Assurance, and Accreditation

Chiral High-Performance Liquid Chromatographic Method for Determination of Nadolol Enantiomers in Capsules

PRESENTER: Grazielle Prado Alexandre, University of São Paulo, São Paulo, Brazil

CO-AUTHORS: K. Sakiara, D. Padeiro, V. Tavares, United States Pharmacopeia, São Paulo, Brazil; H. Leite, M. Prado, E. Hackmann, A. Singh, M. Santoro, University of São Paulo, São Paulo, Brazil

Ash in Animal Feed: AOAC *Official Method*℠ 942.05 Revisited

PRESENTER: Nancy Thiex, Thiex Laboratory Solutions, Brookings, SD, USA

CO-AUTHORS: L. Novotny, South Dakota Agricultural Laboratories, Brookings, SD, USA; A. Crawford, Crawford Science Consulting, Hacienda Heights, CA, USA

Analysis of Gardenia Blue in Foods by Thin-Layer Chromatography (TLC)

PRESENTER: Sayuri Matsuyama, Kinjo Gakuin University, Nagoya, Japan

CO-AUTHORS: H. Oka, Kinjo Gakuin University, Nagoya, Japan; K. Furuya, T. Morimoto, San-Ei Gen F.F.I., Incorporated, Toyonaka, Japan

Simultaneous Analysis of Anthocyanin Colorings in Foods by Thin-Layer Chromatography Using Identification with Alkaline Spray Solutions

PRESENTER: Hisao Oka, Kinjo Gakuin University, Nagoya, Japan

CO-AUTHORS: T. Morimoto, San-Ei Gen F.F.I., Incorporated, Toyonaka, Japan; Y. Yoshimi, A. Takeda, K. Nasu, College of Pharmacy, Kinjo Gakuin University, Nagoya, Japan

Determination of Arsenic, Cadmium, Mercury, and Lead in Raw Ingredients and Nutritional Products by Inductively Coupled Plasma-Mass Spectrometry

PRESENTER: Lawrence Pacquette, Abbott Nutrition, Columbus, OH, USA

CO-AUTHOR: A. Anumula, Abbott Nutrition, Bangalore, India

POSTER PRESENTATIONS

Agrochemical Distribution and Mobility in Plants Elucidated by Three-Dimensional (3-D) Imaging with LAESI-MS
PRESENTER: Sergio Nanita, DuPont Crop Protection, Newark, DE, USA

Associations Working to Increase the Number of Accredited Governmental Food and Feed Testing Laboratories for an Integrated Food/Feed Safety System
PRESENTER: Yvonne Salfinger, Association of Public Health Laboratories and Association of Food and Drug Officials, Denver, CO, USA
CO-AUTHORS: K. Larson, Association of Public Health Laboratories, Silver Spring, MD, USA; N. Thiex, American Association of Feed Control Officials, Brookings, SD, USA

The Rapid Analysis of Na, K, and Ca in Less than Five Minutes
PRESENTER: Cindy R. Moser, CEM Corporation, Matthews, NC, USA
CO-AUTHOR: A. Jennings, CEM Corporation, Matthews, NC, USA

Automatic Analysis of Sugars Using Discrete Analyzers
PRESENTER: Leala Thomas, Thermo Scientific, Sunnyvale, CA, USA
CO-AUTHORS: M. Kiviluoma, L. Kaski, A. Suoniemi-Kahara, M. Karppelin, Thermo Scientific, Vantaa, Finland

Rapid Analysis of Acids in Wine Using Automated Discrete Analyzers
PRESENTER: Leala Thomas, Thermo Scientific, Sunnyvale, CA, USA
CO-AUTHORS: M. Kiviluoma, L. Kaski, A. Suoniemi-Kahara, S. Hartikainen, Thermo Scientific, Vantaa, Finland

New Chromogenic Oligosaccharide Substrates for the Measurement of Polysaccharide Endo-Hydrolases
PRESENTER: Barry McCleary, Megazyme, Bray, Co. Wicklow, Ireland
CO-AUTHORS: D. Mangan, V. McKie, R. Ivory, Megazyme, Bray, Co. Wicklow, Ireland

Development and Validation of New Rapid Detection Methods for eCry3.1Ab in Maize
PRESENTER: Donna Houchins, Romer Labs, Incorporated, Union, MO, USA

Studies on B_{12} Raw Material Stability and pH Effect of Excipient in Trituration Process Using Multiple Analytical Techniques (HPLC, LC/MS/MS, UV-Vis, and ICP/MS)
PRESENTER: Gary Swanson, Herbalife International of America Incorporated, Torrance, CA, USA
CO-AUTHORS: P. Chang, S. Babajanian, V. Ritruthai, M. Nicholson, Y. Bai, A. Shappi, Q. Gao, Herbalife International of America Incorporated, Torrance, CA, USA

Quantitation of Maltodextrin in Botanical Extracts Raw Ingredients Using Proton NMR
PRESENTER: Quanyin Gao, Herbalife International of America Incorporated, Lake Forest, CA, USA
CO-AUTHORS: I. Lee, P. Purohit, V. Zarraga, Herbalife International of America Incorporated, Lake Forest, CA, USA; Y. Zhang, K. He, P. Ingle, P. Chang, G. Swanson, Herbalife International of America Incorporated, Torrance, CA, USA

TDRM/AOAC Reference Materials-Methods Database
PRESENTER: Wayne Wolf, Agricultural Research Service (Retired), Brookeville, MD, USA
CO-AUTHOR: D. Zink, AIM Research Enterprises, Carthage, MO, USA

Performance of FT-NIR for Quantitative Analysis of Fluid Milk, Cream, and Whey Samples Relative to AOAC Methods
PRESENTER: Dean Roberts, Bruker Optics, Incorporated, Madison, WI, USA
CO-AUTHOR: C. Larkin, Bruker Optics, Incorporated, Sacramento, CA, USA

Calibration-Free FT-NIR for Product Conformity Testing of Prepared Food Products
PRESENTER: Dean Roberts, Bruker Optics, Incorporated, Madison, WI, USA
CO-AUTHOR: C. Larkin, Bruker Optics, Incorporated, Sacramento, CA, USA

TUESDAY, SEPTEMBER 29, 2015

Poster Viewing: **10:00 am – 5:00 pm**
Author Presentations: **12:00 pm – 1:00 pm**

Analysis of Foodborne Contaminants and Residues

Towards a Future Standard Method for the Determination of Monomethylmercury in Seafood

PRESENTER: Stig Valdersnes, National Institute of Nutrition and Seafood Research (NIFES), Bergen, Norway
CO-AUTHORS: P. Fecher, Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit, Erlangen, Germany; A. Maage, K. Julshamn, National Institute of Nutrition and Seafood Research, Bergen, Norway

Determination of Heavy Metals in Food: AOAC First Action Method 2015.01

PRESENTER: Michelle L. Briscoe, Brooks Rand Labs, Seattle, WA, USA
CO-AUTHORS: T. Ugrai, A. Carter, Brooks Rand Labs, Seattle, WA, USA

Improving the Consistency and Accuracy of Tetracyclines Regulatory Laboratory Testing of Contaminated Beef, Chicken, and Cow's Milk with Simple Automation and New Consumables Technology

PRESENTER: Chris Shevlin, Horizon Technology, Salem, NH, USA
CO-AUTHORS: Z. Grosser, Horizon Technology, Salem, NH, USA; C. Hedman, Wisconsin State Laboratory of Hygiene, Madison, WI, USA; R. Buco, R. Koeritz, Z. Lilla, Shimadzu Scientific Instruments, Incorporated, Marlborough, MA, USA

Improving the Analysis of Phenylurea Herbicides in Drinking Water and Soft Drinks Using Automated Solid-Phase Extraction as a Preparation for HPLC-UV Analysis

PRESENTER: Chris Shevlin, Horizon Technology, Salem, NH, USA
CO-AUTHORS: W. Jones, Horizon Technology, Salem, NH, USA; R. Buco, R. Koeritz, Z. Lilla, Shimadzu Scientific Instruments, Incorporated, Marlborough, MA, USA

Speciation of As(III) and As(V) in Fruit Juices by Dispersive Liquid–Liquid Microextraction and Hydride Generation-Atomic Fluorescence Spectrometry

PRESENTER: Guoying Chen, U.S. Department of Agriculture, Agricultural Research Service, Wyndmoor, PA, USA
CO-AUTHORS: G. Lai, Meizhouwan Vocational Technology College, Putian, Fujian, China; T. Chen, Fujian Agriculture and Forestry University, Fuzhou, Fujian, China

Determination of Antimony in Breakfast Tea Using Spectroscopic Methods

PRESENTER: Robert Classon, Shimadzu Scientific, Columbia, MD, USA
CO-AUTHORS: J. Knoop, M. Egelkraut-Holtus, M. Ortlieb, U. Oppermann, Shimadzu Europa GmbH, Duisburg, Germany; A. van Oyen, CARAT GmbH, Bocholt, Germany

Spectroscopic Analysis of Wines for Authenticity and Trichloroanisole (TCA) Contamination

PRESENTER: Robert Classon, Shimadzu Scientific, Columbia, MD, USA
CO-AUTHORS: U. Oppermann, J. Knoop, Shimadzu Europa GmbH, Duisburg, Germany; A. van Oyen, CARAT GmbH, Bocholt, Germany

Analysis of Patulin in Apple-Mango Thick Juice and Multifruit and Grapefruit Concentrates Using Molecularly Imprinted Polymers-Based SPE

PRESENTER: Kaynoush Naraghi, AFFINISEP, Val de Reuil, Normandy, France
CO-AUTHORS: K. Naraghi, M. Arotcarena, S. Bayoudh, AFFINISEP, Val de Reuil, Normandy, France

Comparison of Soxhlet and Accelerated Solvent Extraction (ASE) for Leachable and Extractable Analysis of Packing Material

PRESENTER: Hua Yang, Thermo Fisher Scientific, Sunnyvale, CA, USA
CO-AUTHORS: K. Comstock, Thermo Fisher Scientific, San Jose, CA, USA; L. Lopez, Thermo Fisher Scientific, Sunnyvale, CA, USA

POSTER PRESENTATIONS

Authenticity

Analysis of Commercial Honeys for Corn Syrup Adulteration by FTIR Spectroscopy

PRESENTER: Robert H. Clifford, Shimadzu Scientific, Columbia, MD, USA

CO-AUTHORS: J. Head, M. Talbott, Shimadzu Scientific Instruments, Incorporated, Columbia, MD, USA

Checking for Meat Authenticity Using Targeted LC/MS/MS Analysis

PRESENTER: Alan Barnes, Shimadzu Manchester, UK, Milton Keynes, Buckinghamshire, UK

CO-AUTHORS: N. Loftus, Shimadzu Manchester, UK, Milton Keynes ,Buckinghamshire, UK ; J. Lida, Shimadzu Corporation Ltd., Kyoto, Japan; R. Clifford, Shimadzu Scientific Instruments, Incorporated, Columbia, MD, USA

Homogenous Bioluminescent Assay as an Effective Screening Tool for Dietary Supplements Adulterated with cGMP-Phosphodiesterase 5 Inhibitors

PRESENTER: Said Goueli, Promega Corporation, Madison, WI, USA

CO-AUTHORS: A. Bzhelyansky, U.S. Pharmacopeia (USP), Rockville, MD, USA; K. Hsiao, Promega Corporation, Madison, WI, USA

Determination of Chloride and Fluoride in Infant Formula and Adult Nutritionals

PRESENTER: Manali Aggrawal, Thermo Fisher Scientific, Sunnyvale, CA, USA

CO-AUTHOR: J. Rohrer, Thermo Fisher Scientific, Sunnyvale, CA, USA

Detection of Economic Adulteration of Lemon Juice by Isotope Ratio Mass Spectroscopy

PRESENTER: Madhavi Mantha, Forensic Chemistry Center, Cincinnati, OH, USA

CO-AUTHOR: K. Kubachka, Forensic Chemistry Center, Cincinnati, OH, USA

Rapid Evaporative Ionization Mass Spectrometry (REIMS) for the Discrimination of Different Species of Meat and Fish

PRESENTER: Sara L. Stead, Waters Corporation, Wilmslow, Cheshire, UK

CO-AUTHORS: S. Hird, J. Balog, S. Pringle, R. Rao, Waters Corporation, Wilmslow, Cheshire, UK

Food Provenance Confirmation by Combined LC/MS, GC/MS, and ICP-MS Chemometrics

PRESENTER: Robert Packer, PerkinElmer, Incorporated, Shelton, CT, USA

CO-AUTHOR: C. Stacey, PerkinElmer, Incorporated, Waltham, MA, USA

Determination of the Geographic Origin of Green Coffee Using Elemental Analysis and Stable Isotope Ratios

PRESENTER: Courtney Tanabe, University of California-Davis, Davis, CA, USA

CO-AUTHORS: J. Nelson, G. Gilleland, Agilent Technologies, Incorporated, Santa Clara, CA, USA; S. Ebeler, M. Rosenberg, University of California-Davis, Davis, CA, USA

Cosmetics and Color Additives

Analysis of Illegal Sudan and Para Red Dyes in Eggs by LC/MS/MS

PRESENTER: Rashi Kochhar, Shimadzu Analytical (India) Pvt. Ltd., Mumbai, India

CO-AUTHORS: S. Rane, S. Raju, D. Bhandarkar, S. Damale, A. Datar, J. Kelkar, P. Rasam, Shimadzu Analytical (India) Pvt. Ltd., Mumbai, India; S. Chopra, R. Clifford, Shimadzu Scientific Instruments, Incorporated, Columbia, MD, USA

Determination of Intermediates and Subsidiary Colors in D&C Red Nos. 6 and 7 and Their Lakes Using Ultra-Performance Liquid Chromatography

PRESENTER: Bhakti Petigara Harp, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD, USA

CO-AUTHORS: M. Perez-Gonzalez, N. Vu, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD, USA

Identification of Pigments in Tattoo Inks by X-Ray Powder Diffraction and Raman Spectroscopy

PRESENTER: Marianita Perez-Gonzalez, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD, USA

CO-AUTHORS: B. Yakes, B. Petigara Harp, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD, USA

Evaluation of Prohibited Dyes in Food: By an Automated Extraction
PRESENTER: Tyler Trent, Teledyne Tekmar, Mason, OH, USA
CO-AUTHOR: T. Hartlien, Teledyne Tekmar, Mason, OH, USA

Emerging Issues in Food Safety and Security

Representative Sampling for Food and Feed Materials: A Critical Need for Food/Feed Safety
PRESENTER: Nancy Thiex, Thiex Laboratory Solutions LLC, Brookings, SD, USA
CO-AUTHORS: C. Paoletti, European Food Safety Authority, Parma, Italy; K. Esbensen, Geological Survey of Denmark and Greenland (GEUS), Copenhagen, Denmark

LC/MS/MS Detection of Pesticide 1080 (Sodium Fluoroacetate) in Milk and Infant Formula
PRESENTER: Matthew Noestheden, SCIEX, Concord, ON, Canada
CO-AUTHOR: A. Schreiber, SCIEX, Concord, ON, Canada

A Simple Analysis of 4-Methylimidizole Using Automated Solid-Phase Extraction and High-Performance Liquid Chromatography with UV Detection
PRESENTER: Chris Shevlin, Horizon Technology, Salem, NH, USA
CO-AUTHORS: R. Buco, R. Koeritz, Z. Lilla, Shimadzu Scientific Instruments, Incorporated, Marlborough, MA, USA

Multielement Analysis of Milk and Milk Powder Using an Agilent 7900 ICP-MS
PRESENTER: Courtney Tanabe, University of California-Davis, Davis, CA, USA
CO-AUTHORS: C. Jones, J. Nelson, Agilent Technologies, Incorporated, Santa Clara, CA, USA; S. Ebeler, University of California-Davis, Davis, CA, USA

Total and Speciation Analysis of Arsenic in California Wines by MP-AES and ICP-MS
PRESENTER: Courtney Tanabe, University of California-Davis, Davis, CA, USA
CO-AUTHORS: J. Nelson, Agilent Technologies, Incorporated, Davis, CA, USA; K. Kubachka, U.S. Food and Drug Administration, Cincinnati, OH, USA; G. Gilleland, Agilent Technologies, Incorporated, Santa Clara, CA, USA; S. Ebeler, University of California-Davis, Davis, CA, USA

Analysis of Estrogens Compounds, a Class of Endocrine Disrupting Chemicals Using Solid-Phase Extraction Based on Molecularly Imprinted Polymer for Selective Extraction
PRESENTER: Kaynoush Naraghi, AFFINISEP, Val de Reuil, Normandy, France
CO-AUTHORS: K. Naraghi, M. Arotcarena, S. Bayoudh, AFFINISEP, Val de Reuil, France; S. Rochereau, E. Bichon, B. Le Bizec, Oniris, Nantes, France

Advanced Automated Flash Column Chromatography for Rapid Front End Sample Cleanup of Cannabis-Infused Edibles
PRESENTER: James Neal-Kababick, Flora Research Laboratories, Grants Pass, OR, USA
CO-AUTHORS: J. Marcu, Green Standard Diagnostics Incorporated, Las Vegas, NV, USA; M. Wilcox, M. Jacyno, Grace Discovery Sciences, Deerfield, IL, USA; W. Kim, Flora Research Laboratories, Grants Pass, OR, USA

Microbiological Methods

Rapid and Sensitive Enumeration of Bacteria and Bacterial Spores by Non-Lytic ATP Elimination and Bioluminescent Detection
PRESENTER: Said Goueli, Promega Corporation, Madison, WI, USA
CO-AUTHOR: S. Mondal, Promega Corporation, Madison, WI, USA

Development of a Method for Detection of Shiga Toxin-Producing *Escherichia coli* (STEC) in Fruits, Vegetables, and Ready-to-Eat Meats Using Real-Time Multiplex PCR
PRESENTER: Anli Gao, University of Guelph, Guelph, ON, Canada
CO-AUTHORS: J. Fischer-Jenssen, C. Cooper, S. Lee, C. Leon-Velarde, H. Li, J. Li, S. Chen, P. Martos, University of Guelph, Guelph, ON, Canada

Streamlined Food Pathogen DNA Extraction Using a Small Benchtop Automated Instrument
PRESENTER: Brad Hook, Promega Corporation, Fitchburg, WI, USA
CO-AUTHORS: T. Schagat, C. Moreland, Promega Corporation, Fitchburg, WI, USA

POSTER PRESENTATIONS

Development of a Novel Loop-Mediated Isothermal Amplification (LAMP) Assay for the Detection of *Salmonella Enteritidis* from Egg Products

PRESENTER: Lijun Hu, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD, USA

CO-AUTHORS: L. Ma, Oklahoma State University, Stillwater, OK, USA; T. Hammack, E. Brown, G. Zhang, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD, USA

Detection of *Salmonella* from Shell Eggs by Loop-Mediated Isothermal Amplification (LAMP) Assay

PRESENTER: Guodong Zhang, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD, USA

CO-AUTHORS: L. Hu, E. Brown, T. Hammack, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD, USA; L. Ma, Oklahoma State University, Stillwater, OK, USA

Rapid Detection of Low Numbers of Sub-Lethally Injured *Salmonella* in Cocoa-Derived Products

PRESENTER: Melissa Buzinhani, FoodChek Systems Incorporated, Saint-Hyacinthe, QC, Canada

CO-AUTHORS: C. St. Laurent, R. Tremblay, S. Olishevskyy, FoodChek Systems Incorporated, Saint-Hyacinthe, QC, Canada; M. Wallace, DuPont Qualicon, Wilmington, DE, USA; M. Giuffre, FoodChek Systems Incorporated, Calgary, AB, Canada

WEDNESDAY, SEPTEMBER 30, 2015

Poster Viewing: **10:00 pm – 5:00 pm**
Author Presentations: **12:00 pm – 1:00 pm**

Analysis of Non-Foodborne Contaminants and Residues

Screening for Hundreds of Pesticide Residues in Foods Using a GC/Q-TOF and an Exact Mass Pesticide Library

PRESENTER: Philip Wylie, Agilent Technologies, Wilmington, DE, USA

CO-AUTHORS: J. Riener, Agilent Technologies, Waldbronn, BW, Germany; W. Wang, Agilent Technologies China Ltd., Beijing, China; S. Royce, Agilent Technologies, Kingston, NH, USA

Screening Medical Marijuana for Pesticides by GC-MS/MS

PRESENTER: Di Wang, Shimadzu Scientific, Columbia, MD, USA

CO-AUTHORS: L. Chambers, W. Lipps, Z. Wang, R. Clifford, Shimadzu Scientific Instruments, Incorporated, Columbia, MD, USA

A New Simple Validated UPLC/MS/MS Method for the Analysis of Veterinary Drug Residues in Dog Hair

PRESENTER: Thanh Duong, Merial Limited, North Brunswick, NJ, USA

CO-AUTHORS: A. Khunachak, J. Yanez, L. Letendre, Merial Limited, North Brunswick, NJ, USA; B. Fankhauser, Merial Limited, Duluth, GA, USA

A Sensitive Method for Direct Analysis of Impurities in Apramycin and Other Aminoglycoside Antibiotics Using Hydrophilic Interaction Liquid Chromatography and Charged Aerosol Detection

PRESENTER: Deepali Mohindra, Thermo Fisher Scientific, Sunnyvale, CA, USA

CO-AUTHORS: Z. Long, Q. Zhang, Y. Jin, L. Liang, Thermo Fisher Scientific, Beijing, China; I. Acworth, B. Bailey, Thermo Fisher Scientific, Chelmsford, MA, USA; E. Sneekes, F. Steiner, Thermo Fisher Scientific, Germering, Germany

Simultaneous Analysis of 477 Residual Pesticides in Agricultural Crops Using GC-MS/MS

PRESENTER: Riki Kitano, Shimadzu Corporation Limited, Kyoto, Japan

CO-AUTHORS: M. Takakura, H. Miyagawa, Shimadzu Corporation Limited, Kyoto, Japan; I. Saito, Aichi Science and Technology Foundation, Aichi, Japan; E. Ueno, Aichi Prefectural Institute of Public Health, Nagoya, Japan; S. Chopra, R. Clifford, Shimadzu Scientific Instruments, Incorporated, Columbia, MD, USA

Analysis of Steroids in Milk Using QuEChERS Sample Preparation with LC/MS/MS

PRESENTER: Durvesh Sawant, Shimadzu Analytical (India) Pvt. Limited, Mumbai, India

CO-AUTHORS: R. Kochhar, S. Rane, S. Raju, D. Bhandarkar, S. Damale, A. Datar, J. Kelkar, P. Rasam, Shimadzu Analytical (India) Pvt. Ltd., Mumbai, India; S. Chopra, R. Clifford, Shimadzu Scientific Instruments, Incorporated, Columbia, MD, USA

Research on Polychlorinated Biphenyls (PCBs) in Vegetables by Online GPC-GC/MS

PRESENTER: Xizhi Wang, Shimadzu Co., Ltd., Beijing, China

CO-AUTHORS: S. Luo, F. Tian, J. Fan, G. Yang, T. Huang, Y. Hashi, Shimadzu Co., Ltd., Shanghai, China; S. Kawano, S. Chopra, R. Clifford, Shimadzu Scientific Instruments, Incorporated, Columbia, MD, USA

Increased Sensitivity and Reduced Matrix Interference over Current Pharmacopoeia Methods for 74 Pesticides in Chinese Herbal Medicine Using Online GPC-GC/MS/MS

PRESENTER: Yang Huiyan, Shimadzu Co., Ltd., Shanghai, China

CO-AUTHORS: J. Fan, T. Huang, S. Kawano, Y. Hashi, Shimadzu Co., Ltd., Shanghai, China; S. Chopra, R. Clifford, Shimadzu Scientific Instruments, Incorporated, Columbia, MD, USA

Unique Online SFE-SFC-MS/MS for Pesticides Reduces Sample Preparation and Analysis Time While Increasing Sensitivity and Polarity Range

PRESENTER: Takanari Hattori, Shimadzu Corporation Ltd., Kyoto, Japan

CO-AUTHORS: T. Uchikata, H. Terada, C. Ichikawa, Y. Funada, Shimadzu Corporation Ltd., Kyoto, Japan; R. Clifford, Shimadzu Scientific Instruments, Incorporated, Columbia, MD, USA; Y. Ichiki, Miyazaki Enterprise Promotion Organization, Miyazaki, Japan; M. Sakai, T. Ando, Miyazaki Agricultural Research Institute, Miyazaki, Japan; Y. Izumi, T. Bamba, Kyushu University and Osaka University, Fukuoka, Japan; E. Fukusaki, Osaka University, Osaka, Japan

USDA Approval of R-Biopharm RIDASCREEN® Ractopamine ELISA for Application in Non-Use Ractopamine Program

PRESENTER: Ronald Niemeijer, R-Biopharm AG, Darmstadt, Germany

CO-AUTHORS: T. Czymai, T. Hektor, R-Biopharm AG, Darmstadt, Germany

Simultaneous 5 in 1 Sample Preparation and Multiplexed Automated Analysis by ChemWell® Bioanalyzer of Chloramphenicol and Nitrofuran Metabolites AMOZ, AOZ, AHD, and SEM in Shrimp

PRESENTER: Ronald Niemeijer, R-Biopharm AG, Darmstadt, Germany

CO-AUTHORS: T. Czymai, T. Hektor, R-Biopharm AG, Darmstadt, Germany

Screening for Melamine, Cyanuric Acid, and Dicyandiamine in Powdered Milk and Infant Formula Using Liquid Chromatography with Mass Detection

PRESENTER: Jennifer A. Burgess, Waters Corporation, Milford, MA, USA

CO-AUTHORS: M. Benvenuti, M. Young, G. Cleland, Waters Corporation, Milford, MA, USA

Multi-Compound and Multi-Class Identification and Quantification Using High-Resolution LC/MS/MS

PRESENTER: Andre Schreiber, SCIEX, Concord, ON, Canada

CO-AUTHORS: N. Zhu, SCIEX, Shanghai, China; J. Stahl-Zeng, SCIEX, Darmstadt, Germany

Non-Target and Unknown Screening of Food Samples Using High-Resolution LC/MS/MS

PRESENTER: Lauryn Bailey, SCIEX, Framingham, MA, USA

CO-AUTHORS: A. Schreiber, D. Cox, SCIEX, Concord, ON, Canada

LC/MS/MS Analysis of Perfluoroalkyl Acids in Food and Food Packaging Material: A Migration Study

PRESENTER: Andre Schreiber, SCIEX, Concord, ON, Canada

CO-AUTHORS: L. Krone, Granbury High School, Granbury, TX, USA; K. Hyland, SCIEX, Redwood City, CA, USA

Targeted Multi-Residue LC/MS/MS Method for Sulfonamides and Nitroimidazoles Antibiotics in Honey with LC/MS/MS

PRESENTER: Christopher Borton, SCIEX, Redwood City, CA, USA

CO-AUTHORS: N. Bhasin, P. Joseph, P. Sharma, M. Pillai, SCIEX, Gurgaon, India; J. Dahlmann, SCIEX, Darmstadt, Germany; A. Schreiber, SCIEX, Concord, ON, Canada

POSTER PRESENTATIONS

Identification, Quantitation, and Confirmation of Pesticides in Food Samples Using LC/MS/MS
PRESENTER: Lauryn Bailey, AB SCIEX, Framingham, MA, USA
CO-AUTHORS: A. Schreiber, D. Cox, AB SCIEX, Concord, ON, Canada

Analysis of PAHs in Butter Using Simple Dual-Layer Solid-Phase Extraction Cleanup and GC-MS
PRESENTER: Olga Shimelis, Supelco/Sigma-Aldrich, Bellefonte, PA, USA
CO-AUTHORS: K. Stenerson, Supelco/Sigma-Aldrich, Bellefonte, PA, USA; C. Brown, Kelly Scientific, Richmond, VA, USA

A Novel and High-Precision Analysis of Inorganic Bromide in Botanical Extracts Using GC-MS
PRESENTER: Anindya Pradhan, Eurofins Central Analytical Laboratories, New Orleans, LA, USA
CO-AUTHORS: A. Paga, C. Stephenson, J. Reuther, Eurofins Central Analytical Laboratories, New Orleans, LA, USA

A Novel and Fast Analysis of Phthalates in Oil Matrices by GC-MS/MS
PRESENTER: Anindya Pradhan, Eurofins Central Analytical Laboratories, New Orleans, LA, USA
CO-AUTHORS: R. Callegari, C. Stephenson, J. Reuther, Eurofins Central Analytical Laboratories, New Orleans, LA, USA

Analysis of Chlorate and Perchlorate by LC/MS/MS in Food Products
PRESENTER: Sarah King, Eurofins Central Analytical Laboratories, New Orleans, LA, USA
CO-AUTHORS: C. Stephenson, J. Reuther, Eurofins Central Analytical Laboratories, New Orleans, LA, USA

Detection of Diethyl Yellow Dye Used Illegally in Processed Soy Milk Curd by Coupled LC-Photodiode Array Detection and High-Resolution Orbitrap MS
PRESENTER: Mingchih Fang, Taiwan Food and Drug Administration, Taipei, Taiwan
CO-AUTHORS: C. Tsai, H. Cheng, Taiwan Food and Drug Administration, Taipei, Taiwan

New SPE Cleanup Method and Integrative Passive Sampler (POCIS) Based on Molecularly Imprinted Polymers for Glyphosate and AMPA Analysis
PRESENTER: Kaynoush Naraghi, AFFINISEP, Val de Reuil, Normandy, France
CO-AUTHORS: K. Naraghi, M. Arotcarena, S. Bayoudh, AFFINISEP, Val de Reuil, Normandy, France; B. Claude, L. Amalric, C. Berho, Bureau de Recherches Géologiques et Minières (BRGM), Orleans, France; P. Morin, Institut de Chimie Organique et Analytique (ICOA)-Université d'Orléans, Orleans, France

Rapid Screening of Natural and Synthetic Estrogens and Steroids in Milk Using Gas Chromatography-Tandem Mass Spectrometry (GC-MS/MS)
PRESENTER: Jason Tang, NSF International, Ann Arbor, MI, USA
CO-AUTHORS: T. Baker, K. LeVanseler, NSF International, Ann Arbor, MI, USA

Multiresidue Analysis of β-agonists in Bovine Liver and Muscle Using HPLC/MS/MS
PRESENTER: Zohra Olumee-Shabon, U.S. Food and Drug Administration, Center for Veterinary Medicine, Laurel, MD, USA
CO-AUTHOR: U. Opathakankanamgedon, U.S. Food and Drug Administration, Center for Veterinary Medicine, Laurel, MD, USA

Botanicals and Dietary Supplements

Analysis of 32 Synthetic PDE-5 Inhibitors Drugs and Analogues Adulterated in Health Supplements by LC/MS/MS
PRESENTER: Zhu Sun, Shimadzu, Singapore
CO-AUTHORS: J. Xing, Z. Zhan, Shimadzu, Singapore; D. Dinash Aravind, National Pharmaceutical Control Bureau, Jalan University, Selangor, Malaysia; R. Clifford, Shimadzu Scientific Instruments, Incorporated, Columbia, MD, USA

A Novel Strategy to Screen and Profile Steviol Glycosides of Natural Sweeteners in Food Using Microfluidic UPLC Ion Mobility
PRESENTER: Gareth Cleland, Waters Corporation, Milford, MA, USA
CO-AUTHORS: M. McCullagh, D. Douce, R. Rao, Waters Corporation, Wilmslow, Cheshire, UK; S. Goscinny, Scientific Institute of Public Health (WIV-ISP), Brussels, Belgium

Determination of Pyrethrins in Pyrethrum Oil Extracts

PRESENTER: Deepali Mohindra, Thermo Fisher Scientific, Sunnyvale, CA, USA

CO-AUTHORS: D. Thomas, I. Acworth, Thermo Fisher Scientific, Chelmsford, MA, USA; A. Wong, J. Glinski, Planta Analytica LLC, Danbury, CT, USA

Pilot Study for the Dietary Supplement Ingredient Database (DSID): Disintegration Testing of Green Tea Dietary Supplement (DS) Capsules and Tablets

PRESENTER: Sushma Savarala, U.S. Department of Agriculture, Agricultural Research Service, Beltsville, MD, USA

CO-AUTHORS: K. Andrews, P. Dang, P. Gusev, F. Han, P. Pehrsson, U.S. Department of Agriculture, Agricultural Research Service, Beltsville, MD, USA; J. Dwyer, J. Betz, R. Costello, L. Saldanha, R. Bailey, National Institutes of Health, Bethesda, MD, USA

Verification and Transfer of a Two-Part Method for Anthocyanins Quality Control Testing

PRESENTER: Dale Schipper, AMWAY, Ada, MI, USA

CO-AUTHOR: Q. Tran, Nutrilite, Buena Park, CA, USA

***Angelica archangelica* Root Extract Show Promiscuous Biological Activity *in vitro* Testing Such as Anti-Inflammation, Melanin Inhibitory Effect and the Presence of Osthole Type Molecules Shows Their Ability to Inhibit Ketohexokinase (KHK) Activity, a Key Enzyme Responsible for Fructose's Adverse Effects in the Liver**

PRESENTER: Douglas Vredeveld, AMWAY, Ada, MI, USA

CO-AUTHORS: J. Rana, D. Fast, H. Evenocheck, J. Habel, A. Chandra, J. Scholten, AMWAY, Ada, MI, USA; D. Pusateri, K. Gellenbeck, K. Randolph, AMWAY, Buena Park, CA, USA; M. Le, University of Colorado, Aurora, CO, USA

HPTLC Screening of Dietary Supplements: Detection of Erectile Dysfunction Drug Adulteration

PRESENTER: Fabien Scorza, CAMAG Scientific, Incorporated, Wilmington, NC, USA

CO-AUTHORS: T. Do, G. Theocharis, E. Reich, CAMAG Laboratory, Muttenz, Switzerland

Standardization of Petroselinum Crispum to Apiin Using High-Performance Liquid Chromatography (HPLC): Apiin Shows Its Ability to Inhibit Ketohexokinase (KHK) Activity, a Key Enzyme Responsible for Fructose's Adverse Effects in the Liver

PRESENTER: Heidi Evenocheck, AMWAY, Ada, MI, USA

CO-AUTHORS: J. Rana, J. Habel, J. Scholten, A. Chandra, AMWAY, Ada, MI, USA; M. Le, University of Colorado, Aurora, CO, USA; D. Pusateri, K. Gellenbeck, K. Randoloh, AMWAY, Buena Park, CA, USA

Agrochemicals to Phytochemicals: UPLC Analysis of Phytonutrients in *Echinacea* After Agronomic Application of Nitrogen Feed

PRESENTER: Dale Schipper, AMWAY, Ada, MI, USA

CO-AUTHORS: J. Rana, A. Chandra, J. Scholten, AMWAY, Ada, MI, USA; J. Balles, B. Traband, Nutrilite, Buena Park, CA, USA; J. Corcorran, Trout Lake Farm, Trout Lake, WA, USA

The Screening and Identification of Undeclared Synthetic Compounds as Adulterants Using UPLC-QTOF-MS Coupled to a Novel Informatics Platform

PRESENTER: Jimmy Yuk, Waters Corporation, Milford, MA, USA

CO-AUTHORS: D. Patel, Waters Pacific Pvt. Ltd., Singapore; G. Isaac, K. Yu, Waters Corporation, Milford, MA, USA; L. Qiao, Waters Corporation, Shanghai, China

Identification of Chemical and Herbal Components of an Unknown Traditional Chinese Medicine (TCM) Product Using LC/MS Coupled with a Novel Informatics Platform

PRESENTER: Jimmy Yuk, Waters Corporation, Milford, MA, USA

CO-AUTHORS: L. Qiao, J. Huang, Waters China, Shanghai, China; D. Diehl, M. Wrona, G. Isaac, K. Yu, Waters Corporation, Milford, MA, USA

A Greener Approach to Isomeric Carotenoid Analysis

PRESENTER: Nathan Stern, AMWAY, Ada, MI, USA

CO-AUTHOR: B. Susie, Nutrilite, Buena Park, CA, USA

Quantitative Analysis of Onion Phytonutrients and Correlative Biological Activity

PRESENTER: Nathan Stern, AMWAY, Ada, MI, USA

CO-AUTHOR: S. Roloff, AMWAY, Ada, MI, USA

POSTER PRESENTATIONS

Improving Long-Term Stability of Prepared Phytonutrient Standards
PRESENTER: Heidi Evenocheck, AMWAY, Ada, MI, USA
CO-AUTHORS: N. Stern, X. Yan, AMWAY, Ada, MI, USA

Analysis on the Changes of Chemical Constituents in the Manufacturing Process of CTC (Crush-Tear-Curl) Tea
PRESENTER: Kan He, Herbalife International of America Incorporated, Torrance, CA, USA
CO-AUTHORS: Z. Xie, X. Ye, J. Wang, Z. Bao, X. Lei, Y. Chen, Herbalife International of America Incorporated, Changsha, Hunan, China; Y. Zhang, Q. Zheng, Herbalife International of America Incorporated, Torrance, CA, USA

Identification of Chamomile *(Matricaria recutita)* Flowers Powder/Extract, and Its Differentiation from Roman Chamomile by HPTLC Method
PRESENTER: Monika Arrhenius, Herbalife International of America Incorporated, Torrance, CA, USA
CO-AUTHORS: Y. Zhang, Q. Gao, P. Chang, G. Swanson, Herbalife International of America Incorporated, Torrance, CA, USA

Trace-Level Quantification of Vitamin B_{12} in Complex Matrices of Nutritional Products Using LC/MS/MS Technique
PRESENTER: Silva Babajanian, Herbalife International of America Incorporated, Torrance, CA, USA
CO-AUTHORS: V. Ritruthai, A. Shappi, P. Chang, G. Swanson, Herbalife International of America Incorporated, Torrance, CA, USA

New Tools and Processes for Extraction and Isolation Workflow of Key Botanical Active Components and Essential Oils of Cannabis Necessary for Scientific Studies
PRESENTER: John A. MacKay, Waters Corporation, Milford, MA, USA

Phytoforensic Investigation of Adulterated Dietary Supplements Utilizing the Systematic Phytoforensic Approach (SAP): Case Studies
PRESENTER: James Neal-Kababick, Flora Research Laboratories, Grants Pass, OR, USA

Performance Tested Methods℠

LC/MS/MS Analysis of Vitamin B_{12} in Infant Formula and Nutritional Supplements
PRESENTER: Jeffrey Shippar, Covance Laboratories Incorporated, Madison, WI, USA
CO-AUTHOR: A. Gabriel, Covance Laboratories Incorporated, Madison, WI, USA

VitaFast® Tests–Vitamin Analysis with AOAC-RI Certified Tests in Baby Food
PRESENTER: Sigrid Haas-Lauterbach, R-Biopharm AG, Darmstadt, Germany
CO-AUTHORS: S. Stengl, R-Biopharm AG, Darmstadt, Germany; W. Weber, Institut für Produktqualität (IFP), Berlin, Germany

Water and Wastewater Analysis

Eliminating Time-Consuming SPE in EPA Method 539 for Trace Hormones in Drinking Water by LC/MS/MS
PRESENTER: David R. Baker, Shimadzu Manchester, UK, Milton Keynes, Buckinghamshire, UK
CO-AUTHORS: N. Loftus, Shimadzu Manchester, UK, Milton Keynes, Buckinghamshire, UK ; R. Clifford, Shimadzu Scientific Instruments, Incorporated, Columbia, MD, USA

ATP-Water-Glo: Microbial ATP Detection from Complex Aqueous Samples
PRESENTER: Said Goueli, Promega Corporation, Madison, WI, USA
CO-AUTHOR: S. Mondal, Promega Corporation, Madison, WI, USA

Computer-Assisted Gas Chromatographic Method Development for the Analysis of Halogenated Contaminants in Water
PRESENTER: Rebecca Stevens, Restek Corporation, Bellefonte, PA, USA
CO-AUTHORS: C. Rattray, J. Kowalski, Restek Corporation, Bellefonte, PA, USA; P. Yang, Ontario Ministry of the Environment, Toronto, ON, Canada

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Designed to be an integral part of your Annual Meeting experience, the AOAC Exposition has a superb range of new services and technologies to examine. Over 50 leading suppliers to the analytical communities will be onsite. The Exposition offers an outstanding opportunity to learn about resources available to enhance both your individual and company performance.

Exhibit Hall Hours

Exhibit Hall Grand Opening & President's Welcome Reception

SUNDAY, SEPTEMBER 27, 2015

6:30 pm – 9:30 pm

New Time!

MONDAY, SEPTEMBER 28, 2015

12:00 pm – 5:00 pm

TUESDAY, SEPTEMBER 29, 2015

10:00 am – 5:00 pm

Exhibitor/Partner Presentations

AOAC Annual Meeting exhibitors and partners will hold Presentations throughout the Meeting. This venue allows more in-depth interaction and one-on-one contact between attendees and exhibiting companies. Companies will be showcasing new products, new technologies, and offering product demonstrations--you won't want to miss this opportunity. Stop by an Exhibitor/Partner Presentation and learn more about the following companies' products and services.

MONDAY, SEPTEMBER 28, 2015

8:00am SCIEX
9:00am ANKOM Technology
10:00am Pickering Laboratories
12:15pm Phenomenex
3:00pm Thomson Instrument Company
5:00pm bioMérieux, Inc.

TUESDAY, SEPTEMBER 29, 2015

7:15am Waters Corporation
9:45am Covance Laboratories
12:00pm Agilent Technologies
1:00pm Thermo Scientific
2:00pm Shimadzu Scientific Instruments
4:30pm Horizon Technology Inc.
5:30pm Bruker

WEDNESDAY, SEPTEMBER 30, 2015

7:30am U.S. Pharmacopeia
9:45am LGC Standards
12:00pm Wyatt Technology Corp.

Exhibitors

Following is a list of exhibitors confirmed as of press time. Please visit the AOAC web site at www.aoac.org to see additional exhibitors as they are added. If your organization is interested in exhibiting and/or sponsoring an event at the meeting, please contact Lauren Chelf at lchelf@aoac.org or 240-912-1449.

A2LA
Advion
AFFINISEP
Agilent Technologies
Alkemist Labs
American Proficiency Institute
ANKOM Technology
bioMérieux Industry
Bioo Scientific
Biotage
Bruker Corporation
CAMAG Scientific, Inc.
Cedarlane
CEM Corporation
Cerilliant
ELISA Systems
ELISA Technologies, Inc.
Elution Technologies
EMD Millipore
EnviroLogix Inc.
FoodChek Systems Inc.
Glas-Col, LLC
Hanna Instruments
Horizon Technology, Inc.
Hygiena
IsoSciences
J2 Scientific
Laboratory Accreditation Bureau
Labtopia, Inc.
LGC Standards
Megazyme
Metrohm USA
Microbiologics
Microbiology International
MOCON Inc
NACALAI TESQUE, Inc.
National Institute of Standards and Technology (NIST)
NSF International
NSI Lab Solutions
Omni International
PerkinElmer
Phenomenex
Pickering Laboratories
Q Laboratories, Inc.
Romer Labs
Rudolph Research Analytical
SCIEX
Shimadzu Scientific Instruments, Inc.
Sigma-Aldrich
SPEX SamplePrep
Teledyne Tekmar
Thermo Scientific
Thomson Instrument Company
USDA FSIS Accredited Laboratory Program
U.S. Pharmacopeia
Verder Scientific, Inc.
VICAM, A Waters Business
Waters Corporation
Wixon & Cross LLC
Wyatt Technology Corporation

AOAC has listened to your requests for additional time to visit the Exhibit Hall. AOAC will not hold scientific sessions from **11:45am – 3:00pm on Tuesday, September 29**. Please use this time to visit the wonderful collection of vendors in the Hall.

SPECIAL EVENTS & NETWORKING OPPORTUNITIES

SUNDAY, SEPTEMBER 27, 2015

Exhibit Hall Grand Opening & President's Welcome Reception

6:30pm–9:30pm

All Annual Meeting attendees and their registered guests are invited to this event that will take place in the Exhibit Hall. This reception provides an excellent opportunity to network with your colleagues and meet with representatives from the exhibiting organizations in a fun, relaxing environment. AOAC INTERNATIONAL President, Erik Konings, will welcome attendees to Los Angeles, CA. Enjoy the company of your peers and friends for light hors d'ouevres and cocktails to kick off this year's Annual Meeting.

MONDAY, SEPTEMBER 28, 2015

Awards Ceremony & Keynote Address

10:30am–12:00pm

President Konings, will present awards to individuals who have contributed to the analytical science community and to AOAC. Presentations include the prestigious Harvey W. Wiley Award and Wiley Scholarship Award, Fellows of AOAC awards, technical awards, and member service awards for those who have achieved the milestone anniversaries of 5-, 10-, and 25-years of membership in the Association.

We are honored to have Richard Stadler, Ph.D., NQAC Group Expert, Nestec SA, Nestlé, as the Keynote Speaker. Dr. Stadler's address will provide information on identifying priorities at a global level and how addressing these priorities will contribute to a safer food supply and lead to a lower risk of non-compliance. His presentation is entitled, "Analytical Methods to Verify Food Safety and Integrity: Needs and Challenges". Please mark your calendars to join us for this dynamic presentation!

New Member Welcoming Reception

5:00pm–6:30pm

Are you new to AOAC INTERNATIONAL? Are you looking to make new contacts and learn how to make the most of your membership investment? If you joined AOAC since last year's Annual Meeting in Boca Raton, FL, you are cordially invited to the annual New Member Welcoming Reception at the Annual Meeting. This is a great opportunity for new members to meet with colleagues from next door or around the world, and to learn more about the many benefits of membership.

Technical Division for Laboratory Management Reception, co-sponsored by Microbiologics

6:30 pm–7:30 pm

If you're looking for a reception that is both fun and full of networking opportunities, you don't want to miss this reception! Connect with old friends and make some important new contacts. You will also learn more about TDLM and how you can get involved—and you might even win a door prize! All new managers are encouraged to attend.

TUESDAY, SEPTEMBER 29, 2015

AOAC has listened to your requests for additional time to visit the Exhibit Hall. AOAC will not hold scientific sessions from **11:45am – 3:00pm**. Take this time to visit the vendors in the Hall. It's your opportunity to learn more about the latest technology.

Technical Division on Reference Materials Reception, co-sponsored by Silliker and Cerilliant

6:00 pm–7:00 pm

Take a moment to stop by the TDRM Reception immediately following the TDRM Members Meeting. It's a casual setting in which to get more information about TDRM and its leaders. You will also learn more about what is planned for the upcoming year and how you can participate.

WEDNESDAY, SEPTEMBER 30, 2015

Annual Meeting Closing Reception

8:00 pm–11:00 pm

As the Annual Meeting draws to a close, join your colleagues for a dessert reception. Don't forget to pack your dancing shoes and prepare to have fun! Live Entertainment.

ANNUAL MEETING HOTEL INFORMATION

The Westin Bonaventure Hotel
404 S. Figueroa Street
Los Angeles, California

Frequently featured in movies and TV, this iconic LA symbol is found in the Financial District. The hotel is also within walking distance to many of the entertainment venues such as the Dodger Stadium, Staples Center, Nokia Theatre, LA Live, and more.

AOAC has negotiated a special guestroom rate of **$175** single/double per night plus tax. Make your reservations no later than **September 4, 2015**. After that date reservations will be accepted on a space and rate available basis only.

A portion of the AOAC room block is also available at the prevailing U.S. federal government rate of **$138** single/double per night on a first-come, first-served basis. A valid U.S. federal government ID will be required at check-in.

To make a reservation by phone from the U.S or Canada, please call 1-866-716-8108. International attendees should call 213-624-1000. When making a reservation by phone, identify yourself as an AOAC INTERNATIONAL attendee. Or, you may reserve a room online at www.aoac.org. **Do not** book directly on The Westin Bonaventure's web site.

Thank you for booking your hotel reservation at the Westin Bonaventure Hotel!

A special "thank you" to our Annual Meeting attendees who have booked their sleeping room reservations at the Annual Meeting hotel over the past few years. Because of you, AOAC is able to secure low rates for their sleeping room block.

AOAC contracts for a specific number of rooms at competitive nightly rates. Filling a room block is important because it provides a "report card" on the Association to future meeting sites. By establishing a history of consistently filling the room block, AOAC is able to secure both competitive room rates and larger blocks in subsequent years. Those rooms that go unused by AOAC attendees are charged back to AOAC and cause AOAC to raise registration rates to cover the expenses of hotel rooms left vacant.

Transportation to the Westin Bonaventure Hotel

Los Angeles International Airport (LAX) is located 18 miles from The Westin Bonaventure Hotel. A taxi from the airport to the hotel will cost approximately $60 one way.

Check Out Los Angeles

There is never a shortage of things to do and see in Los Angeles! This city sets a great stage for the 129th AOAC INTERNATIONAL Annual Meeting & Exposition. If you have never been to Los Angeles, you're in for such a treat!

As the entertainment capital of the world, LA is one of the country's most glamorous cities—only one component of which is its thriving film industry. The Westin Bonaventure is a short stroll to the Music Center, the Museum of Contemporary Art, and Frank Gehry's Walt Disney Concert Hall.

In its January 2014 issue, GQ Magazine called Downtown Los Angeles "America's Next Great City" and "the coolest new downtown in America." Downtown L.A. has certainly come a long way in recent years. There were great places to eat in Downtown before its current renaissance, but the choices were limited. That's no longer the case, as acclaimed chefs and visionary restaurateurs have created a thriving dining scene in Downtown L.A. With so many restaurants opening in Downtown, deciding where to eat can be a tough choice. Visit AOAC's web site for a full listing of Downtown restaurants.

So, start planning your trip now! Although there may not be enough time to explore all of Los Angeles, we hope you experience some of the recreation, dining, and fun that the city has to offer.

Climate

The average daytime temperature in Los Angeles at the end of September is 80 degrees and most days are partly sunny. Meeting rooms tend to be cold, so a light jacket is recommended for those attending the conference.

Official Language

The official language of the AOAC Annual Meeting is English. Language translation is not provided.

Meals at the Annual Meeting

AOAC does not provide meals during the Annual Meeting. However, for a small bite to eat, swing by one of the evening receptions listed in the "Special Events & Networking Opportunities" section. Morning and afternoon refreshment breaks will be available in the Exhibit Hall and morning coffee will be set-up outside of the scientific session rooms. A continental breakfast will be provided on Monday, September 28 before the Awards Ceremony and Keynote Address.

Special Needs

If you need special accommodations to enable you to fully participate in the meeting, please contact AOAC INTERNATIONAL at 301-924-7077, ext 132 or via email at meetings@aoac.org.

Questions and Additional Information

For questions about registration or payment contact the Customer Service Department at 800-379-2622 (toll-free from North America), or 301-924-7077 ext. 170; or via email at customerservice@aoac.org.

For general questions about the Annual Meeting contact the Membership and Professional Development Department at 800-379-2622, ext. 132 (toll-free from North America) or 301-924-7077, ext. 132 (worldwide); or via email at meetings@aoac.org.

MEETING REGISTRATION

All meeting participants are required to register for the Annual Meeting. Only registered attendees will receive badges to gain entry into the scientific sessions, poster presentations, committee/community meetings, special events, and exhibit hall.

If your membership cannot be verified by AOAC INTERNATIONAL, or if your membership is not current, you will be charged the non-member fee for all items for which you register. If your membership has lapsed and you would like to renew, you may do so directly online or on the meeting registration form.

REGISTRATION DEADLINES:

Early-Bird Registration
On or before July 30, 2015
AOAC Members $500
Non-Members $675

Advance Registration
Between July 31 and September 7, 2015
AOAC Members $600
Non-Members $780

On-Site Registration & Late Registration
AOAC will keep registration open online after September 7, 2015. To avoid long registration lines, please register online and bring your receipt to the registration desk. Or, you may still register on-site in Los Angeles at the following rates:
AOAC Members $700
Non-Members $870

On-Site Registration & Badge Pick-up Hours:

Saturday, September 26	**9:00am–5:00pm**
Sunday, September 27	**7:30am–7:30pm**
Monday, September 28	**7:30am–5:00pm**
Tuesday, September 29	**7:30am–5:00pm**
Wednesday, September 30	**8:00am–12:00pm**

Cancellation Policy
If you must cancel, submit your request to cancel in writing to AOAC INTERNATIONAL via email to customerservice@aoac.org, or via fax to 301-924-7087, **no later than September 7, 2015**. NO REFUNDS will be issued for cancellations received after this date. A $50.00 administration fee will be assessed for all cancellations.

Please note that substitutions from within the same organization are permitted without penalty.

Your Meeting Registration Includes:
- Entry into all scientific sessions and poster presentations
- Entry into the exhibit hall
- Sunday Exhibit Hall Grand Opening & President's Welcome Reception
- Monday Awards Ceremony and Keynote Address
- Wednesday Closing Reception
- *Final Program*, including scientific abstracts
- Meeting Tote Bag
- Continental breakfast on Monday and daily refreshments

Guest Registration Includes:
- Entry into the exhibit hall
- Sunday Exhibit Hall Grand Opening & President's Welcome Reception
- Wednesday Closing Reception

Representatives From Developing Countries
Registrants must be from a country included on the *List of Developing Countries* in the World Development Report published by the World Bank. Advance approval is required by AOAC INTERNATIONAL. To request consideration for this special rate, contact customerservice@aoac.org or call 301-924-7077 x170. This registration discount is the only financial assistance available for registrants from developing countries. Registrants are responsible for their own travel and expenses to attend the Meeting. AOAC INTERNATIONAL does not sponsor attendees for the Meeting.

REGISTRATION FORM
129th AOAC Annual Meeting & Exposition

STEP 1: REGISTRANT INFORMATION

AOAC Member Number (if applicable) _____

Salutation ☐ Dr. ☐ Mr. ☐ Mrs. ☐ Ms.

First/Given Name _____

Last/Family Name _____

Address _____

City/State/Province _____

Zip/Postal Code/Country _____

Telephone _____

E-mail _____

Job Title _____

Employer _____

STEP 2: SELECT APPLICABLE FEES

ANNUAL MEETING REGISTRATION FEES

Early-Bird Registration (on or before July 30, 2015)

☐ AOAC Members . . . . . $500_____

☐ Nonmembers . . . . . .$675_____

Advance Registration (between July 31 and September 7, 2015)

☐ AOAC Members . . . . . $600_____

☐ Nonmembers . . . . . .$780_____

On-Site and Late Registration (NEW!)

AOAC will keep registration open online after September 7, 2015. To avoid long registration lines, please register online and bring your receipt to the registration desk. Or you may still register on-site in Los Angeles at the following rates:

☐ AOAC Members . . . . . $700_____

☐ Nonmembers . . . . . .$870_____

Registration Fees for

☐ Guest/Spouse of Registered Attendees . . . . . $135_____

Guest Name _____

☐ Student Members* . . . . . .$150_____

☐ Student Nonmembers* . . . . . .$200_____

☐ Attendees from Developing Countries . . . . . .$160_____

** You must show your Student ID to obtain your badge.*

For more information visit www.aoac.org or write to meetings@aoac.org

AOAC Educate Network Collaborate
ANNUAL MEETING & EXPOSITION

Los Angeles, California ● September 27–30, 2015

AOAC MEMBERSHIP DUES (OPTIONAL)

For renewal of current members or new members who wish to take advantage of the member discounts on meeting registration fees.

☐ Yes! I want to join AOAC to take advantage of the meeting discounts.

☐ 1 Year membership . . . . . .$120_____

☐ Student membership . . . . . $40_____

☐ Technical Division on Reference Materials . . . . . $20_____

☐ Technical Division for Laboratory Management . . . $20_____

☐ Bank wire transfer fee (if applicable) . . . . . .$15_____

TOTAL (all registration fees and membership) . . . . . _____

STEP 3: PAYMENT INFORMATION

☐ Check or money order enclosed. Payable to AOAC INTERNATIONAL. U.S. funds drawn on U.S. banks only.

☐ Visa ☐ MasterCard ☐ American Express

Name on Card _____

Card Number _____

Expiration Date _____

Signature _____

Security Code _____

☐ *Bank Wire Transfer*. Please e-mail Customer Service at customerservice@aoac.org or call +1-301-924-7077 ext. 170.

STEP 4: SUBMIT YOUR REGISTRATION

By Internet: Register online at www.aoac.org.

By Fax: Return your completed registration form with credit card information to +1-301-924-7087.

By Mail: Send your completed registration form with payment to:

AOAC INTERNATIONAL
2275 Research Blvd
Suite 300
Rockville, Maryland 20850-3250, USA

AOAC INTERNATIONAL

Agilent Technologies

PICKERING LABORATORIES
CATALYST FOR SUCCESS

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COVANCE
SOLUTIONS MADE REAL™

SHIMADZU
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Waters
THE SCIENCE OF WHAT'S POSSIBLE.™

Megazyme

2015 partners

AOAC would like to acknowledge and thank the 2015 AOAC PARTNERS

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