

CHEMICAL CONTAMINANTS & RESIDUES IN FOOD COMMUNITY

**BRINGING SCIENTISTS AND
INDUSTRY TOGETHER TO
DEVELOP AND VALIDATE
BETTER METHODOLOGIES**

MEETING AGENDA

MONDAY AUGUST 27TH

- Welcome and introductions – Vicki
- Updates from sub-groups
Metals, Veterinary Drugs, Environmental & Emerging contaminants, and Pesticides
- Review of AOAC activities of interest to the community - Vicki
- Upcoming meetings of interest - Vicki
- GOOD Test Portions (AAFCO) - Vicki
- Presentation on collaborative study opportunity – Jon Wong
- Certified reference materials – Joe Konschnik
- NIST Food safety workshop – Melissa Phillips
- NACRW working groups (standards & method equivalency) – Vicki
- Discussion – what topics are important to you? - group



- **To receive e-mail communications from the Contaminants Community, please sign-up using the Excel sheet**
- **Attendance sheet for the meeting is being distributed**
- **We are currently researching options to use a list-serve hosted by NACRW**
- **Community website hosted by NACRW
<https://www.nacrw.org/community-1st.html>**

COMMUNITY MISSION

- **To establish an infrastructure to meet the needs of scientists involved with the analysis of food for chemical contaminants and/or residues**
- **To represent scientists from countries across the globe who are dedicated to the protection of the food supply from harmful chemicals whether they be from intentional, natural or accidental contamination**
- **To engage the community from international, federal, and state governments, academia, industry, business, and trade associations**
- **To establish a forum where stakeholders can introduce new needs and resolve method problems with international input**

COMMUNITY MISSION CONT.

- **To guide and supervise the prioritization, development and validation of analytical methods for the detection, identification, and/or quantification of chemical contaminants in food matrices which are acceptable to governments and industry worldwide**
- **To provide confidence in analytical results as used by food regulators and food industry representatives alike for many purposes including public safety and security of the food supply, quality control and transparency of methods impacting trade**

COMMUNITY SUB-GROUP INTRODUCTIONS

- **Metals**
Kevin Kubachka – FDA
Jenny Nelson – Agilent
Meeting at 4:30 – 6:00 pm
Tuesday August 28th
- **Veterinary Drugs**
Eric Verdon – ANSES
Jian Wang – CFIA
Meeting at 11:45 – 1:15 pm
Tuesday August 28th
- **Emerging contaminants**
Thierry Delatour – Nestle
Meeting at 1:30 – 3:00 pm
Tuesday August 28th
- **Pesticides**
Ping Wan – OISC
Meeting at 6:15 – 7:45 pm
Tuesday August 28th

AOAC ACTIVITIES

- **SPDS Dietary supplements**

Stakeholder panel meeting Friday morning 082418

ERP Friday afternoon 082418 & Saturday morning 082518

12 candidate methods in ERP review; botanical identity

- **SPIFAN Infant formula**

Stakeholder panel meeting Saturday morning 082518

- OMB WG to evaluate AOAC methods in Codex STD 234-1999 (FFP)

- 2-MCPD, 3-MCPD, GE: SMPR 2017.07; ERP March 2018; two methods adopted as 1st action July 2018

- ERP Saturday afternoon 082518

Amino acids, tryptophan and B vitamins

- **Research Institute**

Mercury in seafood (fish) – SME call for PTM

SPSFAM – SUNDAY 8/26/18

STRATEGIC FOOD ANALYTICAL METHODS

- **SMPRs approved**
 - Low lactose dairy products
 - Compliance assessment screening of approved vet drugs in milk, meat, meat fat, fish, egg powder & infant formula (187 analytes)
 - Pesticide residues in dry cannabis

***Watch AOAC website for call for methods!**
- **ERPs**
 - **Heavy metals** : Sunday 26th August
Arsenic species in food & beverages, SMPR 2015.006 (Final action OMA consideration); Heavy metals in foods & beverages, SMPR 2012.07 (Final action OMA consideration)
 - **BPA** in carbonated & non-carbonated water & non-alcoholic beverages, SMPR 2017.018 (accepting re-submission of methods from last meeting; 1 first action OMA)

UPCOMING MEETINGS

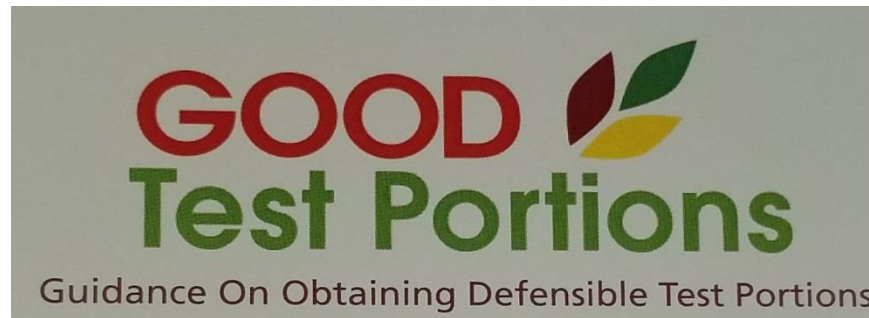
- **ACS “Chemistry for New Frontiers”**
March 31 – April 4, 2019 - Orlando, Florida
- **LAPRW 2019**
May 5 – 9, 2019 – Foz do Iguacu, Brazil
www.laprw2019.com.br
- **NACRW**
July 21 – 24, 2019 - Naples, Florida
- **NACRW**
July 26 – 29, 2020 - Fort Lauderdale, Florida
- **EPRW 2020**

GREAT RESOURCES: GOOD TEST PORTIONS

Nancy Thiex is presenting poster P-W-095 “Analytical Results can only be as Good as the Test Portion”

Wednesday August 29th

Viewing 10 – 5 pm; authors present 12 – 1 pm



PRESENTATION ON COLLABORATIVE STUDY OPPORTUNITY – JON WONG

CERTIFIED REFERENCE MATERIALS – JOE KONSCHNIK

NIST FOOD SAFETY WORKSHOP – MELISSA PHILLIPS

NACRW WORKING GROUPS

STANDARDS

NEW GROUP TO DISCUSS NEEDS & SHARE KNOWLEDGE ABOUT STANDARDS

- **Presentations by Restek & Dr. Ehrenstorfer (LGC)**
- **Stability, solubility, & reactivity in large mixes**
- **Second source –definition, continued need for**
- **Traceability**
- **Handling**
- **Expiration dates**
- **Bad actors**
- **Shared database development**
- **Plan to continue to support a workshop**
contact Jo Marie Cook to participate
<https://www.nacrw.org/community-1st.html>

NACRW WORKING GROUPS

METHOD

EQUIVALENCY

OFFICIAL METHODS

Advantages

- **Performance**
- **Gold standard**
- **Defensible**

Disadvantages

- **Expensive**
- **Takes time**
- **Static**

ISO accredited labs verify method performance, even when using Official methods

MODIFICATION HAPPENS!

- **Scope expansion**
2007.01 QuEChERS – 26 pesticides; 3 fruits & vegetables
 - * extension to additional pesticides & matrices
 - * extension to additional analytes & matrices
- **Improved performance**
 - * additional clean-up steps
- **Technology innovations**
 - * detectors
 - * columns
 - * internal standards
- **Performance can be demonstrated but that Official status is lacking**

DEVELOPING AN OFFICIAL PROCESS TO DEMONSTRATE EQUIVALENT PERFORMANCE OF METHODS

- I. Your method performs the same as the Official method for the same analytes and matrices**
- II. Your method performs to the standard of an Official method for an extended scope of application to an existing Official method**
- III. Your method performs to the standard of an Official method , but there is no existing Official method**

KEY ELEMENTS OF THE OFFICIAL METHOD PROCESS

- **Support** – there is a recognized need for the method, and people are willing to invest resources (time, technical expertise, supplies and money) in the method
- **Performance criteria** – requirements that are specific to the use of the data; agreed upon by experts
- **Single lab validation (SLV)** – data that demonstrate potential method suitability that has been put together in a format for review
- **Assessment of performance** – collaborative study with a single sample set or use of reference material; expert review of the data produced; collection of feedback from method users
- **Publication** – performance criteria, SLV and collaborative study data are published; the method itself is written in AOAC format and published in OMA

HOW WOULD AN OFFICIAL PROCESS BE DIFFERENT?

- **Streamlined, efficient & less costly**
- **Flexible and tailored to meet specific needs**
- **Provide the “how to”; help to standardize performance verification in the U.S.**
- **Tools - template development and publishing**
 - * **Performance criteria**
 - * **SLVs**
 - * **Data packets to document assessment of performance**
- **Develop reference materials & guidance on assessment of performance using RM data**
 - * **Critical component**
 - * **requires financial support**

INTERESTED? SIGN UP FOR THE WORKING GROUP!

- **Community volunteers have the expertise**
- **Activities needed:**
 - ***Vetting SMEs for valid credentials**
 - ***Developing performance criteria**
 - ***Developing guidance for review of method performance**
 - ***Developing document templates**
 - ***Developing RMs**
- **All work products to be consensus approved by the community**
- **Utilize time at NACRW when community is meeting face-to-face**

**WE NEED A COOL NAME FOR
THIS PROJECT..... IDEAS?**



NEEDS OF THE COMMUNITY

