

“DRAFT” Report of Community Meeting – September 2009

The 2009 Annual Meeting of the Chemical Contaminants and Residues in Food Community was held Tuesday, September 12, 2009, from 4:30 – 6:30 in the Franklin 3 Room of the Philadelphia Marriott Hotel as part of the 123rd AOAC Annual Meeting and Exposition.

The meeting was attended by 56 people and members of AOAC staff and the Official Methods Board. ([See attached attendance list.](#))

Officers:

The meeting was opened with introductions of standing officers: Co-Chairs, Jo Marie Cook and Stephen Capar, Secretary, Alaa Kamal, Pesticides Subgroup Chair, Jon Wong, Veterinary Drugs Subgroup Chair, John Reuther, Metals Sub Group Chair, Stephen Capar and Unknowns Sub Group Chair, Mark Goldschmidt (not present)

New Subgroup chairs were chosen at this meeting: Veterinary Drugs Subgroup Chair: Sherri Turnipseed and Secretary, Perry Martos; Metals Subgroup Chair, Cory Murphy and Unknowns Subgroup Chair, Thierry Delatour. Jon Wong remains the Pesticides Subgroup Chair.

Chinese Delegation:

Lei Bao and a delegation of Chinese scientists presented four methods for review and consideration for collaboration. The delegation is working with AOAC to identify stakeholders and support for these and other methods of interest to the Asian community. These methods may not be methods of top priority for laboratories in the U.S., Canada and Europe, but they may be needed by other countries. Any Community members, who are interested in reviewing these methods, please contact the Community Chairs or Anita Mishra at AOAC.

1. A pesticide residue method, “*Determination of Organophosphorous Pesticide Residues in Cereals and Oil-seeds for Import and Export — Gas Chromatography-Mass Spectrometry Method*”, was reviewed by Community members. This method, which screens for low ppb levels of 55 organophosphorous pesticide residues in maize, unpolished rice, soybean and peanut, utilizes accelerated solvent extraction (ASE), gel permeation chromatograph(GPC), and solid phase extraction (SPE) with detection by GC-MSD/SIM. A detailed single laboratory validation has been completed and the scientists indicated that the method has been tested in 5 different laboratories. It is possible, with additional documentation and support from stakeholders, that this method may be a suitable collaborative study candidate, if there are enough laboratories and sufficient support.
2. A method for “*Melamine determination in milk, milk powder, yoghurt, ice cream and milk candy LC-MS/MS method*” was submitted but experimental details and validation data were not provided in English. This method could not be reviewed in its present format. However, there is significant interest in melamine analysis in the Community and more work is anticipated on this subject.
3. “*Method for determination of quinolone residues in animal-derived foods – Microbial Inhibition Assay (MIA)*”, was presented. While many laboratories utilize LC/MS/MS methods for veterinary drugs, there are still some laboratories that find microbial inhibition to be a useful screening methodology. Scientists and stakeholders who are interested in this type of screening method would have to be identified before further work could proceed.
4. A method for the “*Determination of Aflatoxins in Vegetable Oil Immunoaffinity column clean-up and HPLC method*”, was referred to the mycotoxins community for review.

OMB:

The Official Methods Board (OMB) representative to the Community, Diane Rains, presented a brief overview of the Community and OMB processes. At this meeting, the OMB provided multiple trainings on the official methods process. The AOAC website also provides guidance. The Community members continue to have questions about the funding of methods. It is especially important for Community members who want to participate in the methods process by serving as

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expert reviewers, committee members or study directors, to become AOAC members and submit demographic information.

The Chairs visited OMB on Thursday to request that the OMB review SLV protocols that might be submitted by the Community. The OMB agreed but when asked about formal AOAC acceptance of the protocols, it was recommended that the authors pursue a publication in the Journal as “Best Practices”.

2008-2009 in Review:

[Jo Marie Cook provided a brief summary of the work of the Community](#) in the past year as well as an overview of the Community website. The Community interests have been focused on the development of Single Laboratory Validation protocols for veterinary drug residue chromatographic methods, metals methods and qualitative screens for unknowns. Many laboratories also worked on development and validation of melamine methods in a variety of foods this year. Although there is interest in emerging organic pollutants including food contract contaminants, there have been no additional subgroups suggested.

2009-2010 Plans:

The Community continues to have the participation of scientists from many different organizations and countries. Each of the four subgroups has important work to accomplish. The Chairs have requested that AOAC provide separate breakout sections for each of the subgroups at next year’s AOAC Annual Meeting. If possible, these breakouts will be a separate times, on the day following the Community meeting. Each subgroup meeting will be scheduled at a different time so that members can participate on more than one subgroup.

The Community intends to pursue submission of their SLV protocols for review by OMB and publication as “Best Practices”. We hope to submit one for metals and one for chromatographic analysis of organic chemical residues.

Single Laboratory Validation (SLV):

A major priority of the Community is the [preparation of guidelines for SLV studies](#) in veterinary drugs and metals.

Lars Reimann has prepared a first draft of a SLV protocol for chromatographic analyses of organic chemical residues that provides a clear outline of the types of experiments and number of replicates needed to meet the requirements of the harmonized guidelines accepted in many countries. The Veterinary Drug Subgroup is working to complete this document. The protocol may be published as “best practices” in the journal.

[Cory Murphy has prepared a first draft of a SLV protocol](#) for the analysis of metals. This detailed document includes definitions of terms, clear guidelines for experiments and numbers of replicates as well as an example SLV. This document is being reviewed by the Metals Subgroup and may also be published as a “best practices” in the journal.

The Unknowns Subgroup would also like to prepare a SLV protocol for the qualitative screens for unknowns using a variety of detection techniques including mass spectral library screens. While there are numerous guides for quantitative SLVs, the validation of broad screens for unknowns using MS identification is less well documented. With many laboratories adding this methodology to their laboratories, it is important to have guidelines, not only for SLV’s but for laboratories to document their proficiency in using these methodologies.

Sub Groups

Pesticides:

[Subgroup Chair, Jon Wong, presented an update on work](#) being done by FDA to adapt QuEChERS to LC/MS/MS analysis and reported on the 2009 Latin American Pesticide Residue Workshop and the Florida Pesticide Residue Workshop.

Jon also reported that Dr. Pang’s work, , “*The Study of the Stability of 460 Pesticides in Standard Solutions and their Metabolic Processes in Tea by GC/MS and LC/MS/MS*” is ready for publication. Dr. Pang would like to pursue a collaborative study and is discussing possibilities for financial sponsorship with AOAC.

Veterinary Drugs:

[Subgroup Chair, John Reuther, presented a summary](#) of significant work completed by members including multi-residue methods by Peter Martos and Sherri Turnipseed and participation in the Elanco stakeholder meeting.

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At the breakout session, the group discussed the draft SLV protocol for organic chemical residues. The protocol is being updated wherever possible to include requirements of other countries. Tom Burnett is revising before submission to the whole group.

The group reviewed last year's method priorities for multi-residue methods in seafood for dyes, nitrofurans metabolites and quinolones but has tabled further work until they hear from the seafood stakeholders group. Multi-residue methods using LC/MS/MS continues to be of the highest priority but there are no visible industry stakeholders that may fund efforts within AOAC to bring forward a collaborative effort.

Seafood:

[Stan Bacler updated the group on the work of the seafood stakeholder group.](#) There continues to be a lot of interest on the part of the members to develop multi-residue screens for veterinary drugs in seafood. A method needs document is being developed. One multi-residue method has been developed and publication is planned in early 2010. AOAC has not announced any further meetings of the seafood stakeholders.

Unknowns:

Surveys were conducted to determine method needs for the [analysis of melamine](#) and also for the quality control of [protein containing foods](#). Subgroup Chair, Mark Goldschmidt, prepared summaries of the surveys on melamine and protein authenticity methodologies. These results were reported to the group.

The group has identified a need for an SLV protocol for qualitative screens for unknowns. A draft protocol will be prepared and discussed this year.

Melamine:

There continues to be an interest in the analysis of melamine. Members have participated in several proficiency testing programs. Representatives from Nestle proposed that a [melamine method](#) be collaboratively studied. It is anticipated that a method needs statement will be completed this year and a call for methods will immediately follow. It is felt that this collaboration needs to proceed as soon as possible.