



AOAC INTERNATIONAL FOOD AUTHENTICITY/FRAUD MEETING

MEETING HELD AT

Gaithersburg Marriott Washingtonian Center

9751 Washingtonian Boulevard
Gaithersburg MD 20878, USA

Draft Meeting Minutes

March 13, 2019

MODERATOR:

Palmer Orlandi, *AOAC INTERNATIONAL*

WORKING GROUP CHAIRS:

Non-Targeted Analysis – John Szpylka, *Mérieux NutriSciences*

Targeted Analysis – Joe Boison, *Independent Consultant*

Attendees:

Chuck Barber, US NIST¹

Carly Barone, Bia Diagnostics

David Bolliet, Kalsec

Emily Britton, Waters

David Bunk, US NIST¹

Oscar Cabrices, SCIEX

Ester Campos Gimenez, Nestlé

Chung Cho, US FDA

Bob Clifford, Shimadzu

Mark Collison, ADM

David Dain, DSM Nutritional Products

Marcel de Vreeze, NEN/ISO²

Mathieu Dubois, Nestlé

Arne Duebecke, Tentamus Center for Food Fraud

Luke Emerson-Mason, Bia Diagnostics

Lauren Fleury, AsureQuality Ltd.

Carlos Galera, Hygiene Diagnostica España

Steven Gendel, US Pharmacopeia

Ashley Green, US NIST¹

Anita Hayden, New Chapter

Gary Jackoway, MIDI, Inc.

Greg Jaudzems, Nestlé

George Joseph, AsureQuality Ltd.

Estela Kneeteman, INTI³

Joseph Konschnik, RESTEK Corporation

Scott Krepich, Phenomenex

Mary Krogull, Eurofins

Paolo Lecchi, DSM

Sookwang Lee, US FDA

Kai Liu, Eurofins Scientific

Amanda Manolis, Thermo Fisher Scientific

Sean McClure, Abbott Nutrition

Jesse Miller, NSF International

Deepali Mohindra, Thermo

Tracy Mui, PepsiCo

Hari Narayanan, Metrohm USA Inc

Melissa Phillips, US NIST¹

Cezary Poplawski, R-Biopharm Rhone

Rick Reba, Nestlé

Joe Romano, Waters Corporation

Andre Santos, Agilent Technologies, Inc.

Nandakumara Sarma, US Pharmacopeia

Ron Sarver, Neogen

Tom Seipelt, Abbott Nutrition

Maged Sharaf, CAMAG

Mei Shotts, Abbott Nutrition

Christopher Smith, The Coca-Cola Company

Mandy Sperry, Neogen

Cynthia Srigley, US FDA

Dustin Starkey, Abbott Nutrition

¹ US National Institute of Standards and Technology

² Netherlands Standardization Institute

³ Instituto Nacional de Tecnologia Industrial

Brad Stawick, SGS North America
Hiroko Suzuki, Japan Food Research Laboratories
John Szpylka, Mérieux NutriSciences
Jeanice Thomas, US NIST¹
Marina Torres, LATU⁴
Jeroen van Soest, Eurofins
Wayne Wargo, Abbott Nutrition

Kelsey West, Abbott Nutrition
Kenny Xie, US Pharmacopeia
Jinchuan Yang, Waters
Jupiter Yeung, Nestlé
Yuichi Yotsuyanagi, Shimadzu
Hong You, Eurofins Scientific Inc

AOAC Staff in Attendance

David Schmidt (*Executive Director*)
Delia Boyd
Scott Coates
Jennifer Diatz
Jonathan Goodwin (*Deputy Executive Director*)
Nora Marshall

Deborah McKenzie
Alicia Meiklejohn
Tien Milor
La’Kia Phillips
Bob Rathbone

⁴ Laboratorio Tecnológico del Uruguay

I. WELCOME/INTRODUCTIONS

Palmer Orlandi (AOAC) opened the meeting and welcomed attendees and lead introductions of the attendees. Orlandi also outlined the purpose and proposed outcomes of the meeting.

II. HISTORY AND SCOPE OF THE AOAC FOOD AUTHENTICITY PROGRAM

Deborah McKenzie (AOAC) summarized the history of the AOAC Food Authenticity Program with a presentation of the process for moving forward in the program. She also provided the background including the initial AOAC Presidential Task Force on Food Fraud meeting held September 2017 and March 2018 and chaired by Dr. Samuel Godefroy (Université Laval) with the objectives to consider AOAC's role and efforts in food fraud mitigation and prevention and to leverage AOAC's processes to facilitate sustained action in addressing the analytical requirements for food fraud prevention.

The AOAC Presidential Task Force identified areas of work to standardize analytical methods to be used by food industry and regulators with a focus on non-targeted and targeted testing methods. The two (2) working groups were formed during the March 2018 AOAC Mid-Year meeting. The non-targeted methods are used to support the authenticity of a given ingredient without targeting a specific adulterant. The targeted methods will focus on the presence of a given adulterant in an ingredient.

A Thought Leader meeting was held August 2018 during the AOAC Annual Meeting to inform the community of AOAC's commitment to the initiative with initial proposals by the working group chairs. AOAC established a prospectus for sponsorship, developed the priority commodities with assistance from the advisory panel of sponsors, and transitioned the initiative into the AOAC Standards pathway with a launch in March 2019 during the AOAC Mid-Year Meeting to include food authenticity.

The initial list of interest developed included approximately twenty (20) commodities. The needs and deliverables included method development, testing and/or reference materials, method performance requirements, validation guidance, approved methods, proficiency testing, education and training. Test kits and rapid methods, WGS and NGS, chromatography and spectrometry, portable, and other emerging technologies will also be a focus.

Orlandi provided additional information on the new processes along with the options for the scope of work in 2019 including a prospective multi-year program.

III. LAUNCH OF AOAC WORKING GROUP ON NONTARGETED ANALYSIS/TESTING

John Szpylka (Mérieux NutriSciences) lead the working group in a discussion to reach general consensus on identifying and prioritizing commodities as developed by the advisory panel. Szpylka provided information on the definitions of both food fraud and food authenticity, discussed the results of the AOAC survey on high-risk commodities requiring non-targeted testing, and the performance requirements.

The survey results included the following:

1. Olive oil
2. Honey
3. Fish
4. Meat
5. Milk Powder
6. Seafood
7. Grains (rice)

The working group agreed to terms and definitions, identified the components for a non-targeted testing SMPR, and the instrument platform. In addition, discussed and approved the following priority commodities:

- Olive oil
- Honey
- Milk (powder and liquid)

The working group also provided additional input on other commodities to consider in the future such as:

- Spices
 - Turmeric
 - Saffron
- Coffee
- Tea
- Speciation
 - Fish/Seafood
 - Meat

IV. LAUNCH OF AOAC WORKING GROUP ON TARGETED ANALYSIS/TESTING

Joe Boison (Independent Consultant) provided a summary of targeted testing and lead the working group discussion based on the identification and prioritization of the nontargeted testing.

During the August 2018 AOAC Annual Meeting in Toronto, the Stakeholder Panel approved a fit-for-purpose statement to conduct a gap analysis of current methods used to test for food fraud and develop SMPRs to validate targeted testing methods. Also, develop standards leading to Codex Type 1 methods for dispute resolution in international trade and prioritize actions and expedite approach for method validation in cases of international widespread adulteration. The path forward included consideration of overlapping technologies for targeted and non-targeted testing procedures. In addition, identify needs to prioritize action for development of AOAC standards in support of food fraud targeted testing in the light of the new strategic analytical solutions forum and recommend a process for AOAC standards development and review during a major international food fraud incident, requiring the mobilization of resources including those of AOAC.

During the working group discussions, identified and prioritized gaps for targeted testing. The working group determined to use available reference resources including a food fraud database to develop a starting point for adulterants in relation to the list of prioritized commodities developed by the advisory panel.

The working group also identified gaps in the existing methodologies and evaluated the level of performance and validation to prepare and publish a gap analysis report and to develop SMPRs for those priority commodities and their known adulterants.

V. SUMMARIZING THE SCOPE/NEXT STEPS

Orlandi summarized the progress of the meeting and informed attendees of next steps for the working groups included reviewing all recommendations with the Advisory Panel well as the overall scope of effort for the AOAC Food Authenticity program.