AOAC INTERNATIONAL

Stakeholder Panel for Infant Formula and Adult Nutritionals (SPIFAN)

Gaithersburg Marriott Washingtonian Center

9751 Washingtonian Boulevard, Gaithersburg MD 20878, USA

March 12, 2020 – 1:30pm (Eastern US)

REPORT OF THE NUTRIENTS EXPERT REVIEW PANEL (ERP) PROCEEDINGS

Expert Review Panel Members (in attendance):

Darryl Sullivan	***Eurofins Food Integrity and Innovation*** *(Chair)*
Sean Austin/Esther Campos-Giménez	Nestlé
Scott Christiansen	Perrigo Nutritionals
Martine van Gool	FrieslandCampina
Brendon Gill	Fonterra Cooperative
Karen Schimpf	Abbott Nutrition
Estela Kneeteman	INTI
Maria Ofitserova	Pickering Labs, Inc.
Melissa Phillips/Kate Rimmer	NIST
Shay Phillips/Tom Vennard	RB-Mead Johnson Nutrition
Jinchuan Yang	Waters Corp.
David Woollard	Hill Labs

Expert Review Panel Members (unable to attend):

John Austad	Eurofins Food Integrity and Innovation
Adrienne McMahon	Wyeth
Harvey Indyk	Fonterra Cooperative
Sneh Bhandari	Consultant
Don Gilliland	Abbott Nutrition
Hans Cruijsen	FrieslandCampina

Observers:

Julie Blackwell, Eurofins
Keren Breiteran, Eurofins
Emily Britton, Waters Corp
Neal Craft, Eurofins
Marcel de Vreeze, NEN-ISO
Berit Dockter, INCA
Aurelie Dubois, IDF
Ping Feng, Wyeth nutrition
Tetsu Goto, CSC JP
Luke Gray, Neogen Corp.
Joe Hale, Agropur Inc
Greg Jaudzems, Nestlé
Chris Johnson, Hilmar Ingredients
George Joseph, AsureQuality
Erik Konings, Nestlé
Elaine Marley, R-Biopharm Rhone Ltd.
Naren Meruva, Waters Corp.
Ron Sarver, Neogen Corp.
Brian Schuld, Eurofins Nutritional Analysis Center
Angela Smith, Henry Agilent technologies
Dustin Starkey, Abbott Nutrition
Michael Sussman, USDA
Gordon Sutton, Synlait Milk Ltd
Marina Torres, LATU

AOAC Staff:
Saliha Argubie
Delia Boyd
Nora Marshall
Alicia Meiklejohn
Tien Milor
Jennifer Diatz

I. WELCOME AND INTRODUCTIONS

Darryl Sullivan welcomed all participants to the ERP meeting and of the ERP members.

II. DISCUSSION ON METHODS REVIEW PROJECT

Sullivan continued the discussion on the methods review project (AOAC OMA Chapter 50). Questions posed included "are the methods fit-for-purpose and does it meet the SMPR?" If the answer is "yes", what type of validation support was submitted. If "no" we do not have validation support, we either need to look at a pathway to gain or reconsider the method. The expectation of an AOAC Official Method contain reproducibility data which some of the methods does not include. Response was some of the methods are not being used. If the methods aren't being used but have some value, we should keep them and gather data on reproducibility. Current policies do not require formal validation through collaborative study, could gain data points through use of proficiency testing or other mechanisms to generate the statistically valid. Reproducibility data would be valid as well. If data is never received, what do we do with those methods?

The current policies of AOAC dictates that reproducibility data is submitted or send on pathway to be repealed. The policy also states that there is a 2-year period for reproducibility.

It was proposed that the methods that the ERP wants to keep as quality control (QC), be given a designation other than AOAC Official Method. Those methods could become First Action with SLV data but propose another designation.

III. REVIEW OF CHINA GB METHODS BY EXPERT REVIEW PANEL (ERP)

Click here for method reviews

a. **Vitamin C – *Co-Chairs: Jayashree Arcot (UNSW)/ Lalitha Gowda (CFTRI)***

- GB 5413.18-2010 (Determination of Vitamin C in Foods)

b. **Carnitine/Choline – *Co-Chairs: John Austad (Eurofins) & Günther Raffler (Eurofins-Retired)***

- GB 29989-2013 (The determination of L-carnitine in foods for infants and young children, milk and milk products)

IV. UPDATE ON AMINO ACIDS MLT

Method author was able to send the AOAC SPIFAN kit to China for testing and will be shared among four (4) labs that agreed to participate. Four (4) labs completed and have submitted data (holding off on stats). Six (6) labs appear to be in agreement, two (2) labs have slight issues (awaiting preliminary data sets) and three (3) have passed the practice samples and will be provided the full kit and an additional lab is working on the practice samples.

V. DISCUSS COMMENTS RECEIVED ON FINAL ACTION METHODS

a. Carnitine/Choline
b. Carotenoids

The discussions took place on March 11th with a minor update. The comments were detailed but with no major issues. The method authors were available to provide updates to the comments. The carotenoid (lutein) data was discussed and determined whether it would be kept. Also reviewed the data and confirmed that issues from Norway should be clearly described in a different way. The additional information is not

essential for the method and requested to remove anything that has to do with lutein and include in an annex (for informational purposes only).

In the AOAC method, lutein was previously given First Action status and beta carotene is Final Action. The AOAC publication contains the lutein reproducibility data and was included along as Final Action because it is still used in the title.

The folate method was already addressed, but needed further discussion due to the internal standard and it's availability.

B vitamins was also reviewed with open questions on the storage of the standards for the method which was described differently (dried or not), needs a unified approach.

VI. DISCUSSION ON METHOD EXTENSIONS (INDIAN MATRICES)

Joe Thompson (Abbott Nutrition) continued the discussion from the stakeholder panel update on sample preparation. The SMPR specifies that powders be reconstituted 25g powder into 200g water for all AOAC SPIFAN methods. The India extension of AOAC 2015.06 (ICP-MS) showed that this prep yielded inaccurate results for iron in products fortified with ferric pyrophosphate. The SMPR prep is also not likely to yield precise results in adult products that are dry-blended.

Reconstitutions based on higher powder weights did not solve under-recovery for iron. In adult nutritionals to dry-blend in premixes into a base powder, or just dry-blend in every ingredient is common. The experience is that at least 100g of powder needs to be reconstituted (to 1L) to get typical method precision.

As the method extensions continue, where do these preps belong? In the individual *Official Method* with an update (based on published SLV data?), in a separate method applicable to several methods, or to engage experts and document best practices. Recommend amending the SMPR (e.g. for dry-blended scenario).

The final proposal included not changing SMPRs. We may want to consider a separate sample prep procedure in Chapter 50 as guidance. Thompson volunteered to create an outline of the activity including next steps with assistance from volunteers.

VII. NEXT STEPS/FEEDBACK FROM EXPERT REVIEW PANEL

Darryl Sullivan provided next steps including recommendations to the method authors.

❖ **To access the ERP Reviewer forms please click here or https://cld.bz/f7uDT5r**