

METHODS COMMITTEE REPORTS

Committee on Natural Toxins and Food Allergens

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Committee Actions

The committee participated in the formation of a new Methods Committee, Committee L, on Biological Threat Agents. Seth Pincus, formerly of this committee, is now serving in a similar capacity on Committee L. Mark Poli, General Referee for Biological Toxins, will also serve on the new Committee L. The names of candidates for the open Committee positions have been submitted to AOAC INTERNATIONAL for approval. The committee extends its congratulations to James Lawrence of Health Canada for receiving the Collaborative Study of the Year and Study Director of the Year awards as a result of his efforts in the validation of a method for paralytic shellfish toxins.

One method was approved as Final Action. The method, **2003.02**, is for aflatoxin in animal feed by immunoaffinity column cleanup and LC with post-column derivatization. One new method was submitted: Total Aflatoxins B₁, B₂, G₁ and G₂ and Ochratoxin A in Ginseng and Ginger by Multitoxin Immunoaffinity Column Cleanup and Liquid Chromatographic Quantitation, OMA-2007-Mar-006. The chairs of the Presidential Task Force for Food Allergens and the GR for Food Allergens have reviewed and approved the validation data for a gliadin method (R-Biopharm). This method has not yet been submitted to AOAC INTERNATIONAL. In Europe, 2 methods for detecting hazelnuts have been submitted as possible standards to CEN (European Committee for Standardization). Both have been successfully validated in a national ring-trial following AOAC/IUPAC harmonized guidelines; neither has yet been submitted to AOAC INTERNATIONAL.

At the Methods Committee Meeting in Anaheim, CA on September 16, 2007, the following recommendations were made by the committee:

(1) Method **990.32** *Aflatoxin B₁ in Corn and Roasted Peanuts* should be held at First Action approval until issues related to changes in the formulation of the kit are resolved. Data on the effects of the changes have not been reviewed outside the company. The suggestion was made that the data needs to be reviewed by the Methods Committee to see if the methods are equivalent. Goto asked that the data be sent to him and he will forward it to the committee.

(2) Method **2001.04** *Determination of Fumonisin B₁ and B₂ in Maize Flour and Cornflakes by LC*, Study Director Angelo Visconti. For the First Action approved method, the samples submitted were corn flour or cornflakes. The cornflakes were made with clean corn, then spiked with contaminated corn flour. The committee recommended 2 possible courses of action: (1) delete "cornflakes" from the title and sections on applicable matrixes in the method and then recommend for Final Action, or (2) if data on recovery

from cornflakes made from naturally contaminated maize can be made available, reconsider the method, as written, for approval for Final Action. The major concern was whether the extraction efficiency from cornflakes was the same as from corn flour. The chair will contact the Study Director. If he does not provide any more data, the committee recommends that all references to "corn flakes" be deleted and the method would then be suitable for Final Action.

(3) Four First Action methods were recommended for Final Action. These included **998.03** *Aflatoxins in Peanuts (Alternative BF Method)*, **999.07** *Aflatoxin B₁ and Total Aflatoxins in Peanut Butter, Pistachio Paste, Fig Paste, and Paprika Powder*, **2004.10** *Determination of Ochratoxin A in Green Coffee by Immunoaffinity Column Cleanup*, and **2005.08** *Liquid Chromatographic Analysis of Aflatoxin Using Post-Column Derivatization (Modification of 999.31, 999.07, and 970.45)*. Following the September 16, 2007 meeting, Maragos (Secretary) replaced Goto as the Chair and Stroka replaced Maragos as Secretary.

Open Forum

Mycotoxins, Gordon Shephard

(1) *Sampling and Subsampling for Mycotoxins*.—Topic Advisor Thomas B. Whitaker, U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), North Carolina State University, 124 Weaver Lab, Box 7625, Raleigh, NC 27695-7625, Tel: 919-515-6731, Fax: 919-515-7760, E-mail: tom_whitaker@ncsu.edu. Continue study.

(2) *Aflatoxin M₁*.—Topic Advisor Hans P. van Egmond, National Institute of Public Health and the Environment, Laboratory for Food and Residue Analysis, Postbak 3, PO Box 1, Bilthoven, 3720-BA, The Netherlands, Tel: +31-30-2742440, Fax: +31-30-2744403, E-mail: hp.van.egmond@rivm.nl. Continue study.

(3) *Aflatoxin Methods*.—Topic Advisor Gordon Shephard, PROMEC, Medical Research Council, Francie Van Zijl Dr Parow/PO Box 19070, Tygerberg 7505, South Africa, Tel: +27-21-938-0279, Fax: +27-21-938-0260, E-mail: gordon.shephard@mrc.ac.za. Continue study.

(4) *Alternaria Toxins*.—Topic Advisor Michele Solfrizzo, Institute of Sciences of Food Production Agriculture, National Research Council, Via Amendola 122/o, Bari 70126, Italy, Tel: +39-080-5929367, Fax: +39-080-5929374, E-mail: michele.solfrizzo@ispa.cnr.it. Continue study.

(5) *Citrinin*.—Topic Advisor David Abramson, Agriculture and Agri-Food Canada, Cereal Research Center, 195 Dafoe Rd, Winnipeg MB R3T-2M9, Canada, Tel: 204-984-5536, Fax: 204-983-4604, E-mail: dabramson@agr.gc.ca. Appoint new topic advisor and continue study.

(6) *Cyclopiazonic Acid*.—Topic Advisor Joe W. Dorner, USDA, ARS, National Peanut Research Laboratory, PO Box 509, 1011 Forrester Dr SE, Dawson, GA 31742, Tel: 912-995-7408, Fax: 912-995-7416, E-mail: jdorner@nprl.usda.gov. Continue study.

(7) *Ergot Alkaloids*.—Topic Advisor George M. Ware, U.S. Food and Drug Administration (FDA), 60 8th St NE, Atlanta, GA 30309, Tel: 404-347-2131, ext. 5215, Fax: 404-347-4225, E-mail: gware@fda.hhs.gov. Continue study.

(8) *Fumonisin*s.—Topic Advisor Chris Maragos, USDA, ARS, National Center for Agricultural Utilization Research, 1815 N. University St, Peoria, IL 61604, Tel: 309-681-6266, Fax: 309-681-6689, E-mail: maragocm@ncaur.usda.gov. Continue study.

(9) *Mycotoxins in Botanicals*.—Topic Advisor Bruce Malone, Trilog Analytical Laboratory, 111 W. Fourth St, Washington, MO 63090, Tel: 636-239-1521, Fax: 636-239-1531, E-mail: bruce@trilogylab.com. Continue study.

(10) *Ochratoxins*.—Topic Advisor Mary Trucksess, U.S. Food and Drug Administration, 5100 Paint Branch Pkwy, College Park, MD 20740, Tel: 301-436-1957, Fax: 301-436-2665, E-mail: mary.trucksess@fda.hhs.gov. Continue study.

(11) *Patulin*.—Topic Advisor Myrna Sabino, Instituto Adolfo Lutz, Av. Dr Arnaldo 355-01246-902, São Paulo, Brazil, Tel: 55-11-3068-2921, Fax: 55-11-3085-3505, E-mail: mysabino@ial.sp.gov.br. Continue study.

(12) *Trichothecenes*.—Topic Advisor Gary Lombaert, Health Canada, Health Products and Food Branch, 510 Lagimodiere Blvd, Winnipeg, MB, R2J-3Y1, Canada, Tel: 204-984-2088, Fax: 204-983-5547, E-mail: gary_lombaert@hc-sc.gc.ca. Continue study.

(13) *Zearalenone*.—Topic Advisor Rudolf Krska, Christian Doppler Laboratory for Mycotoxin Research, Konrad Lorenz Str. 20, A-3430, Tulln, Austria, Tel: 43-2272-66280-401, Fax: 43-2272-66280-403, E-mail: Rudolf.krska@boku.ac.at. Continue study.

(14) **2001.04** *Determination of Fumonisin B₁ and B₂ in Maize Flour and Cornflakes by LC*.—Study Director Angelo Visconti, Institute of Sciences of Food Production Agriculture, National Research Council, Via Amendola 122/o, Bari 70126, Italy, Tel: 39-080-5929333, Fax: 39-080-5929371, E-mail: angelo.visconti@ispa.cnr.it. Remove cornflake from matrix and submit for Final Action.

(15) **2004.10** *Determination of Ochratoxin A in Green Coffee by Immunoaffinity Column Cleanup and LC*.—Study Director Eugenia Vargas, Laboratory for Mycotoxin Analysis, Avenida Raja Gabaglia, 245 Cidade Jardim, Belo Horizonte 30380-090, Brazil, Tel: 55-31-250-0398, Fax: 55-31-250-0399, E-mail: gena@cdlnet.com.br. Continue study.

(16) **2005.08** *Liquid Chromatographic Analysis of Aflatoxin Using Post-Column Derivatization (Modification of 991.31, 999.07, and 970.45)*.—Study Director Arthur Waltking, Waltking Associates, 482 Rock Rd, Glen Rock, NJ 07452, Tel: 201-444-1307, E-mail: Arthur.waltking@verizon.net. Adopted as First Action Official Method, 2006.

(17) *Determination of Deoxynivalenol in Corn, Wheat, Barley, and Malted Barley, ELISA, D-4*.—Study Director Mark Mozola, Neogen Corp., 620 Leshner Pl, Lansing, MI

48912-1595, Tel: 517-372-9200, Fax: 517-372-0108, E-mail: mmozola@neogen.com. Study has been discontinued.

(18) *Total Aflatoxins B₁, B₂, G₁, and G₂ and Ochratoxin A in Ginseng and Ginger by Multitoxin Immunoaffinity Column Cleanup and Liquid Chromatographic Quantitation, OMA-2007-Mar-006*.—Study Director Mary Trucksess, U.S. Food and Drug Administration, 5100 Paint Branch Pkwy, College Park, MD 20740, Tel: 301-436-1957, Fax: 301-436-2665, E-mail: mary.trucksess@fda.hhs.gov. Study in progress.

Marine and Freshwater Toxins, James M. Hungerford

(1) *Anatoxins*.—New Topic Advisor Ambrose Furey, PROTEOBIO, Cork Institute of Technology, Rossa Ave, Bishopstown, Cork, Ireland, Tel: 353-21-432-6701, Fax: 353-21-434-5191, E-mail: afurey@cit.ie. Continue study.

(2) *Animal Bioassays for Phycotoxins*.—Topic Advisor Donald J.A. Richard, Canadian Food Inspection Agency, PO Box 5030, 343 Archibald St, Moncton, NBE1C-9B6, Canada, Tel: 506-855-4824, Fax: 506-851-3315, E-mail: Donrichard@phycotoxins.ca. Continue study. (Note: This topic was renamed from Bioassays for Phycotoxins.)

(3) *Azspiracids*.—Topic Advisor Ambrose Furey (see 1). Continue study.

(4) *Brevetoxins, Immunochemical Methods for Brevetoxins*.—Topic Advisor Jerome Naar, Center for Marine Science-UNCW Research Faculty, 5600 Marvin K. Moss Ln, Wilmington, NC 28409, Tel: 910-962-2367, Fax: 910-962-2410, E-mail: naarj@uncw.edu. Continue study. (Note word order changed in title to place brevetoxins first.)

(5) *Capillary Electrophoretic Methods for Marine Toxins*.—Topic Advisor Ana Gago-Martinez, Universidad de Vigo, Dpto. Química Analítica y Alimentaria, Campus Universitario de Vigo, 36200, Vigo, Spain, Tel: 34-986-812284, Fax: 34-986-812556, E-mail: anagago@uvigo.es. Continue study.

(6) *Cell Bioassays for Phycotoxins*.—Topic Advisor Ronald Manger, Fred Hutchinson Cancer Research Center, PO Box 19024, Seattle, WA 98109-1024, Tel: 206-667-5838, Fax: 206-667-4182, E-mail: rmanger@fhcrc.org. Continue study.

(7) *Ciguatoxins by LC/MS*: Topic Advisor Richard J. Lewis, Institute for Molecular Bioscience, The University of Queensland, St. Lucia 4072, Queensland, Australia. Continue study.

(8) *Domoic Acids*.—(Note: This topic was renamed from Amnesic Shellfish Poisoning Toxins.) Study Director Michael A. Quilliam, National Research Council Canada, Institute for Marine Biosciences, 1411 Oxford St, Halifax, NS, B3H-3Z1, Canada, Tel: 902-426-9736, Fax: 902-426-9413, E-mail: Michael.quilliam@nrc-cnrc.gc.ca. Continue study.

(9) *Domoic Acids by ELISA*.—Study Director Hans Kleivdal, Biosense Laboratories AS, HIB-Thor Mohlensgt 55, Bergen, N-5008, Norway, Tel: 47-5554-3966, Fax: 47-5554-3771, E-mail: hans.kleivdal@biosense.com. Continue study.

(10) *Electrophysiological Methods for Saxitoxins*.—Topic Advisor Benjamin A. Suárez-Isla, University of Chile, Department of Physiology and Biophysics, Av. Independencia 1027 Box 70005, Santiago, 7, Chile, Tel: 562-777-6886, Fax: 562-732-9668, E-mail: bsuarez@conductor.med.uchile.cl. Continue study.

(11) *LC/MS Detection of Marine Toxins*.—Topic Advisor Patrick Holland, Cawthron Institute, Private Bag 2, 98 Halifax St East, Nelson, New Zealand, Tel: 64-3-5482319, Fax: 64-3-5469464, E-mail: Patrick.holland@cawthron.org.nz. Continue study.

(12) *Microcystins and Nodularins*.—Topic Advisor Geoffrey A. Codd, University of Dundee, Biological Science Institute, Dundee, Scotland, DD1-4HN, United Kingdom, Tel: 44-1382-344272, Fax: 44-1382-344275, E-mail: g.a.codd@dundee.ac.uk. Continue study.

(13) *Okadaiates, Assay Methods*.—(Note: This topic was renamed from Diarrhetic Shellfish Poisoning Toxins, Assay Methods.) Topic Advisor J. Marc Fremy, AFSSA, 27-31 Ave du General Leclerc, Maisons-Alfort, F-94701, France, Tel: 33-1-49772794, Fax: 33-1-49771352, E-mail: j.fremy@afssa.fr. Continue study.

(14) *Okadaiates by LC-Based Methods*.—Topic Advisor Philipp Hess, Marine Institute, Galway Technology Park, Parkmore West, Galway, Ireland, Tel: 353 (0) 91-730-400, Fax: 353 (0) 91-730-470, E-mail: Philipp.hess@marine.ie. Continue study.

(15) *Immunochemical Methods for Phycotoxins*.—Topic Advisor Lyn Briggs, AgResearch, Ruakura Research Centre, East St, Private Bag 3123, Hamilton, New Zealand, Tel: 64-7-838-5137, Fax: 64-7-838-5189, E-mail: lyn.briggs@agresearch.co.nz. Continue study.

(16) *Saxitoxins, LC Methods*: (Note: This topic was renamed from Paralytic Shellfish Poisoning Toxins, Instrumental Methods.) Study Director James F. Lawrence, 484 Brierwood Ave, Ottawa, ON K1A-OL2, Canada, Tel: 613-729-2205, Fax: 613-954-4674, E-mail: jimlawrence@sympatico.ca. Continue study.

(17) *Receptor Assays for Phycotoxins*.—Topic Advisor Frances Van Dolah, NOAA, National Ocean Service, Center for Coastal Environmental Health and Biomolecular Research, 219 Fort Johnson Rd, Charleston, SC 29412, Tel: 843-762-8529, Fax: 843-762-8700, E-mail: fran.vandolah@noaa.gov. Continue study.

(18) *Sample Pretreatment Methods for Marine Toxin Analysis*.—Topic Advisor Ana Gago-Martinez. Continue study.

(19) *Tetrodotoxins*.—Topic Advisor Mari Yotsu-Yamashita, Tohoku University, Graduate School of Agricultural Science, 1-1 Tsutsumidori-Amamiyamachi, Aoba-Ku, Sendai, 981-8555, Japan, Tel: 81-22-717-8922, Fax: 81-22-717-8922, E-mail: myama@biochem.tohoku.ac.jp. Continue study.

(20) *Yessotoxins*.—Topic Advisor Aurelia Tubaro, DEMREP, University of Trieste, Via Valerio 6, 34127 Trieste, Italy, Tel: 39-040-558-7910, Fax: 39-040-558-3215, E-mail: Tubaro@units.it. Continue study.

(21) *Ciguatoxin and Related Polyethers in Fish Tissues and Extracts, Membrane Immunobead Assay, D-15*.—Study Director

Yoshitsugi Hokama, University of Hawaii at Manoa, John A. Burns School of Medicine, Department of Pathology, 1960 East-West Rd, Honolulu, HI 96822, Tel: 808-956-5464, Fax: 808-956-5506, E-mail: hokamay@jabsom.biomed.hawaii.edu. Continue study.

(22) **2005.06** *Quantitative Determination of Paralytic Shellfish Poisoning Toxins in Shellfish Using Prechromatographic Oxidation and Liquid Chromatography with Fluorescence Detection.*—Study Director James Lawrence (see 16). Adopted as a First Action Official Method, 2006.

(23) **2006.02** *Determination of Domoic Acid Toxins in Shellfish by Biosense ASP ELISA: A Direct Competitive*

Enzyme-Linked Immunosorbent Assay.—Study Director Hans Kleivdal, Biosense Laboratories AS, HIB-Thormohlensgt, 55 N-5008 Bergen, Norway, Tel: 47-5554-3967, Fax: 47-5554-3771, E-mail: hans.kleivdal@biosense.com. Adopted as a First Action Official Method, 2006.

Allergens, Bert Popping

Determination of Peanut Material in Food by a Sandwich Enzyme-Linked Immunosorbent Assay.—Study Director Mark Mozola, Neogen Corp., 620 Leshler Pl, Lansing, MI 48912, Tel: 517-372-9200, Fax: 517-372-0108, E-mail: mmozola@neogen.com. Study on hold.