

Technical Division on Reference Materials, AOAC INTERNATIONAL

Wayne R. Wolf,
U.S. Department of Agriculture
Beltsville, Maryland
August 2008

The Technical Division on Reference Materials (TDRM) of AOAC INTERNATIONAL came into being at a nexus of individual and organizational ideas and activities in 1992. These included the established series of Biological and Environmental Reference Material Symposia (BERM), significant recent activity by AOAC in response to the Nutrition and Labeling Act of 1990, a recent expansion of the mission statement of AOAC and the recent approval of AOAC to establish Technical Divisions within AOAC. Since these activities are largely autobiographical I will briefly outline them.

BERM: My career long interests in developing food standards evolved through efforts on specific materials over the years from 1976 (when I joined the newly formed Food Composition Laboratory, USDA Beltsville, MD). In October of 1982, I undertook a two week tour of approximately 10 European organizations/investigators becoming involved in various aspects of food standards. Upon a visit at the end of the first week with Dr. Herbert Muntau, Joint Research Center, Ispra, Italy, discussion included not only exchange of ideas about mutual standards activities, but turned to discussion of the previous and remainder of visits on my itinerary. Dr. Muntau commented about a number of locations, that while he had some knowledge of the work of these organizations, he had not personally met the people. Since I had heard this same comment at all of my previous stops, the idea for a workshop bringing these people together was broached. At that time there had been no international workshops in this area. Upon leaving Ispra, I went to Zurich, stayed overnight and took the train the next day to Vienna. Before boarding the train, I purchased a small bottle of wine and some bread. During a very enjoyable train ride through the Swiss and Austrian Alps, I planned what was to become the first Biological Reference Materials Workshop. In Vienna, I visited with Robert Parr, of the International Atomic Energy Agency, who verified the idea of the workshop. This idea was further verified during the remainder of my visits the second week of the tour.

Upon my return home, in collaboration with James Tanner of the US Food and Drug Administration, we further refined the idea of the workshop. We got the commitment of a small organizing group and held the first BRM workshop with about two dozen participants at a professional meeting in Philadelphia in October of 1983. Success of this workshop led to follow-up meetings on a two year basis. Dr. Markus Stoeppler, Joint Research Center, Julich Germany joined me as a general organizer for subsequent meetings, bringing in a network of environmental analysts through his involvement with the German Environmental Specimen Bank. The 12th BERM meeting will be held in Oxford England in July 2009.

NLEA –AOAC Activity: In 1990, the Nutrition Labeling and Education Act mandated, for the first time in the United States, food labels containing information about nutritional content of nearly all processed foods. To accomplish this task, analytical data must be generated for hundreds of thousands of foods. To address the analytical demands of NLEA, AOAC INTERNATIONAL formed the Task Force on Methods for Nutrient Labeling Analysis, which identified and documented the availability of methods for nutritional analysis. The task force assessed AOAC Official Methods relative to the labeling regulations, recommended further study for nutrients with inadequate methodology and produced a manual of Methods of Analysis for Nutrient Labeling. (1)

The task force also recognized that when methods are used in an analytical laboratory, or are modified, the precision and accuracy of the method application must be established. Accuracy requires that a material or standard with certified concentration of the analyte must be measured. Thus, the NLEA task force formed a Subcommittee on Reference Materials. Because of my experience with the BERM meetings, and role at that time as a USDA/NIST Research Associate in the SRM Program at NIST responsible for food related SRM project management, I had the honor of chairing this sub-committee, which brought me into active involvement with AOAC. A chapter on Standard Reference Materials was included in the Nutrition Labeling manual.

AOAC-BERM involvement. Because of the new Reference Material activity related to the NLEA Task Force, AOAC was invited to participate in the BERM-5 meeting held in Aachen, Germany, May 1992. I had felt that a major factor in the success of the BERM symposium by that time was the fact that it was purposely not aligned with any one of the major standards producers. Markus Stoeppler and I had remained co-chairs of the symposia, independent from a single producer. However, it was time to formalize and find an organization home for the symposia series to ensure its long-term viability.

One evening at BERM -5 we had a discussion with Ron Christensen, Executive Director of AOAC INTERNATIONAL, wherein I first broached the idea of AOAC becoming the umbrella home for the BERM Symposia. Upon returning home and in subsequent discussion, Ron suggested the possibility of a wider role for AOAC. AOAC had just expanded its mission statement to include general promotion of the quality of analytical measurements in addition to providing validated analytical methods. AOAC had also just approved the establishment of Technical Divisions within AOAC. Ron thus suggested that we form the initial Technical Division within AOAC with BERM being one of its functions. This idea met the positive approval of Markus Stoeppler and also my long time collaborator (and co-conspirator) Jim Tanner, FDA, a long time very active member of AOAC. With the expert help of Nancy Palmer, the Technical Director of AOAC, we (Jim and I) refined the idea. We sold the idea to a select group of 18 AOAC members (Accompanying Photo), chosen to represent a variety of the component organizations making up the AOAC Membership and the active decision makers within the organization. This group met in an initial organizing meeting on December 8, 1992 at AOAC Headquarters in Arlington VA and developed bylaws and a proposal for presentation to the AOAC Board of Directors. The stated purpose of the TD in this proposal was: “To focus AOAC activities in the area of criteria, development and use of reference materials in quality measurements and method validation.”

Formation of the Technical Division on Reference Materials was approved by the AOAC Board in March 1993. This innovative idea from Ron Christensen was in line with a change in direction at that time by AOAC. This brought an already established network in the area of reference materials (BERM) into the organization. The TDRM met with positive acceptance and grew to over 400 members in the first few years of its existence.



Photo, left to right: First row: Jon DeVries, James Tanner, Wayne Wolf, Songsu Lee, Norm Fraley Back row, standing: Karen Andrews, David Soderberg, Don Carpenter, Jerry Ngeh-Ngwanbi, Edgar Elkins, Roy Lyons, Leon Prosky, William O. Landen, Jr, Darryl Sullivan, Ken Boyer, Dave Firestone (front), Phil Oles (rear), Neal Craft.

[RETURN TO MAIN HISTORY PAGE](#)

[RETURN TO MAIN TDRM PAGE](#)