

AOAC INTERNATIONAL

Technical Division on Reference Materials

INÉS CEREIJO
AOAC INTERNATIONAL TDRM
STUDENT AWARD

December 2, 2003

1. Introduction

In a science curriculum, even in an analytical chemistry class, there is often little emphasis on method performance evaluation other than basic statistics for evaluating precision. Every day, large- and small-scale decisions are based upon analytical data which may be produced by a method or method system which has not been challenged. Method evaluation plays a critical role in data integrity. A method that is unchallenged or underevaluated can produce results that can lead to poor decisions. A very important step in assessing method performance occurs through the use of reference materials. With that awareness, the TDRM seeks to motivate students at the college level to incorporate more rigorous method performance evaluation as a part of their education and research. By taking an active role in shaping the thinking of developing scientists, the TDRM hopes to increase the awareness of the need for method evaluation prior to method selection and implementation, and thereby increase the reliability of published data.

This award will be offered annually to both undergraduate and graduate students on an international basis. Because some colleges do not have resources which allow research to be done by students, the award will be based upon a report that evaluates the use of a reference material for a specific application, such as method performance evaluation or method validation, or the development of a reference material to fit a new or existing need. The report can describe research which has been performed by the student or work which is proposed, or it can be an evaluation the use of reference materials in data that has been published.

An award in the amount of \$500 will be given to the student whose final report scores the highest value through the evaluation process. In addition, for award recipients who attend the annual meeting, a \$250 travel grant will be given, the meeting registration fee will be paid and a hotel room will be provided during the annual meeting. For all recipients, a guest student membership for AOAC INTERNATIONAL and the TDRM will be given for that year.

2. Eligibility for Award

2.1. Requirements for Eligibility

Both undergraduate and graduate students are eligible to receive this award. Award recipients from a previous year are not eligible to compete for the award in subsequent years.

2.2. Submitting an Application

An application form must be received no later than December 31 of each calendar year for an applicant to be eligible to compete for the award that will be presented in the following year. This form is available from the TDRM web site or by requesting a copy via mail from the AOAC INTERNATIONAL.

The instructions and address information for submitting the application are provided on the form. Applications may be submitted by email, fax or postal mail. The address provided by the applicant on the form will be the address used by the TDRM for all correspondence with the applicant.

3. Submission of Report for Award Competition

3.1. Report Requirements

A report must be submitted which details the use of a reference material in a method application or the development of a reference material to meet a specific need. The report will be an essay format. Resources used must be cited on a reference page as an attachment. When a definition of a term is used that is not consistent with the AOAC definition, that definition and its reference must be specified. If the use of a specific reference material is described in the report, a copy of its Certificate of Analysis must be attached. The body of the report should not be more than three pages in length, and the font size used should be no smaller than 10 point and no larger than 12 point. This report, and all communications regarding this award, must be submitted in the English language. The report must be entirely the work of the author. All reports become the property of AOAC INTERNATIONAL. Copies of the award recipient's report will be made available to members of the TDRM at the annual business meeting.

3.2. Evaluation Criteria

1) Content - how well the body of the report describes the appropriate use of a reference material or the development process of a proposed reference material. [70 points]

The following points will be considered in this part of the evaluation. Some will not apply, depending upon whether the reference material is being used for method validation, method performance evaluation or development of a new reference material.

- What is the purpose of this analysis?
- What steps were taken to locate an available reference material?
- What criteria were used to evaluate the suitability of the reference material? (matrix, analyte range, stability, etc.)
- How well does the reference material described or proposed fit that application?

- Does the report describe why the reference material is needed?
- What was considered in the selection of the analytical method?
- What criteria were established in advance to accept, revise or reject the method or the results?
- How well, in retrospect, did the reference material support the method evaluation?
- What additional data quality evaluation was incorporated?

2) Creativity and originality. [10 points]

3) Clarity of communication. [20 points]

4) AOAC student member. [5 points]

3.3. Submission Deadline

Final reports must be received no later than June 1 of the award year to be eligible for consideration. Final reports must be submitted to the AOAC Program Manager, Method Validation at the address provided on the application form. Submission of completed reports by email is preferred, but reports submitted by fax or postal mail are also accepted.

4. Evaluation & Selection

Applications or final reports which are not received on or before the due dates will not be eligible for evaluation. Reports which do not contain all required attachments will be considered incomplete and will not be eligible for evaluation.

A scoring form will be used to evaluate each report. Each report will be reviewed by a member of the TDRM Awards Committee. Each member of the TDRM Awards Committee will present to the other members of the Awards Committee the reports to which he or she gave the three highest scores. The average of the scores for those reports will be used to determine the successful applicant.

5. Notification & Distribution

Letters will be sent to all applicants informing them of the decision. A letter will be prepared to notify the selected applicant no later than July 1 of the award year and to determine whether the selected applicant will be attending the annual AOAC INTERNATIONAL meeting. To be eligible for the additional travel benefits, the recipient must confirm no later than August 1 of the award year if he or she will be attending the annual meeting.

Distribution of the award benefits will be as follows:

- 1) A check in the amount of \$500 will be prepared for presentation to the recipient at the annual meeting. If the recipient will not be able to attend the annual meeting, the check will be mailed to him or her.
- 2) If the award recipient confirms by August 1 that he or she will be attending the annual meeting, a hotel room will be arranged and pre-paid by TDRM for the recipient, at an amount not to exceed \$500 and for no longer than 4 nights.
- 3) If the recipient confirms that he or she will be attending the meeting, an additional check will be prepared in the amount of \$250 as a travel grant. This will be presented to the award recipient with the \$500 award at the annual TDRM business meeting.
- 4) TDRM will pay for the meeting registration and annual AOAC and TDRM membership fees.
- 5) The award recipient will be announced at the TDRM Business Meeting at the AOAC INTERNATIONAL Meeting each year.

Approved December 3, 2003
Revised September 17, 2006