

AOAC International

Technical Division on Reference Materials

**INÉS CEREIJO
AOAC INTERNATIONAL TDRM
STUDENT AWARD**

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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 insufficiently challenged for robustness, reproducibility, and other critical performance factors. 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 at any college or university. Because some academic institutions do not have sufficient resources to allow research 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, 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 for the use of reference materials in data that has been published.

An award in the amount of \$1000 will be given to the student whose final report scores the highest in a formal evaluation process. In addition, award recipients who attend the annual meeting will present a poster and receive complimentary meeting registration and TDRM membership. They will also receive a travel fund to attend the AOAC Annual Meeting & Exposition for up to 4 nights (up to \$1000 for accommodations, \$500 for transportation and \$400 per diem) in accordance with AOAC Travel Policy. Funding amounts are dependent on commitments by the award sponsor(s) and are subject to change. Changes, if any, will be posted to each prior year's request for applications announcement.

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. Application Guidelines

The application submission process will align with other AOAC Student Awards. A public announcement will take place when applications are open on the AOAC International website and be announced through *The Spectrum* (January of the award year). The Inés Cereijo AOAC International TDRM Student Award Application Form will require the student's contact, institute, and degree information, a 200-word abstract summarizing their report and section for uploading their Report (See report requirements and evaluation criteria in Section 3). Applications must be completed by the deadline outlined by AOAC (end of April of the award year). Award recipients will be announced in June of that year.

3. Submission of Report for Award Competition

3.1. Report Requirements

A report must be submitted that details the use of a reference material within the context of method development, method performance evaluation, or routine use of a method 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 reference source must be cited. 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. The recipient will be encouraged (but not required) to submit the properly formatted report to *J. AOAC Int.* as a short communication or research article.

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 criteria or elements 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]

4. Evaluation & Selection

Applications must include final reports. Applications received after the due date will not be eligible for evaluation. Reports that 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 they gave the three highest scores. The highest average of the score for the reports will be used to determine the successful applicant. If less than three total reports have been submitted, then all members of the TDRM Awards Committee will review all reports and assign scores to each report, with the highest score determining 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 June 15 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 agree to present a poster at the Annual meeting and confirm intent no later than June 30 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 \$1000* will be prepared for presentation to the recipient at the TDRM Business Meeting during that year's AOAC International Meeting. If the recipient will not be able to attend the annual meeting, the check will be mailed to them.
- 2) If the award recipient confirms by June 30 that they 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 \$1000* and for no longer than 4 nights.
- 3) If the recipient confirms that they will be attending the meeting, the student will arrange transportation (up to \$500* value) and will submit receipts for reimbursement.
- 4) If the recipient confirms that they will be attending the meeting, they will be provided up to \$400* (\$100/day) per diem.
- 5) TDRM will pay for the meeting registration and annual TDRM membership fee for one year.
- 6) The award recipient will be announced at the TDRM Business Meeting at the AOAC International Meeting each year.
- 7) The student will present a poster at the annual meeting poster symposium.

*Note: Award funding is contingent on award sponsorship and subject to change. Changes will be finalized prior to award application announcement each year.