

The *Open Medicine* Student Peer Review Program

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Acquiring the skills to do a meaningful peer review should be a competency learned as part of a Master's or PhD program. *Open Medicine* has provided this unique opportunity to a group of graduate students in the Department of Community Health Sciences at the University of Calgary. Under the guidance of faculty advisor and *Open Medicine* associate editor Dr. William Ghali, the students regularly participate in peer reviewing manuscripts for Open Medicine. Additionally, members of the Student Peer Review Program have had the unique opportunity to participate in editors' calls to actively discuss the papers they have reviewed. The interdisciplinary nature of the student group, along with recent course work in methodology has allowed the students to share insights into manuscripts in a more meaningful way than by reading them individually. Indeed, through graduate training in various research methodologies, the students collectively possess considerable expertise that has made them a valuable expert resource to the Open Medicine editorial team. Building on the expertise from coursework and their own research projects, participating students have also attended presentations on how to review papers, the revise and resubmit process, and more specific topics that arise from particular papers.

Peer review is a necessity to ensure the scientific rigor in publications, yet the elements that constitute a good review remain elusive. Peer review of manuscripts is central to most bio-medical journals. The sheer number of articles reviewed and volume of donated time required for review is monumental. Most submissions are peer reviewed

by at least two experts even though many journals accept less than 25% of the papers submitted. The quality of reviews varies from the cursory single paragraph review to the ten-page exegesis with everything in between. Thus, we believe that incorporating educational programs on the skills of peer reviewing is of value.

Of some challenge to our endeavour, the “how-to” of writing a good review is not yet well defined. Most journals provide some instruction on what questions to address or issues to consider, but say little about the less tangible attributes of writing a review. Instructions typically include specific things to look for in a manuscript, such as strengths and limitations of the research, appropriateness of study design and method, validity of the fit between results and conclusions drawn, and so on (1, 2). Questions beyond these basic instructions must address issues such as the various approaches to the peer review process; how comments to the editors and authors are handled; the appropriate length; and how the general tone of the review should be couched. *Open Medicine* has thus tried to guide a group of graduate students (i.e. future scientists) in some of these areas.

As part of the program, *Open Medicine* invited the three leaders of the Student Peer Review Program Prabh Lail, Krista Wilkinson, and Amy Metcalfe to attend their Editorial Board meeting. Through this experience, students have gained valuable insight into the importance of open access information and reporting guidelines. The next step for this program, is going to be orienting students to the EQUATOR website, and explaining reporting guidelines in scientific research; this exercise will help students become better reviewers and will also improve their own work.

Overall, the Student Peer Review Program has been a successful endeavor; helping students to critically read and review scientific work, use their methodological

skills, and refine their own writing. *Open Medicine* would encourage the proliferation of such programs at other universities, as this valuable part of academia is not formally taught in most graduate programs. *Open Medicine* has been supportive to the students at the University of Calgary, and will welcome expressions of interest from other centres to set up similar mentoring programs.

References