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## Introducing the SURGERY Peer Review Academies

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The editorial peer review process is important for the critical appraisal and adjudication of the surgical literature. There are nearly 500 surgical journals currently in publication, and nearly all of them require peer reviews prior to manuscript acceptance.<sup>1</sup> However, less than half of journal invitations to review are accepted and, of those that are accepted, only 58% ultimately submitted a review on time.<sup>2</sup> There is a critical need to increase the pool of qualified peer reviewers in surgery.

Peer review experience is an important component of promotion. Academic institutions value experiences such as peer review experience in the promotion process. Importantly, involvement in peer review leads to opportunities to join editorial boards, which in turn leads to opportunities to serve as an Editor or Editor-in-Chief of a peer-reviewed journal. Each of these experiences contributes to one's value for promotion.

Formal opportunities for training in peer review are lacking, particularly among surgeons. Performing peer review without developing a foundational skillset in a structured manner can contribute to publication bias in the scientific literature. Development of this skillset is not a standard component of medical education curricula. Some surgical specialties have offered limited opportunities for formal education in peer review.<sup>3,4</sup> Additionally, some publishers and scientific journals provide online modules for general peer review guidance. However, there are no surgical peer review training courses that we are aware of that focus specifically on the education and mentorship of women.

In order to address the needs of diversification of, and education in, the peer review process, we have created two novel iterations of a Peer Review Academy with the leadership of *Surgery*. The first iteration was initiated in October 2021 in joint partnership with the *Association of Women Surgeons (AWS)*. The goal of the *AWS-Surgery* program was to increase female representation within the peer reviewer pool. Prior research has shown that women are invited to perform peer review less frequently than their male peers, regardless of level of experience or expertise.<sup>5,6</sup> In addition, as of 2020 only 6.7% of all surgical journals were led by women editors, and only 25.6% of surgery journal editorial board members were women.<sup>7,8</sup>

Over a 12-month period, 10 female mentors and 10 female mentees participated in the inaugural *AWS-Surgery* Peer Reviewer Academy. Mentors were women surgeons with extensive experience in peer review. Mentees were women surgical trainees (residents and fellows) with an interest in the peer review process. All participants participated in monthly didactic modules given by experts in surgical peer review, as well as assignments and

discussions interspersed throughout the year via an online education platform. As part of the curriculum, each trainee performed three formal peer reviews for *Surgery* with the guidance of a rotating assigned mentor. The program was a great success; we were able to show significant improvement in the mentees' peer review skills through both quantitative and qualitative analytic methods. A complete report of those findings will be detailed in an original manuscript to be published in *Surgery* at a future date.

Given the overwhelming success of the Peer Review Academy, *Surgery* Editors-in-Chiefs Drs. Kevin Behrns and Steven Wexner solicited the creation of a second version of the program geared toward early career surgeons. This year, we are hosting versions of both the original *AWS-SURGERY* Peer Review Academy for female surgical trainees, and a new *Surgery* Peer Review Academy for board-eligible surgeons interested in peer review. The latter version of the initiative involves 18 mentees paired with 18 *Surgery* editorial board mentors, and will follow a similar curriculum including didactic and practical peer review components.

Overall, the goal of these initiatives is to increase trainee and early career surgeon exposure to the peer review process, and to augment the available pool of fair, engaged peer reviewers. Longer term, we hope to be able to show diversification of the peer review pool as a result of these efforts, including both women and underrepresented minorities. In order for these efforts to be effective, we must achieve buy-in from the journal leadership, editorial board, and potential mentees. The leadership of *Surgery* have fully embraced this process, and are committed to revolutionizing the concept of peer review education moving forward.

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