

# **Bridging the Otolaryngology Peer Review Knowledge Gap: A Call for a Residency Development Program**

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## **Abstract**

Current otolaryngology literature and future scientific direction rely heavily on a rigorous peer review process. Just as manuscripts warrant thoughtful review with constructive feedback to the authors, the same can be said for critiques written by novice peer reviewers. Formal scientific peer review training programs are lacking. Recognizing this knowledge gap, Otolaryngology–Head and Neck Surgery is excited to offer its new Resident Reviewer Development Program. All otolaryngology residents who are postgraduate year 2 and above and in excellent academic standing are eligible to participate in this mentored program, during which they will conduct 6 manuscript reviews under the direction of a seasoned reviewer in his or her subspecialty area of interest. By completing reviews alongside a mentor, participants gain the required skills to master the peer review process—a first step that often leads to journal editorial board and associate editor invitations.

**Keywords:** peer review, resident education, otolaryngology research

Current otolaryngology literature carries significant impact on clinical practice and ongoing scientific investigations. Consequently, the direction of our field relies heavily on a rigorous peer review process. Scientists can perform the most methodologically sound and novel study with flawless statistics and meaningful outcomes, but without experienced peer reviewers, the publication may never come to fruition.

Merriam-Webster defines peer review as “a process by which a scholarly work is checked by a group of experts in the same field to make sure it meets the necessary standards before it is published.”<sup>1</sup> It

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This is the author's manuscript of the article published in final edited form as:

Schmalbach, C. E. (2016). Bridging the Otolaryngology Peer Review Knowledge Gap. *Otolaryngology--Head and Neck Surgery*. <https://doi.org/10.1177/0194599816647927>

is assumed that, upon residency graduation, otolaryngologists will have acquired such necessary skills and knowledge simply by working each day and participating in journal club. However, studies have shown that postgraduate year level and journal club participation do not correlate with the ability to conduct a meaningful peer review.<sup>2</sup>

We are fortunate to have access to American Academy of Otolaryngology—Head and Neck Surgery Foundation instruction courses, online videos,<sup>3,4</sup> and publications<sup>5</sup> to serve as a guide for the peer review process. Yet in reality, the first journal review is submitted in a somewhat blinded fashion, with the peer reviewer anxiously awaiting the final disposition and editor/reviewer comments to determine accuracy and areas for improvement. In doing so, otolaryngologists learn the peer review process through “on-the-job training.”

Just as manuscripts warrant thoughtful review with constructive feedback to the authors, the same can be said for the critiques written by novice peer reviewers. However, formal training programs are lacking for scientific peer review. This knowledge gap is recognized by many.<sup>6-9</sup> Proposals have been made to formally incorporate peer review training into postdoctoral research programs.<sup>7</sup> In addition, fellowships and mentored programs related to becoming a physician-scientist editor are emerging.<sup>8,9</sup> Yet, a significant medical knowledge gap remains at the peer review level.

Recognizing the importance of the peer review process to our otolaryngology literature as well as the absence of formal training, Otolaryngology–Head and Neck Surgery is excited to offer its new Resident Reviewer Development Program. This program was established through the efforts of the Journal Reviewer Development Group, composed of Cristina Baldassari, Sarah Bowe, Jeffrey Liu, Sonya Malekzadeh, Andrew Shuman, and Larry Simon, with staff liaison Collin Grabarek. I had the privilege of chairing this remarkable group of otolaryngologists who are committed to both scientific integrity and resident education. The program was then vetted through the editorial board. Completion of this program will be the pathway through which residents are permitted to participate as reviewers with the journal and submit independent peer reviews of manuscripts.

Given the rigors of internship, the program will be offered to all otolaryngology residents who are postgraduate year 2 and above. A standardized letter of recommendation is required from the program director to ensure that the resident is in excellent academic standing, to not detract from residency responsibilities. Once accepted into the program, residents will have the ability to select their subspecialty area of interest and be paired with a mentor. To ensure the highest quality of training as well as standardization in the program, Otolaryngology–Head and Neck Surgery editorial board members and star reviewers are invited to voluntarily serve as peer review mentors.

The peer review training begins with reading Dr Richard Rosenfeld’s article “How to Review Journal Manuscripts.”<sup>5</sup> Participants will also be required to view online videocasts addressing the peer review process and the sister instruction course.<sup>3,4</sup> The resident will also be invited to attend the American Academy of Otolaryngology—Head and Neck Surgery Foundation’s Annual Meeting instruction course on reviewing journal manuscripts. These educational tools will equip the resident to embark on the peer review process.

A one-on-one, apprenticeship-style mentor program was established to ensure continuity and progression in education. Each time the mentor is invited to conduct a peer review for Otolaryngology–Head and Neck Surgery, the resident will be asked to conduct a similar review using a standardized template. Each mentee will perform 6 comprehensive peer reviews under the direction of his or her seasoned mentor. A standardized template will be completed by the mentor to ensure timely, meaningful feedback for each review. Residents will receive a copy of the final decision letter sent to the authors so that they can read all comments provided from the editor, associate editor, and other reviewers. When applicable, mentees will be invited with their mentors to review resubmissions. It is important to note that the mentor will always remain responsible for conducting and submitting the actual review, to be fair to both the investigators and the Otolaryngology–Head and Neck Surgery peer review process.

The mentee will complete the Resident Reviewer Development Program after the completing 6 mentored reviews. At that time, the mentor will make a recommendation to the program leadership. If

appropriate, the mentee will be invited to perform an independent review. The resident will be considered an Otolaryngology–Head and Neck Surgery independent reviewer if the review scores  $\geq 75$  on the current journal rating scale.<sup>10</sup> As educators, we cannot abandon our trainees. Therefore, if the resident does not achieve this score, she or he may continue in the mentorship program until passing or voluntarily withdrawal.

A sound peer review system is the cornerstone to our otolaryngology literature. Learning the peer review process and conducting meaningful, well-written reviews is a labor-intensive but rewarding process. It is goal of the Otolaryngology–Head and Neck Surgery Resident Reviewer Development Program to provide a positive and meaningful experience. By completing reviews alongside a seasoned mentor, participants gain the required skills to master the peer review process—a first step that often leads to journal editorial board and associate editor invitations. Success of the program will be measured with resident feedback as well as objective metrics to include average manuscript review scores, number of program graduates achieving star reviewer status, time to star reviewer status, number of graduated invited onto an editorial board, and number of authored peer review publications.

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