EDITORIAL

Guidelines in cardiovascular research, a first for the American Journal of Physiology-Heart and Circulatory Physiology

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Certainly, those of you who are avid readers of and contributors to the American Journal of Physiology-Heart and Circulatory Physiology are familiar with the types of articles published in this distinguished journal. These include original research, reviews, innovative methodology, rapid reports, perspectives, editorials, and editorial focus articles. With the publication in this issue of the paper by Hart et al. (1), the journal is initiating a new kind of manuscript type that we are tentatively calling “Guidelines in Cardiovascular Physiology.” While these articles will fall under the “review” article type, they will be substantially different than traditional reviews.

The vision for guideline articles is to focus on a particular methodology or practice and to obtain a consensus opinion from individuals who work in the area to describe “best practices” in each field. While these articles will incorporate some aspects of “how to” discussion, they will also provide data and pertinent references to support best practices. Because reproducibility of scientific experiments is a concern of the scientific community, funding agencies, and scientific publishers, the journal feels obliged to publish consensus statements that may help investigators sort out the “Do’s and Don’ts” of a particular methodology or approach, especially for those just entering a field. I am aware of the fact that there may be more than one way to achieve valid results. Indeed, guidelines in cardiovascular physiology review articles will try to cover multiple approaches, if warranted. Our aim here is to be as helpful to cardiovascular investigators as possible and to circumvent things that are not particularly useful or rigorous.

In the paper by Hart et al. (1), the aim is to cover techniques and validation of sympathetic nerve recordings in small and large animals as well as in humans. The field of autonomic physiology is fraught with the use of surrogates for sympathetic nerve activity. Furthermore, the use of anesthetized animals to quantify sympathetic nerve activity may be problematic. The authors provide their consensus on the best practices for obtaining high-quality single and multunit recordings. The authors also report on the criteria needed to validate nerve activity and avoid the pitfalls related to reporting erroneous sympathetic outflow to various target tissues.

As one can imagine, it takes a great deal of time and effort for nine investigators, scattered around the world, to come to a consensus in the development of a paper like this. It took more than a year of conference calls, assigning writing tasks, and sharing figures for the authors to craft an outstanding document. The editors are extremely grateful to the authors and hope our readers feel the same.

There are several guidelines in cardiovascular physiology papers in the pipeline at the American Journal of Physiology-Heart and Circulatory Physiology. The editors are confident that these articles will be of value to our readers. Importantly, a bonus to the guideline papers will be the production of an extended podcast author interview, offering listeners the opportunity to hear these authors—leading experts from around the world—describe their key points during an informal discussion with the editors. Look for this soon.

Finally, we value your feedback and hope that you will write to us with ideas for making guidelines in cardiovascular physiology reviews better. The editors are open to your new suggestions for future topics. As always, we thank you for reading and supporting the American Journal of Physiology-Heart and Circulatory Physiology and the guideline articles.

DISCLOSURES

No conflicts of interest, financial or otherwise, are declared by the author(s).

REFERENCE