Transition in Editorship

This issue marks the beginning of my editorship of the Journal of Applied Physiology. Under the leadership of John Remmers and his capable team of Associate Editors, the Journal has thrived, and its long-standing tradition of scientific excellence has been enhanced. For their tireless service, I join the members of the American Physiological Society and the many contributors to the Journal in expressing our deepest gratitude.

Based on this solid foundation, my role and that of my Associate Editors is to guide the Journal into the next millennium. Toward this end, the new team of Associate Editors and I met in Bethesda, MD, in March 1999 to review the current status of the Journal and to establish goals for the future. We all agreed that the Journal has many strengths on which to build. It emphasizes diverse areas of research in applied physiology that reflect adaptive and integrative mechanisms. In the area of adaptive physiology, papers include research on both inherent adaptations related to development, aging, and pathophysiological conditions and adaptations to the external environment such as exercise, microgravity, hypoxia, hyperbaria, and hyperthermic conditions. In the area of integrative physiology, papers include research that examines both horizontal integration across organ systems and vertical integration, from molecule to cell to organ. In the future, we believe it is important that the Journal encourages the use of cutting-edge genetic, molecular, and cellular techniques at such adaptive and integrative levels.

This is an exciting time for applied physiology, as physiologists translate the remarkable discoveries of molecular genetics and, specifically, the human genome project into an understanding of how the body works. A number of gene products have been identified, but their physiological role is as yet unanswered. We believe that identifying the physiological role of these gene products will define modern applied physiology and that, as applied physiologists, we are uniquely equipped to translate the basic observations in molecular genetics into an understanding of the human body. Therefore, applied physiologists have the opportunity to fill an important niche in the continuum defining physiological genomics. In this respect, many of us see applied physiology as a pyramid, with a broad base in fundamental physiology, pharmacology, biochemistry, and molecular and cellular biology; an intermediate portion assessing organ structure and function, with a focus toward integration across physiological systems; and a pinnacle evaluating human performance.

The modern physiologist integrates biological information ranging in scale from a few atoms to the whole organism. In doing so, the applied physiologist cannot be confined to any one scale or class of experimental techniques. Unfortunately, in recent years, the perception of applied physiology has been skewed by the thought that it is somehow old fashioned and thus not very important. The community of physiologists may have inadvertently contributed to this perception by letting others define both the mission and essence of the discipline. As a result, cutting-edge papers in applied physiology are all too often submitted to other journals. It is our intention to correct this misperception within the scientific community and to demonstrate that such research is essential in the translation of basic biological observations into an understanding of physiological adaptations and integrative physiology.

To move the Journal forward and change the perception of applied physiology within the scientific community, we must find ways to improve the quality of published papers. This cannot be achieved by a higher rejection rate alone. Instead, we must strive to attract and publish papers that represent major advances in applied physiology. To enhance the impact of published articles within the scientific community, I and my Associate Editors will embark on a number of new initiatives.

Most importantly, we will be more proactive in soliciting original papers that represent major advances in applied physiology and those that use cutting-edge techniques, such as gene transfer, transgenic models, molecular biology, and cellular imaging. We will communicate with potential contributors through direct contact at national and international meetings and via E-mail and letter campaigns. In addition, we will periodically announce a “call for papers” in selected areas of particular interest.

To refocus the Journal, we will publish invited mini-reviews directed toward succinctly summarizing the current state of the art in a given area of research and providing recommendations for future direction of research.

We will make specific recommendations to authors in the selection of key words and phrases to increase the probability of “hits” in computerized searches.

Another major goal of the new editorship will be the streamlining of the review process. Beginning this month, we will implement the online submission of manuscripts to the Journal as well as an online review process using the Internet as a communication vehicle. The handling and mailing of manuscripts introduced significant delays in the review process that can be substantially shortened using online technology. We will expedite the review process in all cases, but this will be especially true for manuscripts at the cutting edge that provide a significant advance in selected focus areas of applied physiology. With the online submission and review process, we will strive to have such papers reviewed within two weeks, and, if only
minimal revision is required, they will be forwarded for expedited publication. Currently, the production process represents a minimal delay in publication of two to three months.

Finally, we will provide the Journal with an updated graphic image. This will include a new cover that conveys aspects of the Journal's goals and scope. In addition, the Journal will provide free color figures in papers published by members of the American Physiological Society, if the color is scientifically warranted.

The Associate Editors and I are totally committed to the American Physiological Society and to the Journal of Applied Physiology. The Journal has an outstanding history and reputation in publishing articles of the highest quality. The area of applied physiology has a very bright future, and our job is to attract the very best work to the Journal. Toward this end, we encourage all investigators to submit their best work to the Journal, and we promise that these papers will receive a timely and fair review.

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Journal of Applied Physiology
July 1999, Volume 87