

From the Editor

Over the past 2 years I have had the opportunity to get back into the perfusion community by going to a number of different meetings and of course through the knowledge being transmitted via the *Journal of ExtraCorporeal Technology (JECT)*. It has been interesting to see how the profession has moved forward using new technologies to improve the conduct of perfusion and to gather data, and at the same time seeing how much has stayed the same in terms of what is known of the pathophysiology of cardiopulmonary bypass (CPB). Many questions that have been asked 20 years ago are still being asked today. This is primarily due to the inability to measure alterations at the tissue or cellular level. Global measures of perfusion and hemostasis are still being used to conduct CPB. These global measures make it difficult to know what and how tissue and cells react to CPB. In essence, perfusionists are expected to think locally (i.e., at tissue and cell level), but act globally.

That being said, the profession has definitely moved forward and outcomes have improved incrementally, but further work is still required. This work will require asking different and better questions of how CPB acts locally, finding the answers to these questions, and applying what we learn. The *Journal of ExtraCorporeal Technology* is one source for seeing what is new and different. It is encouraging to see that the profession, as represented by the authors of the articles in the December issue, is continuing to ask questions and seek answers and share their findings with the entire perfusion community.

In this issue there are eight original studies, three case reports, and two technique papers. The original studies range from insights about circuit performance, hemostatic management strategies, pathophysiology of CPB, and the use of data analysis to examine different aspects of the conduct of perfusion on patient outcomes. The case reports provide observations about how perfusionists and their cardiac surgery teams have dealt with challenging patients. Finally, the technical papers provide new insights



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on how to approach problems or issues associated with the conduct of perfusion.

I thank the authors for their hard work and tenacity of completing the process of generating new knowledge to share. I also thank the *JECT* reviewers who have taken the time to review the articles and provide thoughtful criticism and mentorship to the authors.

A heads up: In January 2018, the STS/SCA/AmSECT Clinical Practice Guidelines: Anticoagulation During Cardiopulmonary Bypass will be published simultaneously in the *Annals of Thoracic Surgery*, *Journal of Cardiothoracic and Vascular Anesthesia*, and on the AmSECT website (and in the March 2018 *Journal of ExtraCorporeal Technology*). These guidelines were developed by an Evidence-Based Workgroup consisting of members of the Society of Thoracic Surgeons, Society of Cardiovascular Anesthesiologists, and the AmSECT. The guidelines are an attempt to fill in the knowledge gaps and to establish best practices in the area of anticoagulation. Please be sure to check the AmSECT website in January for these guidelines.

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Editor-in-Chief