Preface

This volume is the publication of papers presented at the 44th annual meeting of the International Society on Oxygen Transport to Tissue, ISOTT, held in Chicago, IL, USA, from July 10 to July 14, 2016. I believe it represents a wonderful variety of perspectives focusing on a great deal of the areas of research on the transport of oxygen to tissues. The work presented has been subjected to peer review by the leading experts in this area. Through the review by members internationally recognized for their contribution to the field, the science therein is of the highest quality.

The meeting involved 105 scientists from 60 institutions in 15 countries from North America, Asia, and Europe. Given the busy schedules of many of the best-known participants, topics were spread throughout the meeting. In the best tradition of ISOTT, this allowed presentations and presenters to mingle with researchers from intellectually distant backgrounds. The exotic spice of new ideas was thereby mingled with the broth of established understanding to stimulate the true value of this meeting: innovation.

The meeting keynote presentation was given by Greg Semenza, who at the time had not yet won the Lasker Award for 2016, detailing the latest research on molecular biology of the required organismal response to low levels of local oxygenation. From molecular biology to individual human response, to oxygen changes monitored by optical/near-infrared spectroscopy/tomography, to novel electron resonance spectroscopy and spectroscopic imaging, to progress in blood substitute research, retinal physiology, etc., the quality and innovation of the research and those involved in it were outstanding and exciting. In-depth presentations from our internationally recognized experts accompanied wide-ranging shorter presentations. As in recent past meetings, poster information was communicated to the meeting attendees as a whole with succinct poster summary presentations that allowed our participants to focus on the novel, compelling the poster sessions.

In addition to the presentation of science, the history of ISOTT has revolved about the opportunities that the meeting and its venue provided for productive scientific exchange between attendees. The location of the meeting at a boutique in the heart of Chicago’s Miracle Mile provided relaxed access to the most diverse restaurants, from small inexpensive but high-quality quiet venues to some of the finest in the
world. Here, in-depth discussions could extend into the evening free of constraint. The history of the city, considered by many to be the architectural capital of the USA, was elucidated during the Chicago River tour. The vistas provided by the 95th floor banquet, the weather performance of a July storm with its second-order (and perhaps third-order) rainbow after dinner, and the city fireworks that followed gave the muscular sense of one of America’s signature cities. This seemed a superb setting for the optimum exchange of science and the engendered friendship.

We acknowledge the excellent support of the members of the Department of Radiation and Cellular Oncology including Mert Vincent, Matthew Maggio, Emily Toops, Eugene Barth, Richard Miller, and Feya Epel for help in the preparation of the meeting materials and for ensuring the smooth running of the meeting. Our ISOTT treasurer, Dr. Peter Keipert, provided financial wisdom through the preparative stages of the meeting. Members of our Local Organizing Committee, our Scientific Committee, the ISOTT Executive Board, and the session chairs and cochairs burnished the roster of presenters and disciplined our exciting sessions. Those who presented at the meeting need our particular gratitude for insight at the heart of the meeting. We thank those of our participants who submitted their work as scientific publications. We especially thank our reviewers of the submitted papers who provided wisdom and insight without which the meeting would not have been such a success and the papers which have issued in this volume so important.

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