The International Society on Oxygen Transport to Tissue (ISOTT, www.isott.info) is an interdisciplinary society comprising about 250 members worldwide. Its purpose is to further the understanding of all aspects of the processes involved in the transport of oxygen from the air to its ultimate consumption in the cells of the various organs of the body. The annual meeting brings together scientists, engineers, clinicians and mathematicians in a unique international forum for the exchange of information and knowledge, the updating of participants on latest developments and techniques, and the discussion of controversial issues within the field of oxygen transport to tissue. Founded in 1973, the society has been the leading platform for the presentation of many of the technological and conceptual developments within the field both at the meetings themselves and in the proceedings of the society. These have been published first by Plenum Publishing (1973), then by Kluwer Academic/Plenum Publishers and presently by Springer Publishing, all in the Advances In Experimental Medicine and Biology Series.

The 36th Annual ISOTT conference was held in Sapporo, Japan during August 3–7, 2008. It was the second occasion that the ISOTT meeting was held in Japan; the first one was held in the same place in 1987 organized by Professor Masaji Mochizuki. The meeting consisted of one special lecture by the Honorary President Professor Mamoru Tamura, 8 invited lectures, 7 organized sessions (31 presentations altogether), a specially planned Asians session (4 presentations), 20 general oral presentations, and 64 poster presentations. In addition, we had an opportunity to hold a satellite symposium in the same venue titled “Oxygen Transport and Medicine” (4 presentations) chaired by Professor Makoto Sue-matsu, Keio University School of Medicine. We welcomed 131 full registrants (with 15 accompanying persons) and 38 one-day-ticket holders. In addition to promoting enthusiastic in-depth discussions in the conference, at after-hours, we offered special occasions so that the participants could relax and feel ISOTT’s traditional familiar atmosphere. One example is the Summer Ski Jump demonstrations performed by Mr. Kazuyoshi Funaki, the Gold Medalist in 1998’s Winter Olympic Games in Nagano, Japan.

This volume is the fruit of Sapporo ISOTT meeting. All the manuscripts have been carefully reviewed and revised according to the reviewer’s recommendation.
I wish to thank all the reviewers for their time and effort so that the volume attains high scientific quality.

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