Editorial

Limb Preservation: Past and Present

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The International Society of Limb Salvage (ISOLS) displayed the global perspective needed to bring advances in surgery, engineering, reconstruction, biology, and clinical care to the entire international community. The 16th meeting, held in 2011 in Beijing, China, marked the 30th anniversary of the organization. Starting from humble beginnings at the Mayo Clinic in 1981, Frank Sim and Ed Chao inaugurated the Society. It has grown from a meeting of 127 participants from 23 countries to 840 participants from 44 countries, reflecting the excitement of a burgeoning field and the enthusiasm that resonates among the practitioners of musculoskeletal oncology.

The fundamental philosophy of the ISOLS is that all people in the world deserve to benefit from the advances in musculoskeletal cancer care achieved in the developed countries. Affording limb preservation to all seemed to be the goal. Specialty education and sharing of experience in this niche field was the method to achieve it. ISOLS pursued this egalitarian vision long before any other organization took up the mantra. It promulgated the use of standardized staging, functional outcome, and radiographic description systems. In what was perhaps an overly zealous effort, it even normalized the nonparametric functional outcome system of the Musculoskeletal Tumor Society and imposed a 100-point normative scale that encouraged researchers to present data as a percentage of normal. The result has been the relentless

Fig. 1 Dr. John H. Healey is shown.

improvement in survival and the reduction in amputation rates around the world. ISOLS deserves a significant amount of the credit for these extraordinary advances.

How did this happen? What contributed to its successes and failures? Any short answers to these questions inevitably will fail to capture the excitement of discovery or the satisfaction of sharing the hard-won knowledge. Major contributors to the effort are forgotten as new advances take priority. Nevertheless, it is worth reflecting on the contributions that created the organization and how these have created the foundation for what we do in modern musculoskeletal oncology. It is also worth thinking of what we still have to accomplish, taking the generalized findings to the public in the individualized medicine of the future.

The ISOLS organizers came together to share knowledge about clinical care and prosthetic reconstruction in the new era of limb preservation. The first meeting served to introduce titanium fiber-metal, among other advances. Major advances were presented in meetings in Kyoto such as the

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extracorporeal radiation and reimplantation of osseous tumors and gait analysis of periacetabular resections/reconstructions. These themes were supplemented by biological and genetic information presented in Singapore and tissue regeneration prospects in New York. We have seen how these advances are now commonplace in countries worldwide such as India. The Beijing meeting allowed Dr Sim, one of the original founders, to present an awesome display of surgical virtuosity in the resection and reconstruction of sacral tumors. Quality control strategies in these developing

countries were especially impressive. The durability of the original work that spawned ISOLS was glorious to behold. It was equally inspiring to learn of the innovative ways that the information is being disseminated.

The papers selected for this Symposium build on the hard work of our predecessors and the creative genius of multi-specialty interaction. It is a celebration of what the field of orthopaedic oncology has to offer. At the same time, it exposes the limitations of what we do and the magnitude of what still needs to be accomplished to help our tumor patients.