Preface

The *Institute for Surgical Research* of the Ludwig-Maximilians-University of Munich is celebrating the *65th Birthday of Konrad Messmer* – together with the *40th Anniversary* of founding of the Institute in the year 1962 as a small division at the University Department for Surgery in Munich. Feelings for such an occasion are necessarily ambivalent – joyful to celebrate a time point in the life of Konrad Messmer highly appropriate to remember and reflect a long period of successes and break-throughs, rendering *Surgical Research* as a grown-up independent discipline of its own right and scientific partner of surgeons and beyond. On the other side, melancholy may arise from the unrefutable awareness that an important epoch of the professional life of an outstanding personality in this field has come – at least officially – to an end attributable to the university regulations of mandatory retirement. This bureaucratic formalism notwithstanding, editors and authors are highly pleased to dedicate the *Festschrift* as a modest token of appreciation to a long-term friend, scientific partner, and academic teacher.

Among the many accomplishments Konrad Messmer's particular merit as scientist is to have consolidated surgical research as a self-confident discipline at the interface between the basic sciences and the clinic. The appointment of Messmer as chairman of the Institute for Surgical Research at the University of Munich in 1990 succeeding the charismatic Walter Brendel was a stroke of luck, as only he had all the energy, talents, and vision to continue the inspired leadership of an institute which had accumulated great international recognition, raising worldwide expectations on occasion of his takeover. In fact, Messmer succeeded from the beginning to pursue the mission of this Institute dedicated to research and development including high-level scientific training of the academic young generation, the research fellows and students of the

university hospitals and medical school, respectively on the basis of demanding research objectives. A major target of this research is the elucidation of pathological mechanisms underlying surgical and intensive care medicine disorders, but also related to a variety of other medical problems. Surgical research is, therefore, carried out at the Institute in a host of scientific collaborations with practically all surgical disciplines, not only general surgery but also neurological, cardiac, orthopaedic, or urological surgery, among others. In addition, a great number of fruitful projects are studied together with the conservative disciplines, as for example neurology, cardiology, gastroenterology, or oncology. These collaborations provide an excellent training base for research fellows of the university hospitals and for our medical students exposed to a scientific ambience as successful entrée for an academic career – not necessarily in a surgical discipline. The altruistic understanding of this function of the Institute for Surgical Research unconditionally supported by Messmer is convincingly demonstrated by the fact that approximately two of three experimental projects are conducted in cooperation with clinicians – a major portion even independently by these colleagues – notwithstanding the major logistical, financial, and personal support coming from the Institute.

Although only a fraction of articles of the *Festschrift* is written by the current staff of scientists and collaborative partners of the Institute, this issue most suitably reflects an impressive spectrum of research interests and activities, among others addressing problems of general surgery, surgical pathophysiology in particular, but also those closely related with other specialities. In this context, the pathophysiology of organ microcirculation including the brain could be mentioned, the not yet solved mechanisms of secondary brain damage from trauma and ischemia,

the immune processes underlying organ rejection in transplantation, the development of novel applications of the shock-wave technology, e.g. for genetic engineering, the intriguing role of intestinal immunology, the significance of leukocyte-endothelial interactions in the ischemia-reperfusion syndrome, the development of novel synthetic oxygen-carriers and their testing as substitute for blood transfusions, the role of NO in pulmonary hypertension, the side effects of new inhalational anaesthetics, and many others.

The social-cultural background of surgical research is underscored by the contributions from the humanities and art, the interrelationship of physicians and culture, or the cultural relationships with Andalusia. Although, these topics portrayed in the *Festschrift* appear diverse and complex, they are logically intercalated – somehow miraculously impersonated by Konrad Messmer – demonstrating par excellence the interdisciplinary nature of surgical research and its cultural ramifications.

Editors and authors are pleased to acknowledge that S. Karger, Basel made it possible to publish the *Festschrift* as a special issue of *European Surgical Research* of which Konrad Messmer is chief editor for a long time. *European Surgical Research* has developed into a format and impact which has captured its place among the visible international medical periodicals. This accomplishment of the journal certainly is a result of bridging the basic sciences with the clinic. The renommée of *European Surgical Research* can well be attributed to its chief editor being awarded with many international honours and recognitions. Among others, Messmer is Honorary Professor of the Chinese Academy of the Medical Sciences, Beijing, he has received the medal of the Academia Nacional de Ciencias, Córdoba, Argentina, and meanwhile an impressive number of honourable doctoral degrees by the Universities of Saragossa, Granada, Santiago de Compostela, Spain, and Córdoba, Argentina – demonstrating an

intriguing relationship with the Spanish speaking surgical world. As a matter of heart Messmer always was interpreting his function as a host for international collaborations with fellows and students from all over the world, a dedication recognizable from the beginning of his professional career in Munich prior to his appointment by the University of Heidelberg.

Last but not least, publication of this *Festschrift* may serve the purpose to demonstrate the vitality and blooming of surgical research as a dynamic discipline, benefiting from a continuous flow of ideas, problems, and questions from both the clinical and basic science partners, and converting those into a productive scientific output with consequences for the patient management. This is shown by the many successes and break-throughs, as for example the initiation of transplant surgery in Germany, the development of shock-wave lithotripsy to clinical maturity or the many seminal contributions enhancing our understanding of surgical and non-surgical disorders. In this context, circulatory failure and shock – Messmer's life-long research objective and interest and the powerful therapeutic procedure of small volume resuscitation can be mentioned. The *Festschrift* provides a comprehensive update for the novice in the field of surgical research as a science prepared to face up to acute medical problems and being able of their conversion into experimental hypotheses and studies with the eventual emergence of novel solutions for the patient.

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