

Macromolecular engineering of polymer and polymer/inorganic hybrid materials for application in regenerative medicine has developed into one of the most attractive and promising areas of polymer science and engineering. Studies in this field are usually interdisciplinary, and any progress requires true cooperation between polymer chemists, engineers, specialists in the area of ceramics and metal alloys, biologists, and medical practitioners. The International Conference on Biomaterials in Regenerative Medicine held 22–25 October 2006 was organized by the Scientific Centre of the Polish Academy in Vienna in cooperation with the Committee on Biotechnology of the Polish Academy of Sciences, the Polish Society for Biomaterials and the Department of Traumatology of the Medical University of Vienna. The conference was organized by the initiative of Professor Sylvester Gogolewski, who contributed greatly to its program. A wide range of subjects was covered, from the tailored

synthesis of special polymers, the fabrication of various polymer-containing materials needed for medical applications, the cells and tissues applied in regenerative medicine, and the fundamental aspects of cell–material interactions, to the specialty materials designated for bone and cartilage regeneration, for orthopedic and dental applications, for the treatment of cardiovascular problems, and for drug and gene delivery. The conference gathered nearly one hundred and twenty participants from twenty countries. Sixteen invited lectures and seventy posters were presented.

This volume consists of papers based on invited lectures and on some selected poster presentations. Editorial work was shared by Stanislaw Blazewicz (polymer/inorganic hybrid materials), Stanislaw Pielka (biological studies and medical applications), and Stanislaw Slomkowski (polymer synthesis and processing).

*Stanislaw Slomkowski*