PREFACE

This issue, Vol. 47, No. 1, of Acta Biochimica Polonica presents the texts of a number of posters, selected for short oral presentation at the 7th International Symposium on Molecular Aspects of Chemotherapy (7th IS-MAC) held in the historic city of Gdansk on the Polish Baltic coast, September 8–11, 1999.

Although serendipity and random screening continue to play a significant role in the search for new drugs, especially for lead compounds, current remarkable advances in molecular biology and genetics dominate to an ever increasing extent so-called rational approaches to drug design and development. It is now standard practice to investigate the mechanism of action of drugs, and sources of undesired side-effects, at the molecular level, with the aid of broad interdisciplinary approaches, both theoretical and experimental, to improve existing drugs and to design new ones.

It is with the foregoing in mind that the Gdansk International Symposia were first organized in 1984, with the support of the Committee on Drug Research of the Polish Academy of Sciences, under the auspices of the International Society of Chemotherapy and, presently, also the European Federation of Medicinal Chemistry and the International Union against Cancer.

Invited lectures at the 7th IS-MAC, as well as several poster sessions, covered current progress, and future perspectives, on molecular mechanisms of inhibition of cellular functions and metabolism, with emphasis on the design and mechanisms of action of chemotherapeutic agents for treatment of bacterial, neoplastic, parasitic and viral diseases. The range of disciplines represented was broad, including theoretical and experimental chemists and physicists, molecular biologists, enzymologists, tumour biologists, virologists, etc. The texts of most invited lectures, largely of a review nature, are to appear in a special issue of the international journal Pharmacology & Therapeutics.

It was with profound regret that we learned of the death, on August 24th, of one of our invited speakers, Alexander A. Krayevsky, Ph.D., D. Sc., Member of the Russian Academy of Sciences, and Head of a Laboratory at the Engelhardt Institute of Molecular Biology of the Russian Academy of Sciences. Alexander, Alex to many of us who appreciated him not only as a scientist, but also as a close friend, had earlier sent in the text of his proposed lecture, together with a covering letter mentioning that he was to be hospitalised for several days, but nonetheless expecting to attend the Symposium. Alas, this was not to be. Alex’s initial research activities were directed to the mechanism of peptide bond formation in ribosomes of eukaryotes and prokaryotes. But he will best be remembered for his extensive investigations of the past 20 years on the specificities and other properties, including the structures of the active centres, of mammalian and viral DNA polymerases and reverse transcriptases, and their application to development of antiviral agents. Alex was strongly committed to the promotion of international collaboration, reflected in his numerous publications. He was a frequent and welcome visitor to Warsaw and other scientific centres in Poland. It was most appropriate that his successor at the Engelhardt Institute, Dr. Ludmila Alexandrova, attended the Symposium to deliver Alex’s lecture, and to assist in the editing of his manuscript.
We are very much indebted to the members of the Gdansk Symposium Secretariat, and particularly to Maria Bontemps-Gracz, for their unstinting assistance in the organization of this Symposium.

Preparations are now underway for organization of the 8th IS-MAC, to be held in Gdansk in the year 2001. Proposals from prospective participants for review lectures, will be warmly welcomed and will be given due consideration by the Organizing Committee during preparation of the scientific program. Furthermore, early submission of Abstracts for posters would facilitate selection of those considered appropriate for short oral presentation.

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**We would like to thank the following for financial support of the 7th IS-MAC:**

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Technical University of Gdańsk, Gdańsk, Poland
State Committee for Scientific Research (KBN), Warszawa, Poland
Ministry of National Education, Warszawa, Poland
Institute of Biochemistry & Biophysics, Polish Academy of Sciences, Warszawa, Poland
Ingenieurbüro Becker, Prisdorf, Germany
British Technology Group, London, United Kingdom
Municipality of Gdańsk
LONZA NATA S. C., Gdańsk, Poland
Sigma-Aldrich Sp. z. o. o., Poznań, Poland
PPII ABO, Gdańsk, Poland