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FOREWARD

Understanding of basic life processes was a long-lasting aspiration of mankind. The study of the cells has started about three centuries ago. However, due to the restriction imposed by the instruments it developed slowly until 1940. After that, the course of cell research advanced at an incredible pace bringing together structural, biochemical and functional methods, that is integrated studies which uncovered the structure, chemistry and function of the cells and their components. This is cell biology.

Science is an intrinsic part of the culture. Science adds to the culture, the knowledge about the Universe, the knowledge of oneself. Maybe more than other domains of science, cell biology has a double role: comprehension of the basic processes that take place in plant and animal kingdom, including man and using these data for future practical application in medicine and in plant agriculture.

Since 1979, the field of cell biology has developed and increased yearly in our country. The Romanian Society for Cell Biology, organised under the auspices of the Institute of Cellular Biology and Pathology in 1982, brought together cell biologists from all over our country, and together we build a forum that under rather difficult conditions, managed to resist, to keep the enthusiasm up and to add data and knowledge for cell science.

The papers presented in this books demonstrate the variety of preoccupations of the Romanian cell biologists; however, within this variety, there is a common denominator, that is the attempt to understand the fundamental mechanisms by which cells (plant or animal) exist, adapt, respond or fail to respond to common or adverse factors of the external medium.

A word of esteem and appreciation is due to Prof. Aurel Ardelean the President of the University “Vasile Goldiş” of Arad and to Prof. Constantin Crăciun from the University “Babeş-Bolyai” of Cluj, for their undertaking to put together, for the third time, the papers presented at the Annual Scientific Session of the Romanian National Society for Cell Biology; this time the session was organised by the Society branch of Timişoara, in June 1998.

The same high regard is due to all the authors that contributed to this book. The effort as well as the quality and the number of papers published here, shows that the scientists that belong to the Romanian Society for Cell Biology have the need and the desire to share their findings, results and knowledge with their colleagues in the same or other fields. This energy devoted to science the talent and the motivation of researchers, brings confidence and hope that cell biology and molecular biology will continue to develop and grow in our institutions, will become part of the universal scientific knowledge, and the data will be of use in agriculture, biotechnology and medicine.

Maya Simionescu
Member of the Romanian Academy
PREFACE

The present volume contains original papers presented at the 16th Annual Meeting of the Romanian Society for Cell Biology (RSCB) held on June 8-10, 1998 at Buziaș, organized by Society branch of Timișoara, Romania. It is for the third time that such a volume is published by our society.

Due to the diversity of scientific preoccupations demonstrated by the participants, the volume consists of 8 chapters. The first one includes papers of general interest, the last groups the general cell biology, while the rest of the chapters contain papers dealing with similar or related problems, although their degree of homogeneity is rather variable.

The volume reflects in general the type of scientific investigations performed by the members of our Society in the field of cellular and molecular biology, although a few important topics developed by members of certain branches, such as biomembranes, experimental embryology, etc. are missing. Thus, the book provides contributions for reference purposes at the professional level, and will be of interest to biologists, physicians, biochemists, biophysicists, agricultural engineers, etc. It could also be of help to teachers and students at both the undergraduate and graduate levels.

Editors

Arad

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Aurel Ardelean