

Preface

The plant cells, if not all, are generally believed to have totipotency which enables single cells to form mature plants when provided an optimal culture condition. On the other hand, in case of animal cells, the totipotency had been questioned as part of the genetic elements in the cells other than fertilized eggs or those derived from an early stage of embryo were suspected to have irreversible modification. Wilmut et al., however, recently reported that they succeeded in producing a cloned animal by fusing a nucleus derived from a cloned cell of mammary gland with an enucleated egg. This result revealed that, at least some of the somatic cells retain whole genetic informations necessary to support the production of an adult animal. This fact encourages us because animal cells have been shown to be able to express any of their native functions if supplied suitable environments. In this respect, animal cell technology is a powerful field of discipline which enables establishment and modification of cloned cells with specific functions, application of the modulated cells to gene therapy, cultivation of the cells at an industrial scale to produce biologically active materials, reconstitution of an artificial tissues and organs and even production of cloned animals.

At the Ninth Annual Meeting of Japanese Association for Animal Cell Technology (JAACT) which was held in Yokohama from 1st through 4th of September, 1996, we welcomed more than 230 participants including 45 from abroad and accepted 133 presentations. In the present proceedings, the reports presented at the Meeting have been compiled. The papers will show the recent progress in the field of animal cell technology in the application as well as with basic aspects. Some of the presentations including the plenary lecture given by Dr. Edgar G. Engleman will be published in *Cytotechnology* specially issued for JAACT96 in the more extended form. Those papers are indicated by asterisks in the table of contents.

The editors express their sincere thanks to all participants at the Meeting, to the organizers of the Symposium sessions, to the members of the organizing committee and program committee and the graduate and undergraduate students of Tokyo Institute of Technology for their dedication in assuring the success of the Meeting. We also appreciate Japanese Bioindustry Association, City of Yokohama and Nestle Science Promotion Foundation for their financial support of the Meeting.

The Editors