Preface

The DNA tumor viruses have long served as model systems for the study of eukaryotic gene expression, DNA replication, and transformation. The enormous growth of this field in the last several years has led to the occurrence of specialized meetings covering the work on one or two viruses. However, the Third Cold Spring Harbor Meeting on Cancer Cells took a broader view, bringing together investigators who presented their latest findings in a variety of areas. The studies discussed at the meeting and collected in this volume encompass the molecular biology and biochemistry of SV40, polyomavirus, adenoviruses, papillomaviruses, herpes simplex virus, and Epstein-Barr virus.

To enhance this volume of *Cancer Cells*, several leading investigators were asked to write introductory articles covering the history, current developments, and possible future of research into these DNA tumor viruses. The authors of the introductions were charged to (1) provide personal, anecdotal histories of their fields; (2) update the 1980 edition of *DNA Tumor Viruses* edited by John Tooze; and (3) chart the future of research in their areas. We thank these colleagues not only for accepting this challenge, but also for the extra effort required to write the resulting insightful overviews.

A great deal of progress is reported herein in the development of in vitro systems that are now being used to dissect crucial processes such as DNA replication; RNA transcription and the interaction of proteins with promoter and enhancer elements; RNA processing, transcription termination, and poly(A) addition; and control of translation. The roles of viral *trans*-activating regulatory proteins such as SV40 T antigen, adenovirus E1A proteins, herpes virus immediate early proteins, and the bovine papillomavirus E2 protein are emphasized. These proteins affect the transcriptional activity of viral and in some cases cellular genes and, at least for SV40 and adenoviruses, are also transforming proteins.

During the Cancer Cells Meeting the new Sambrook Laboratory, which adjoins James Laboratory, was dedicated. This laboratory is named for Joe Sambrook, who over the years had directed much of the research on DNA tumor viruses at Cold Spring Harbor. The dedicatory remarks were given by Jim Watson; Mike Botchan provided remembrances of life in James Lab during Joe's tenure; and Renato Dulbecco discussed the future of molecular biology, in particular the now possible but still daunting task of sequencing the human genome. The meeting also served as a reunion for many of the scientists who had worked at Cold Spring Harbor and returned to present their latest findings. Appropriately, the occasion marked the end of Joe's productive term as Assistant Director of Research at Cold Spring Harbor; he has now taken up the chairmanship of the Biochemistry Department at the University of Texas Health Sciences Center at Dallas.

Our thanks for helping to organize and run the meeting goes, as usual, to numerous Cold Spring Harbor staff members. In particular, the Meetings Office under the direction of Gladys Kist, who has since retired, performed to its consistently high standard; the James Lab secretary, Marilyn Goodwin, was indispensable in helping the organizers coordinate the plans of all the scientists attending the meeting; Herb Parsons and his co-workers once again orchestrated the audiovisuals with care and precision; Dave Micklos and Susan Cooper organized the dedication of the Sambrook Laboratory; and LIBA's continued generosity to the Laboratory made the building of the Sambrook addition possible.

We also thank the Publications Department, in particular, Douglas Owen and Joan Ebert, for their persistence in bringing *Cancer Cells 4* to press. We are also grateful to Emily Harste for the stunning design of the cover.

The Editors