Program

Conference Report.
William H. Fishman and Stewart Sell ........................................... 4205

Model Systems for the Study of Oncodevelopmental Gene Expression

Murine Teratocarcinoma

Chairperson: Cole Manes

Murine Teratocarcinoma and the Developmental Approach to Neoplasia.
Cole Manes ................................................................. 4206

Differentiation of Early Mouse Embryonic and Teratocarcinoma Cells in Vitro: Plasminogen Activator Production.
Michael I. Sherman, Sidney Strickland, and E. Reich ......................... 4208

In Vitro Differentiation of Teratomas and the Distribution of Creatine Phosphokinase and Plasminogen Activator in Teratocarcinoma-derived Cells.

Cell Lines Derived from Teratocarcinomas.
J. F. Nicolas, P. Ayner, J. Gaillard, J. L. Guenet, H. Jakob, and F. Jacob ......... 4224

α-Fetoprotein Synthesis in Tissue Culture of Human Testicular Tumors and an Examination of Experimental Yolk Sac Tumors in the Rat.
Shigeo Sakashita, Hidematsu Hirai, Shinzo Nishi, Kyoji Nakamura, and Ichiro Tsuji ........ 4232

Cole Manes ................................................................. 4238

Neoplastic Transformation

Chairperson: Hidematsu Hirai

Expression of an Oncodevelopmental Gene Product (α-Fetoprotein) during Fetal Development and Adult Oncogenesis.
Stewart Sell, Frederick F. Becker, Hyam L. Leffert, and Hiroyuki Watabe ........ 4239

Present Paradoxes in the Environmental Control of Hepatic Proliferation.
H. L. Leffert, K. S. Koch, and B. Rubalcava .................................... 4250

Regulatory Controls of Oncotrophoblast Proteins and Developmental Alkaline Phosphatases in Cancer Cells.
William H. Fishman and Robert M. Singer ........................................ 4256

Evidence for Altered Gene Regulation in HeLa Cells Returned to Culture after Growing in Immunosuppressed Rats.
Robert M. Singer ............................................................ 4262

Alkaline Phosphatase Isoenzymes in Intestinal Metaplasia and Carcinoma of the Stomach.
Kazumasa Miki, Yoshitsugu Oda, Hiroshi Suzuki, Shiro Iino, and Hirohumi Niwa ......... 4266

Cancer, Retrodifferentiation, and the Myth of Faust.
José Uriel ................................................................. 4269

Hidematsu Hirai ............................................................ 4276

Molecular Mechanisms of Gene Regulation

Session 1

Chairperson: Arnold J. Levine

A Model for the Control of Transcription during Development.
George Brawerman .......................................................... 4278

Genes Responsible for Transformation by Avian RNA Tumor Viruses.
John M. Coffin ............................................................. 4282

Tumor Viruses and Cellular Gene Expression.
Thomas L. Benjamin .......................................................... 4289

A General Concept for Molecular Biology of Cancer.
Harris Busch ................................................................. 4291

Summation: Molecular Mechanisms of Gene Regulation—Session 1.
Arnold J. Levine ............................................................ 4295
Session 2
Chairperson: Harris Busch

The Role of Nuclei and Nucleoli in the Control of Cell Proliferation.
Renato Baserga, Cheng-Hsiung Huang, Mara Rossini, Helena Chang, and Pen-Ming L. Ming 4297

Homochromatographic and Immunological Analysis of Controls of Nucleolar Gene Function.
Yong C. Choi, N. Raghuveera Ballal, Rose K. Busch, and Harris Busch 4301

Role of Nonhistone Chromosomal Proteins in the Regulation of Histone Gene Expression.

Summation: Molecular Mechanisms of Gene Regulation—Session 2.
Harris Busch 4319

Session 3
Chairperson: Sidney Weinhouse

A Mechanism of Estrogen Action on Gene Expression at the Level of Translation.
Opendra K. Sharma and Ernest Borek 4320

Summation: Molecular Mechanisms of Gene Regulation—Session 3.
Sidney Weinhouse 4330