

CONTENTS

SCIENTIFIC DEVELOPMENTS AND PRACTICAL APPLICATIONS

Replacing nature as an innovator L. Cavalli-Sforza	3
The isolation of an <i>E. coli</i> plasmid determinant that encodes for the production of a heat-labile enterotoxin W.S. Dallas, G. Dougan and S. Falkow	9
An improved method for transformation of <i>Escherichia coli</i> with ColE1 derived plasmids S.R. Kushner	17
<i>Bacillus subtilis</i> as a host for DNA cloning S.D. Ehrlich, S. Jupp, B. Niaudet and A. Goze	25
Characterization and use as vector of a bifunctional <i>B. subtilis</i> plasmid V. Sgaramella, U. Bertazzoni, S. Cremaschi, G. Grandi, C. Morandi, M. Mottes, M.L. Nolli and L.A. Zonta-Sgaramella	33
Replication and gene expression of extrachromosomal replicons in unnatural bacterial hosts W. Goebel, J. Kreft, K. Bernhard, H. Schrempf and G. Weidinger	47
Molecular cloning vectors: Derivatives of plasmid pBR322 F. Bolivar	59
Site-directed mutagenesis as a tool in genetics: Application to RNA and DNA genomes C. Weissmann, H. Weber, T. Taniguchi, W. Mueller and F. Meyer	65
Structure and organisation of the split ovalbumin gene R. Breathnach, J.L. Mandel, P. Gerlinger, A. Krust, M. Le Meur, P. Humphries, M. Cochet, F. Gannon and P. Chambon	77
Cloning of extensive portions of the ovalbumin gene of chicken F. Perrin, A. Garapin, B. Cami, J.-P. Le Pennec, A. Royal, W. Roskam and P. Kourilsky	89
Molecular organization and cloning of the ovalbumin gene A. Dugaiczyk, S. L.C. Woo, M.-J. Tsai, E.C. Lai, M.L. Mace, Jr. and B.W. O'Malley	99
Some properties of the major components of the mouse genome G. Cuny, G. Macaya, M. Meunier-Rotival, P. Soriano and G. Bernardi	109
Cloning and analysis of rDNA from higher eukaryotes W. McClements, S. Tighlman, R. Crouch and A. Skalka	117
Organisation and sequence in cloned 5S RNA genes from <i>Drosophila melanogaster</i> V. Pirrotta and C. Tschudi	127
Split chloroplast ribosomal RNA genes in <i>Chlamydomonas reinhardtii</i> J.-D. Rochaix and P. Malnoe	135

Cloning of the regulatory region of the histidine operon of <i>Escherichia coli</i> K12 in plasmid pBR313 C.B. Bruni, R. Di Lauro, P.P. Di Nocera, M.S. Carlomagno, R. Frunzio, A. M. Musti and F. Blasi	143
Organization and structure of immunoglobulin genes (Abstract) S. Tonegawa	151
The study of enzyme variation; A lesson in evolutionary genetic engineering H.E. Aebi and S.R. Wyss	153
Yeast as a host for hybrid DNA G.R. Fink, J.B. Hicks and A. Hinnen	163
Cloning and amplification of DNA sequences encoding a trimethoprim - resistant dihydrofolate reductase gene M. Fling, L.P. Elwell and J.M. Inamine	173
Cloning of the <i>Klebsiella</i> nitrogen fixation (nif) genes F. Cannon	181
<i>Agrobacterium tumefaciens</i> plasmids: Potential vectors for genetic engineering of plants A. Rörsch and R.A. Schilperoort	189
Extrachromosomal DNA in phytopathogenic fungi G. Martini, G. Grimaldi and J. Guardiola	197
THE VIEW OF INDUSTRY	
Genetic engineering: A key to innovation in industrial R & D J. Boldingh	203
The potential of genetic engineering technologies in the production of industrially important enzymes R.J. Erickson	209
Problems and potential of industrial recombinant DNA research I.S. Johnson and J. Paul Burnett, Jr.	217
Expectations and priorities of pharmaceutical industry M. Soria and L. Zeller	227
INTERNATIONAL COOPERATION	
Training and containment E.S. Anderson	237
Safety measures: Codes of practice V.R. Oviatt	245
Dangers of legislative and regulatory approaches concerning the hypothetical risks of the recombinant DNA technique W. Szybalski	253
The role of ICSU in international cooperation on genetic engineering (Abstract) W.J. Whelan	277

Harmonizing guidelines: Theory and practice J. Tooze	279
The NIH guidelines for research involving recombinant DNA molecules B. Talbot	287
Some notes about the work of the British Genetic Manipulation Advisory Group during its first year of life M. Richmond	289
The Commission of the European Communities and the activity on genetic manipulations A. Falaschi	295
Author index	299