



13th FEBS MEETING, JERUSALEM, 24-29 AUGUST 1980

The Israel Biochemical Society extends to you a warm invitation to attend the 13th FEBS Meeting, to be held at the Binyanei Ha'ooma (Convention Center) and the adjoining Jerusalem Hilton Hotel. The program, outlined below, will include symposia and colloquia, as well as free communications to be presented as posters.

In addition to the stimulating scientific program, the organizers believe that they can promise you an exciting visit in one of the world's great cities.

The following information is taken from the Second Announcement. In the Symposia and Colloquia sections, the names are those of the Organizers and of the speakers in each session.

SCIENTIFIC PROGRAMME

Plenary Sessions

Opening Session. A plenary address will be given by D. Baltimore, on "Leukemia and Leukemia Viruses".

Closing Session. The 11th Sir Hans Krebs Lecture will be given by S. Brenner, on "Molecular Genetics of Higher Organisms".

SYMPOSIA

S-1. Structure and Synthesis of Biomembranes

I. Ohad, Israel; L. L. M. Van Deenen, The Netherlands

S-1a: Intrinsic protein-lipid interactions in biomembranes (*D. Chapman*); Disposition and mobility of Mycoplasma membrane components (*S. Razin*); Topology and dynamics of phospholipids in membranes (*L. L. M. Van Deenen*). *S-1b*: Assembly of the Semliki Forest virus membrane (*K. Simons*); Structure and biosynthesis of membranes in photosynthetic bacteria (*D. Drews*); Assembly of photosynthetic membranes in eukaryotes (*I. Ohad*). *S-1c*: (*D. Sabatini*); How mitochondria import proteins from the cytoplasm (*G. Schatz*); The positioning of sucrose-isomaltase in the intestinal brush-border membrane: biosynthetic implications (*G. Semenza*); Protein translocation through biological membranes (*A. Waksman*).

S-2. Cell Receptors and Recognition Sites

Z. Selinger, Israel; E. Helmreich, GFR

S-2a: Chemical instruments in the study of cAMP and ATP sites of the adenylate cyclase system (*E. S. Severin*); The diverse roles of GTP-regulatory proteins in transmembrane signalling (*M. Rodbell*); Determining step in the regulatory GTPase cycle of rat pancreatic adenylate cyclase (*J. Christophe*); The role of GTP in regulation of adenylate cyclase activity (*Z. Selinger*). *S-2b*: Effects of α -adrenergic and cholinergic agonists on cAMP and cGMP formation (*G. Schultz*); The α -adrenergic receptor from rat liver (*J. Hanoune*); Chemical probing of the α -adrenergic receptor (*D. Atlas*). *S-2c*: Peptide receptors in cell function and differentiation (*G. Rosselin*); Receptors and the control of adenylate cyclase activity in intact BHK cells (*G. A. Robison*); Mitogen receptors and signaling mechanisms in lymphocyte plasma membranes (*J. C. Metcalfe*).

S-3. Gene Structure

Y. Aloni, Israel; H. Zachau, GFR

S-3a, Chromatin - Structure and Superstructure: Nucleosome structure and superstructure in chromatin (*A. Klug*); Probing nucleosome structure (*G. Felsenfeld*); (*H. Zachau*). *S-3b*, Organization and Rearrangement of Genetic Material: Transposable DNA-elements in prokaryotes and eukaryotes (*P. Starlinger*); DNA sequences involved in chromosome organization and rearrangements of genetic material (*G. P. Georgiev*); The role of DNA methylation in eukaryotic cells (*H. Cedar*); SV-40: a model system for studying gene expression and cell transformation (*W. Fiers*). *S-3c*, Structure and Expression of Eukaryotic Genes: Structure and evolution of several mammalian polypeptide hormone genes (*H. M. Goodman*); Structure and expression of some chicken genes (*P. Chambon*); Eukaryotic promoters (*M. L. Birnstiel*). *S-3d*, Mechanisms of Viral and Eukaryotic Gene Control: The variety of mechanisms for eukaryotic gene control (*J. E. Darnell, jr*); Factors involved in the accurate transcription of purified eukaryotic genes by RNA polymerases II and III (*R. Roeder*); Transcription, splicing, attenuation and circularization of linear DNA: mechanisms regulating gene expression (*Y. Aloni*).

S-4. Biochemical Aspects of Immunology

R. Arnon, Israel; N. Jerne, Switzerland

S-4a: Crystallographic studies of immunoglobulin fragments (*D. C. Phillips*); Dynamic aspects of antibody structure and reactivity (*P. Zavodszky*); Antibodies and somatic cell genetics (*C. Milstein*). *S-4b*: Cellular and molecular requirements of T-B lymphocyte collaboration (*F. Melchers*); Antigen specific products of lymphoid cells regulated by immune response genes (*E. Mozes*); Antigen receptors on lymphocytes: their role in cell communication (*K. Eichmann*). *S-4c*: The organization and reorganization of antibody genes (*P. Leder*); Enumeration and organization of immunoglobulin genes in rat and mouse (*I. Schechter*). *S-4d*: Complete primary structure of a human histocompatibility antigen HLA-B7: its evolutionary and functional implications (*J. L. Strominger*); The genetics and biology of the HLA system (*J. J. Van Rood*); Biochemical and functional features of antigen-specific receptors on T lymphocytes (*H. Wigzell*).

S-5. Bioenergetics

M. Avron, Israel; L. Ernster, Sweden

S-5a, Mitochondrial Bioenergetics: Current problems of mitochondrial energy transduction (*L. Ernster*); The phenomenological stoichiometries of the ATPase and of the redox proton pumps (*G. F. Azzone*). *S-5b*, Mitochondrial Bioenergetics: The electron pathway in the mitochondrial chain (*E. C. Slater*); Structure and function of cytochrome

c oxidase (*R.Capaldi*); The proton pump of cytochrome c oxidase (*M.Wikström*). S-5c, Mitochondrial Bioenergetics: Biogenesis and structure of the ATPase proteolipid (*W. Sebald*); The study of F₁ and BF₁-ATPase subunits by chemical modifications (*P.V.Vignais*); The role of the ATPase inhibitor protein in the control of oxidative phosphorylation (*D.H.Harris*). S-5d, Chloroplast Bioenergetics: Following the path of protons in green plant photophosphorylation (*W.Junge*); Formation and hydrolysis of ATP after single turnover light flashes: implications for the mechanism of photosynthetic energy coupling (*M.Baltscheffsky*); ATP synthesis by a purified photosynthetic proton translocating ATPase reconstituted into phospholipid vesicles (*Z.Gromet-Elhanan*). S-5e, Chloroplast Bioenergetics: Structure, function and biogenesis of proton ATPase (*N.Nelson*); Control of photosynthetic phenomena by the electrical diffuse layer at the surface of the thylakoid membrane (*J.Barber*); Structure, function and reconstitution of the chloroplast ATPase complex (*N.Shavit*).

S-6. Developmental Neurobiology

U.Z.Littauer, Israel; J.P.Changeux, France

S-6a: Regulation of synapse formation in vertebrate neuromuscular junction (*J.-P.Changeux*); The role of activity in the development of neuromuscular connections (*G.Vrbova*); Developmental aspects of AChR-channel function in the mammalian endplate (*B.Sakmann*). S-6b: Regulation of synapse formation (*M.Nixenberger*); Gap junctional communication in developmental neurobiology (*N.Gilula*); Development of cholinergic receptors in brain and their modulation in vivo (*Y.Dudai*). S-6c: Ontogeny of muscarinic receptors in mouse brain (*M.Sokolovsky*); Nerve growth factors: their role for survival and differentiation of neurons during ontogenesis (*H.Thoenen*). S-6d: Control of tubulin expression during brain and neuroblastoma cell development (*U.Z.Littauer*); Cell specific expression of cytoskeletal proteins; actin and 100 Å proteins (*K.Weber*); Studies on gene expression in developing murine neuroblastoma (*F.Gros*). S-6e: Some aspects of the development of the cerebellum (*R.Balasz*); Intracerebral neural transplants as model systems for the study of development and regeneration in the mammalian CNS (*A.Björklund*); Biochemical correlates in developing cerebral cells in culture (*E.Yavin*).

COLLOQUIA

C-1. Structure and Function of Proteins

I.Pecht, Israel

C-1a: Conformational flexibility and rigidity and its functional significance in several protein molecules (*R.Huber*); Stability of protein structure (*P.L.Privalov*); Correlations between stability and internal flexibility of globular proteins (*K.Wüthrich*); Electrostatic forces and protein conformation: an experimental approach (*A.S.Schejter*). C-1b: Structure and function of metalloproteins as studied by intrinsic and extrinsic spectroscopic probes (*G.Rotilio*); Magnetic and optical spectroscopy of metal ions in the active sites of enzymes (*G.Navon*); Fast reaction studies with multifunctional enzymes (*I.Kirschner*). C-1c: Enzyme-editing mechanisms in DNA replication and protein synthesis (*A.R.Fersht*); Allosteric transitions in glycogen phosphorylation (*H.Buc*).

C-2. Bioregulation of Enzymes

S.Shaltiel, Israel

C-2a: Regulation of carbohydrate transport in *E.coli* (*H.L.Kornberg*); Cascade control of glutamine synthetase activity in permeabilized *E.coli* cells (*E.R.Stadtman*); Multimodulation of enzyme activity (*A.Solis*). C-2b: cAMP-dependent protein kinase: structure, function and bioregulation (*S.Shaltiel*); The role of protein phosphorylation in the coordinated control of glycogen metabolism and fatty acid synthesis (*P.Cohen*); The structure of phosphorylase provides the molecular basis for the control of glycogen metabolism (*N.Madsen*). C-2c: (*H.Holzer*); The regulation of the activity and of the synthesis of the enzymes of the threonine operon in *E.coli* (*G.N.Cohen*); Molecular basis for specificity of nucleases (*M.Karpeisky*).

C-3. Interferon

M.Revel, Israel

C-3a: Generation of distinct molecular species of interferons (*J.Vilcek*); Chemical characterization of interferon (*M.Rubinstein*); Biological activities of electrophoretically pure mouse interferon (*E.De Mayer*); Biochemical and biological properties of purified murine immune T-interferon (*E.Falcoff*). C-3b: Interferon and the immune system (*I.Gresser*); Preparation of human leukocyte interferon for clinical use (*K.Cantell*); Human interferon as a therapeutic agent (*T.C.Merigan*). C-3c: The action of interferon on retroviruses (*A.Billiau*); The 2-5A system in interferon-treated and control cells (*I.Kerr*); The molecular basis of interferon's antiviral and anticellular effects (*M.Revel*).

C-4. Complex Carbohydrates

H.M.Flowers, Israel; R.C.Hughes, UK

C-4a: The importance of the primary structure of glycoproteins for their metabolism and function (*J.Montreuil*); The poly(glycosyl) chains of human erythrocyte glycoproteins (*T.Krusius*); Complex glycoconjugates of the red cell membrane and the chemical basis of its specificity (*J.Kościelak*); Structure-function relationships for heparin (*U.Lindahl*). C-4b: The metabolic role of sialic acid modification (*R.Schauer*); The role of dolichyl phosphate in protein glycosylation (*F.W.Hemming*); Inhibition of protein glycosylation and interference with the synthesis of dolichyl(pyro)phosphoryl linked saccharides (*R.T.Schwarz*). C-4c: Transport of lysosomal enzymes by cultured cells (*K.Von Figura*); A study of cell surface glycoconjugates with N-acetylneuraminic acid-binding lectins: wheat germ agglutinin and limulin (*M.Monsigny*); Lymphocyte lectins and lectin receptors (*N.Sharon*); Complex carbohydrates involved in cell adhesion (*R.C.Hughes*).

C-5. Biochemistry of Aging

D.Gershon, Israel

C-5a: Investigation of the mechanism of age-dependent lipid peroxidation and changes in biological membrane properties (*D.Hegner*); Further developments in the membrane hypothesis of aging (*I.Zs.-Nagy*); Lysosomes and cellular aging (*D.L.Knook*). C-5b: Age-related biochemical changes in neurons of the mammalian CNS (*M.Ermini*). Posttranslational modifications of some enzymes (*J.C.Dreyfus*); The cellular aging of fibroblasts is a biochemical differentiation process of the fibroblast stem cell system (*K.Bayreuther*).

C-6. *Plasma Lipoproteins and Lipolytic Enzymes*

Y.Stein, Israel

C-6a: Plasma Lipoproteins: Chemical studies on the structure of high density lipoproteins (W.Stoffel); Lipoproteins in pathological states (D.Seidel); The metabolic effect of lipid lowering drugs (R.I.Levy). C-6b: Plasma Lipoproteins: Interactions between apolipoproteins and lipids (J.Glomset); Cellular interactions with lipoproteins (O.Stein); Round Table Discussion. C-6c: Lipolytic Enzymes: Lipoprotein lipase: what are the rate-limiting factors for its action on lipoproteins? (T.Olivecrona); Lipoproteins in LCAT deficiency (K.Norum); Interconversion of lipoproteins (S.Eisenberg).

C-7. *Oncogenic Viruses*

Y.Becker, Israel

C-7a: The transforming genes in avian defective leukemia viruses (D.Stehelin); Biological and chemical characterization of viral and cellular oncogenes (J.-L.Darlix); (R.Weinberg). C-7b: Molecular biology of enzootic bovine leukosis (A.Burny); Evolution of avian oncoviruses (J.M.Coffin); SV-40 DNA recombination events (E.Winocur). C-7c: The arrangement of integrated adenovirus DNA in transformed and infected cells (W.Doerfler); Molecular organization of herpes viruses (J.B.Clements); Intracellular forms of Epstein-Barr virus DNA (T.Lindahl); The Epstein-Barr virus and related systems (G.Klein).

C-8. *Genetic Engineering*

I.Hertman, Israel

C-8a: The expression of a cloned rabbit chromosomal β -globulin gene in mouse L cells and yeast (C.Weissmann); The structure and expression of hemoglobin genes (R.A.Flavell); Structure and expression of cloned eukaryotic genes (Ph.Kourilsky). C-8b: (H.W.Boyer); Cloning of Drosophila genes active during embryogenesis (V.Pirrotta); Cloning of the histidine operon: structure and regulation (F.Biasi); Maintenance compatibility and encapsidation of a mini-plasmid derived from prophage P-1 (I.Hertman). C-8c: Molecular and genetic manipulation of Klebsiella nif system (F.C.Cannon); Cloning with cosmids in E.coli and yeast (B.Hohn); Molecular theory of protein-nucleic acid recognition (R.Rein).

C-9. *Cell Fusion*

A.Loyter, Israel

C-9a: Pharmacological control of membrane fusion (A.Bruni); Effect of polyunsaturated fatty acids on fusing viruses (A.Kohn); On the mechanism of virus-induced cell fusion (R.Rott). C-9b: Incorporation of integral membrane proteins into cell membranes (G.Eytan); Introduction of foreign phospholipid molecules into the plasma membranes of mammalian cells via vesicle-cell fusion and exchange (R.E.Pagano); The role of paramyxovirus glycoproteins in the interactions between viral and cell membranes (A.Scheid). C-9c: Gene expression in normal and transformed cells (J.E.Celis); Genetic control of transformation and malignancy in somatic cell hybrids (K.Willecke); Interaction of cells in vitro and in vivo with targeted liposomes (G.Gregoriadis).

C-10. *Growth and Reproduction*

A.M.Kaye, Israel

C-10a: Regulation of the cell cycle (J.A.Smith); Studies on nerve growth factor mediated arrest of division and neurite growth in target cells (P.Calisano); Possible role for receptor motion in the mechanism of action of insulin and epidermal growth factor (J.Schlessinger); Gene amplification - selection and growth control (R.T.Schimke). C-10b: The role of the polyamines in cell proliferation (O.Heby); Androgens as regulators of cell growth and cell division (W.I.P.Mainwaring); Acquisition and loss of androgen responsiveness in the embryonic mammary gland: role of tissue interaction (K.Kratochwil). C-10c: Controls of meiotic division in *Xenopus laevis* oocyte: steroids, membrane, cAMP and receptors (E.Baulieu); Neuroendocrine control of reproduction (Y.Koch); Human growth hormone: recent chemical and biological studies (C.H.Li); The interplay of chromatin replicative processes and hormone action in cell differentiation (G.C.Mueller).

C-11. *Biochemistry in Agriculture*

Y.Birk, Israel

C-11a: Agricultural research and agriculture (Y.Vaadia); Effect of nitrogen on the formation of pyrocatechin-humic acid and the nitrogen linkage characteristics of this acid (H.Özbek); Steroid hormones and plant growth and development (J.Guens); Protein-flavonoid relations as a biochemical criterion indicative of physiological and induced shifts in plant living activities (U.Margna). C-11b: Proteinase inhibitors in natural plant protection (C.A.Ryan); Protein alpha-amylase inhibitors from cereal and other plant species (V.Silano); Regulation of locust vitellogenesis: implications for control of insect reproduction (S.W.Applebaum); An antiviral factor from virus infected plants (I.Sela). C-11c: The biosynthesis of nutritionally important amino acids in plants (P.J.Lea); Seeds storage proteins: proteosynthesis and deposition into protein bodies during seed maturation (J.C.Pernollet); Potential applications of grain protein biochemistry in Brazilian agriculture (E.Derbyshire); Plant polyphenoloxidases and their importance in foods (A.M.Mayer).

C-12. *Nucleic Acids - Protein Interactions*

A.Hochberg, Israel

C-12a: Conformation aspects of substrate properties of nucleosides and nucleotides towards various enzymes (D.Shugar); Nucleic acid structure in complex assemblies (C.R.Cantor); Dynamic aspects of aminoacyl ligase-tRNA interaction - some essentials for the recognition process (F.Von Der Haar); Tryptophanyl tRNA synthetase-tRNA^{Trp} interactions (L.L.Kisselev). C-12b: Structure and function of ribosomes (H.G.Wittmann); Structure and function of rRNA (A.Zamir); 5S and 5.8S RNA-protein complexes; a model system for nucleic acid-protein interaction studies (V.A.Erdmann); New results in the study of ribosomal RNA-protein interaction (J.P.Ebel). C-12c: The role of soluble protein factors in the initiation of protein synthesis (M.Grunberg-Manago); The elongation factor EF-Tu. Effects of alterations in the tufA and tufB genes (L.Bosch); Analysis of hamster lens cells transformed by SV-40 (H.Bloemendal).

POSTER SESSIONS

Poster sessions will be organized in accordance with the topics of the symposia and colloquia described above, with additional sessions for work unrelated to these topics. The *imperative deadline* for receipt of abstracts is *31 March 1980*.

REGISTRATION AND ACCOMMODATION

Registration fees (DM)

	By 14.5.1980	From 15.5.1980
Participant	225	275
Young Scientist (under age 30)	125	150
Accompanying Person	50	50

The fee covers: Participation in all Sessions / Receptions / Social Events / Accompanying Persons Special Program.

Fees, payable to "FEBS Israel 1980", should be sent to KENES, P.O.B. 983, Jerusalem, Israel.

Accommodation will be organized through PELTOURS Ltd, P.O.Box 394, Tel Aviv, Israel, the official travel agents to the Meeting, and will be allotted on a first come first served basis. Bookings should be made through Peltours or their agents. Accommodation in hostels or student dormitories must be fully paid by *31 March 1980*.

CORRESPONDENCE

The Second Announcement, with registration, accommodation and abstract forms, is available from the Meeting Secretariat:

KENES
Clal Center, P.O.B. 983
97 Jaffa St., Jerusalem, Israel
Telephone: (02) 222490 - 228553

SATELLITE MEETINGS

Several satellite meetings complementary to the program of the 13th FEBS Meeting are planned; for further information and details of registration, please contact the individual organizers named below:

Biochemical Approaches to Organic Synthesis

August 20-21, 1980, Jerusalem, Israel

Participation limited to 120. Dr Leon Goldstein, Department of Biochemistry, Tel-Aviv University, Tel Aviv, Israel.

The Biochemistry of Parasites

August 20-22, 1980, Jerusalem, Israel

Dr Hadar Isseroff, Department of Biology, State University College at Buffalo, Buffalo, N.Y. 14222, USA; Dr Gerald M. Slutsky, Sanford F. Kuvin Center for the Study of Infectious and Tropical Diseases, Hadassah Medical School, The Hebrew University, Ein Karem, Jerusalem, Israel.

Connective Tissue Matrix Macromolecules

August 20-22, 1980, Jerusalem, Israel

Dr S. Shoshan, Connective Tissue Research Lab., P.O.Box 1172, Jerusalem, Israel.

Control Mechanisms in Photosynthesis

August 31 - September 4, 1980, Rehovot, Israel

Dr M. Avron, Department of Biochemistry, Weizmann Institute of Science, Rehovot, Israel.

International Symposium on Polyamines in Normal and Neoplastic Growth

September 8-9, 1980, Rimini, Italy

Professor C.M. Caldarera, Istituto di Chimica Biologica, Università di Bologna, via Imerio 48, 40126 Bologna, Italy.

Arrangements for additional satellite meetings may be made through the Secretary of the 13th FEBS Meeting: Dr U. Bachrach, Dept. of Molecular Biology, Hebrew University - Hadassah Medical School, P.O.Box 1172, Jerusalem, Israel.

