

Table of Contents

The Human Red Cell Acid Phosphatase Is a Phosphotyrosine Protein Phosphatase Which Dephosphorylates the Membrane Protein Band 3	<i>P. Boivin and C. Galand</i>	557
Muscle Proteins Related to Microtubule-Associated Protein-2 Are Substrates for an Insulin-Stimulatable Kinase	<i>Thomas Wayne Sturgill and L. Bryan Ray</i>	565
Human Lung Tumor Sensitivity to Difluoromethylornithine as Related to Ornithine Decarboxylase Messenger RNA Levels	<i>Robert A. Casero, Jr., Stephen B. Baylin, Barry D. Nelkin, and Gordon D. Luk</i>	572
A Larval-Specific Lipoprotein: Purification and Characterization of a Blue Chromoprotein from <i>Heliothis zea</i>	<i>Norbert H. Haunerland and William S. Bowers</i>	580
Stimulus-Dependent Mobilization of Protein Kinase C	<i>Jun Nishihira, Linda C. McPhail, and Joseph T. O'Flaherty</i>	587
Identification of Receptors for Insulin-like Growth Factor II in Two Insulin-like Growth Factor II-Producing Cell Lines	<i>P. D. K. Lee, D. Hodges, R. L. Hintz, J. H. Wyche, and R. G. Rosenfeld</i>	595
New Evidence That the Antiestrogen Binding Site May Be a Novel Growth-Promoting Histamine Receptor (H_3) Which Mediates the Antiestrogenic and Antiproliferative Effects of Tamoxifen	<i>Lorne J. Brandes and R. Patricia Bogdanovic</i>	601
Stimulation of Na,K-ATPase Activity of Frog Skeletal Muscle by Insulin	<i>Mariko Kanbe and Hiroshi Kitasato</i>	609
Phosphorylation of a Low-M _r High-Mobility Group Protein in Chinese Hamster Ovary Cells	<i>Jorma Palvimo, Pirkko Pohjanpelto, Annikka Linnala-Kankkunen, and Pekka H. Mäenpää</i>	617
Secretion Activities of <i>Bacillus subtilis</i> α -Amylase Signal Peptides of Different Lengths in <i>Escherichia coli</i> Cells	<i>Kiyoshi Nakazawa, Toshiya Takano, Akira Sohma, and Kunio Yamane</i>	624
Treatment with Poly (I:C) Enhances Lipid Peroxidation and the Activity of Xanthine Oxidase, and Decreases Hepatic P-450 Content and Activities in Mice and Rats	<i>Akio Koizumi, Roy L. Walford, and Toshiko Imamura</i>	632
The Production of Topoisomerase II-Mediated DNA Cleavage in Human Leukemia Cells Predicts Their Susceptibility to 4'-(9-Acridinylamino)methanesulfon- <i>m</i> -anisidide (<i>m</i> -AMSA)	<i>Milorad Bakic, Miloslav Beran, Borje S. Andersson, Lynn Silberman, Elihu Estey, and Leonard A. Zwelling</i>	638
Purification of 6-Pyruvoyltetrahydropterin Synthase from Human Liver	<i>S. Takikawa, H.-Ch. Curtius, U. Redweik, and S. Ghisla</i>	646
Effect of Synthetic Atrial Natriuretic Factor on Arginine Vasopressin Release by the Rat Hypothalamo-Neurohypophyseal Complex in Organ Culture	<i>Pawel Januszewicz, Gaétan Thibault, Raul Garcia, Jolanta Gutkowska, Jacques Genest, and Marc Cantin</i>	652
Evidence for the Contribution of a Sterol 14-Reductase to the 14 α -Demethylation of Lanosterol by Yeast	<i>Yuri Aoyama and Yuzo Yoshida</i>	659
Cell Calcium of Ejaculated Rabbit Spermatozoa before and following <i>in Vitro</i> Capacitation	<i>M. S. Mahanes, D. L. Ochs, and L. A. Eng</i>	664
A Rapid Method for the Preparation of ^{125}T -Labeled Human Growth Hormone for Receptor Studies, Using Reverse-Phase High-Performance Liquid Chromatography	<i>M. Mapoko Ilondo, Isabelle Dehart, and Pierre De Meyts</i>	671
Separation of Human Plasma Fibrin-Stabilizing Factor (Factor XIII) from Fibrinogen by Fibrinogen Polymer Formation	<i>Carter M. Becker</i>	678
Identification of Transglutaminase Substrates in Inside-out Vesicles from Human Erythrocytes: Immunoblotting with Anti-dansyl Antibody	<i>L. Lorand, S. N. P. Murthy, P. T. Velasco, and F. Karush</i>	685
Partial Dependency of 1-Oleoyl-3-acetylglycerol-Induced Superoxide Production by Human Neutrophils on Calcium Ions and Cytochalasin B	<i>Yukio Ozaki, Shoji Kume, Tatsuya Ohashi, and Yukie Niwa</i>	690
Crystal Structure of Methionine-Enkephalin	<i>Donald Mastropaolo, Arthur Camerman, and Norman Camerman</i>	698

Table of Contents

Phosphatidylinositol 4,5-Bisphosphate Formation in Rabbit Skeletal and Heart Muscle Membranes	<i>Magdolna Varsányi, Michael Messer, Neil R. Brandt, and Ludwig M. G. Heilmeyer, Jr.</i>	1395
Accumulation and Specific Cleavage of 5 S RNA in the Isthmus of Laying Hen Oviduct: Evidence for Three Chicken 5 S RNA	<i>G. Keith, Y. Nys, C. Fix, and T. Heyman</i>	1405
Fasting Increases Fat Cell Adenylate Cyclase Sensitivity to Stimulatory Agonists through Enhanced Ability of the Stimulatory Regulatory Component N_s to Dissociate	<i>Danièle Lacasa, Brigitte Agli, and Y. Giudicelli</i>	1411
Author Index for Volume 138		1420

Volume 139, Number 1, August 29, 1986

AUTHOR INDEX, Volume 139, Number 1, August 29, 1986		ii
Glucocorticoids and Cyclic AMP Synergistically Regulate the Abundance of Preproenkephalin Messenger RNA in Neuroblastoma-Glioma Hybrid Cells	<i>Kazuaki Yoshikawa and Steven L. Sabol</i>	1
A Possible Way for Prediction of Domain Boundaries in Globular Proteins from Amino Acid Sequence	<i>Ferenc Vonderviszt and István Simon</i>	11
A Novel Mass Spectrometric Procedure to Rapidly Determine the Partial Structure of Heparin Fragments	<i>Catherine J. McNeal, Ronald D. Macfarlane, and Ian Jardine</i>	18
Bilayer Asymmetry in Lysophosphatidylcholine/Cholesterol (1:1) Vesicles: A Phosphorus-31 NMR Study	<i>V. V. Kumar and Wolfgang J. Baumann</i>	25
Reaction of 1,3-Bis(2-chloroethyl)-1-nitrosourea (BCNU) with Guanosine: Evidence for a New Mechanism of DNA Modification	<i>Scott Parker, Marion C. Kirk, David B. Ludlum, R. Rao Koganty, and J. William Lown</i>	31
Degradation of (ADP-Ribose) _n in Permeabilized HeLa Cells	<i>Jozsef C. Gaal and Colin K. Pearson</i>	37
Effect of Osmolality on Angiotensin-Stimulated Aldosterone Production by Primary Cultures of Bovine Adrenal Glomerulosa Cells	<i>Edward G. Schneider and Robert E. Kramer</i>	46
Isolation of Angiotensin-Converting Enzyme Inhibitor from Porcine Plasma	<i>Tadahiko Hazato and Ryoichi Kase</i>	52
Mitochondrial Protein Phosphorylation and Cardiomyopathy in Genetically Diabetic Mice: The Effect of Estrone Treatment	<i>Tuan H. Kuo, Filiberto Giacomelli, and Joseph Wiener</i>	56
ADP-Ribosylation in Cultured Cells Treated with <i>Clostridium difficile</i> Toxin B.	<i>Inger Florin and Monica Thelestam</i>	64
Crystalline Serine Hydroxymethyltransferase from an Obligate Methylotroph, <i>Hyphomicrobium methylovorum</i>	<i>Silvia Susana Miyazaki, Shin-ichiro Toki, Yoshikazu Izumi, and Hideaki Yamada</i>	71
Evaluation of Chemically Induced Phototoxicity to Aquatic Organisms Using <i>Paramecium</i> as a Model	<i>Prakash C. Joshi and R. B. Misra</i>	79
Photolabeling of a O_2^- Generating Protein in Bovine Polymorphonuclear Neutrophils by an Arylazido $NADP^+$ Analog	<i>Jacques Doussiere, François Laporte, and Pierre V. Vignais</i>	85
Frequent Occurrence of Short Complementary Sequences in Nucleic Acids	<i>Ulf Segerstéen, Håkan Nordgren, and Jan-C. Biro</i>	94
Induction of Vascular Relaxation by Hydroperoxides	<i>George Thomas and Peter Ramwell</i>	102
Evaluation of the Actin Filament Length from the Time Course of the Depolymerization Process	<i>Enrico Grazi and Giorgio Trombetta</i>	109
Aspirin Inhibits Phospholipase C	<i>John S. Bomalaski, Fusao Hirata, and Mike A. Clark</i>	115

Binding of ApoA-IV-Phospholipid Complexes to Plasma Membranes of Rat Liver	122
<i>Giancarlo Ghiselli, William L. Crump III, and Antonio M. Gotto, Jr.</i>	
Identification of a Protease Gene of Human T-Cell Leukemia Virus Type I (HTLV-I) and Its Structural Comparison	129
<i>Seok Hyun Nam and Masakazu Hatanaka</i>	
1,25-Dihydroxyvitamin D ₃ Inhibits the Clonogenic Growth of Transformed Cells via Its Receptor	136
<i>C. A. Haussler, S. L. Marion, J. W. Pike, and M. R. Haussler</i>	
Occurrence of 4-Hydroxyalkenals in Rat Tissues Determined as Pentafluorobenzyl Oxime Derivatives by Gas Chromatography-Mass Spectrometry	144
<i>Frederik J. G. M. van Kuijk, David W. Thomas, Robert J. Stephens, and Edward A. Dratz</i>	
Affinity Purification and Structural Characterization of a Specific Binding Protein for Human Growth Hormone in Human Serum	150
<i>Adrian C. Herington, Susie I. Ymer, and Janet L. Stevenson</i>	
The Major Excreted Protein (MEP) of Transformed Mouse Cells and Cathepsin L Have Similar Protease Specificity	156
<i>Susannah Gal and Michael M. Gottesman</i>	
Isolation of a cDNA Coding for Human Galactosyltransferase	163
<i>Hubert E. Appert, Thomas J. Rutherford, George E. Tarr, Jon S. Wiest, Neil R. Thomford, and D. James McCorquodale</i>	
Evidence for a Sertoli Cell, FSH-Suppressible Inhibiting Factor(s) of Testicular Steroidogenic Activity	169
<i>M. Benahmed, A. M. Morera, and M. A. Chauvin</i>	
Presence of an Insulin-Stimulated Serine Kinase in Cell Extracts from IM-9 Cells	179
<i>Robert Ballotti, Aline Kowalski, Y. Le Marchand-Brustel, and Emmanuel Van Obberghen</i>	
Lack of Correlation between TPA-Induced Prostaglandin Biosynthesis and Ornithine Decarboxylase Activity in Balb/c Mouse 3T3 Fibroblasts	186
<i>Elena Traghi, Alberto Corsini, Remo Fumagalli, Liliana Flaminio, and Corrado L. Galli</i>	
The Voltage-Dependent Sodium Channel Is Colocalized with the Acetylcholine Receptor at the Vertebrate Neuromuscular Junction	196
<i>Patrick Dreyfus, François Rieger, Monique Murawsky, Luis Garcia, Alain Lombet, Michel Fosset, David Pauron, Jacques Barhanin, and Michel Lazdunski</i>	
The Helical Hydrophobic Moment Avoids Prolines in Phospholipid-Binding Proteins	202
<i>Henry J. Pownall, Antonio M. Gotto, Jr., Roger D. Knapp, and John B. Massey</i>	
Prenylated Proteins from Kidney	209
<i>E. Bruenger and H. C. Rilling</i>	
Reversible Activation and Inactivation of Phosphofructokinase from <i>Ascaris suum</i> by the Action of Tissue-Homologous Protein Phosphorylating and Dephosphorylating Enzymes	215
<i>Günter Daum, Hans P. Thalhoffer, Ben G. Harris, and H. Werner Hofer</i>	
Differential Cytolysis of Murine Spleen, Bone-Marrow, and Leukemia Cells by Melittin Reveals Differences in Membrane Topography	222
<i>Jerald J. Killion and Jon D. Dunn</i>	
<i>In Vivo</i> ³¹ P Nuclear Magnetic Resonance Studies of Arsenite-Induced Changes in Hepatic Phosphate Levels	228
<i>Benjamin Chen, C. Tyler Burt, Peter L. Goering, Bruce A. Fowler, and Robert E. London</i>	
Solubilization and Separation of Ca ²⁺ -ATPase from the Ca ²⁺ -Ryanodine Receptor Complex	235
<i>Isaac N. Pessah, Kenneth W. Anderson, and John E. Casida</i>	
Enzymatic Cleavage of the Blocked Amino Terminal Residues of Peptides	244
<i>Wanda M. Jones, Lois R. Manning, and James M. Manning</i>	
Phorbol Esters Down-Regulate Protein Kinase C in Rat Brain Cerebral Cortical Slices	251
<i>Shirish Shenolikar, E. William Karbon, and Salvatore J. Enna</i>	
Interconversion of Inositol (1,4,5)-Trisphosphate to Inositol (1,3,4,5)-Tetrakisphosphate and (1,3,4)-Trisphosphate in Permeabilized Adrenal Glomerulosa Cells Is Calcium Sensitive and ATP Dependent	259
<i>Michel F. Rossier, Isabelle A. Dentand, P. Daniel Lew, Alessandro M. Capponi, and Michel B. Vallotton</i>	

Table of Contents

The Phorbol Ester-Induced Atrial Natriuretic Peptide Secretion Is Stimulated by Forskolin and Bay K8644 and Inhibited by 8-Bromo-cyclic GMP	<i>H. Ruskoaho, M. Toth, D. Ganten, Th. Unger, and R. E. Lang</i>	266
A Human Autoimmune Antibody Specifically Recognizing Initiator Methionine tRNA from Yeast and Higher Eucaryotes	<i>Joannès Sri-Widada, Hubert Graafland, Renée Dietz, Claude Brunel, Guy Cathala, and Philippe Jeanteur</i>	275
Computer-Based Search for Steroid and DNA Binding Sites on Estrogen and Glucocorticoid Receptors	<i>Michael E. Baker</i>	281
Atrial Natriuretic Factor in Human Plasma	<i>Jolanta Gutkowska, Raoul Bonan, Denis Roy, Martial Bourassa, Raul Garcia, Gaëtan Thibault, Jacques Genest, and Marc Cantin</i>	287
<i>Tityus serrulatus</i> Toxin VII Bears Pharmacological Properties of Both β -Toxin and Insect Toxin from Scorpion Venoms	<i>M. E. De Lima, M. F. Martin, C. R. Diniz, and H. Rochat</i>	296
Involvement of Long-Chain Acyl CoA in the Antagonistic Effects of Halothane and L-Carnitine on Mitochondrial Energy-Linked Processes	<i>D. Branca, A. Toninello, G. Scutari, M. Florian, N. Siliprandi, E. Vincenti, and G. P. Giron</i>	303
Thrombin and Ionomycin Can Raise Platelet Cytosolic Ca^{2+} to Micromolar Levels by Discharge of Internal Ca^{2+} Stores: Studies Using Fura-2	<i>W. K. Pollock and T. J. Rink</i>	308
Reduced Phosphorylcholine Hydrolysis by Homogenates of Temporal Regions of Alzheimer's Brain	<i>Julian N. Kanfer and Douglas G. McCartney</i>	315
Conversion of Protein Kinase C from a Ca^{2+} -Dependent to an -Independent Form of Phorbol Ester-Binding Protein by Digestion with Trypsin	<i>Kuo-Ping Huang and Freesia L. Huang</i>	320
The Role of Superoxide Radicals in Lactoperoxidase-Catalyzed H_2O_2 -Metabolism and in Irreversible Enzyme Inactivation	<i>Herbert Jenzer and Heinz Kohler</i>	327
Apolipoprotein E-Mediated Binding of Hypertriglyceridemic Very Low Density Lipoproteins to Isolated Low Density Lipoprotein Receptors Detected by Ligand Blotting	<i>Spencer A. Brown, David P. Via, Antonio M. Gotto, Jr., William A. Bradley, and Sandra H. Gianturco</i>	333
Characterization of the Defective Calpain-Endogenous Calpain Inhibitor System in Erythrocytes from Milan Hypertensive Rats	<i>S. Pontremoli, E. Melloni, F. Salamino, B. Sparatore, M. Michetti, O. Sacco, and G. Bianchi</i>	341
Fucoesterol Decreases Angiotensin-Converting Enzyme Levels with Reduction of Glucocorticoid Receptors in Endothelial Cells	<i>Hiromi Hagiwara, Ken-ichi Wakita, Yuji Inada, and Shigehisa Hirose</i>	348
Interleukin 1α mRNA in Virus-Transformed T and B Cells	<i>Takafumi Noma, Tomoyuki Nakamura, Michiyuki Maeda, Masafumi Okada, Yoshihisa Taniguchi, Yutaka Tagaya, Yoshio Yaoita, Junji Yodoi, and Tasuku Honjo</i>	353
Human Serum Does Contain a High Molecular Weight Hepatocyte Growth Factor: Studies Pre- and Posthepatic Resection	<i>Clare Selden, R. Johnstone, Helen Darby, S. Gupta, and H. J. F. Hodgson</i>	361
The HTLV-III Envelope Protein Contains a Hexapeptide Homologous to a Region of Interleukin 2 That Binds to the Interleukin 2 Receptor	<i>Douglas A. Weigent, Paul D. Hoeprich, Kenneth L. Bost, Terence K. Brunck, Walter E. Reiher III, and J. Edwin Blalock</i>	367
ERRATUM		
Volume 136, Number 3, May 14, 1986: Kenneth A. Jacobson, Noboyiuki Yamada, Kenneth L. Kirk, John W. Daly, and R. A. Olsson, "N ⁶ -Functionalized Congeners of Adenosine with High Potency at A ₂ -Adenosine Receptors: Potential Ligands for Affinity Chromatography," pp. 1097-1102		375

Volume 139, Number 2, September 16, 1986

AUTHOR INDEX, Volume 139, Number 2, September 16, 1986	ii
Oversulfated Chondroitin Sulfate Proteoglycan in Cultured Human Peritoneal Macrophages	<i>Svein O. Kolset</i> 377
Identification of a New, Naturally Occurring, Nonproteic Amino Acid in Xylem Sap of <i>Pisum sativum</i>	<i>G. Fortier and S.L. MacKenzie</i> 383
Flash Spectrophotometric Identification of a Fourth Rhodopsin-like Pigment in <i>Halobacterium halobium</i>	<i>Hiroaki Tomioka, Tetsuo Takahashi, Naoki Kamo, and Yonosuke Kobatake</i> 389
Specific Binding of Estrogen Receptor to Sites Upstream and within the Transcribed Region of the Chicken Ovalbumin Gene	<i>Alessandro Weisz, Luigi Coppola, and Francesco Bresciani</i> 396
No Synergism between Ionomycin and Phorbol Ester in Fatty Acid Synthesis by Isolated Rat Hepatocytes	<i>W. J. Vaartjes, C. Bijleveld, M. J. H. Geelen, and S. G. van den Bergh</i> 403
Control of Fungal Sterol C-24 Transalkylation: Importance to Developmental Regulation	<i>W. David Nes, Patrick K. Hanners, and Edward J. Parish</i> 410
HDL-Induced Cardiac Prostacyclin Synthesis: Relative Contribution of HDL Apoprotein and Lipid	<i>William A. Van Sickle, Henry G. Wilcox, and Alberto Nasjletti</i> 416
Purification and Physicochemical Properties of a Unique Vero Cell Cytotoxin from <i>Escherichia coli</i> 0157:H7	<i>Vikas V. Padhye, Frederick B. Kittell, and Michael P. Doyle</i> 424
Atrial Natriuretic Factor Induced Phosphorylation of Human Placental Membrane Protein: An Effect Mimicked by Guanosine 3':5'-Cyclic Monophosphate	<i>Indira Sen and Pampa Roy</i> 431
Stimulation of Tyrosine-Specific Protein Phosphorylation in the Rat Liver Plasma Membrane by Oxygen Radicals	<i>Timothy M. Chan, Eudora Chen, A. Tatoyan, N. S. Shargill, Majella Pleta, and P. Hochstein</i> 439
Complete Purification of Human Renal Renin and Sequence of the Amino Terminus	<i>Tatsuo Shinagawa, Yung-Shun Do, Helen Tam, and Willa A. Hsueh</i> 446
Inhibition of Phospholipase A ₂ by Protein I	<i>Navin C. Khanna, Mariette Hee-Chong, David L. Severson, Masaaki Tokuda, Sarah M. Chong, and David M. Waisman</i> 455
Identification of Poly G Bound to Thymidylate Synthase	<i>Janet Thorndike and Roy L. Kisliuk</i> 461
Purification and Characterization of a Form of Cytochrome P-450 with High Specificity for Aflatoxin B ₁ from 3-Methylcholanthrene-Treated Hamster Liver	<i>Keinosuke Mizokami, Takehiko Nohmi, Morio Fukuhara, Akira Takanaka, and Yoshihito Omori</i> 466
A p60 ^{v-src} -Related Tyrosine Kinase in the Acetylcholine Receptor-Rich Membranes of <i>Narke japonica</i> : Association and Dissociation of Phosphatidylinositol Kinase Activity	<i>Yasuo Fukami, M. Koji Owada, Mariko Sumi, and Fumio Hayashi</i> 473
Presence of Met-Enkephalin in Bovine Pituitary Intraglandular Colloid of Intermediate Lobe Origin	<i>W. H. Boyd, R. Krogsrud, and D. Jichici</i> 480
Direct ¹ H NMR Determination of the Stereochemical Course of Hydrolyses Catalyzed by Glucanase Components of the Cellulase Complex	<i>Stephen G. Withers, Dennise Dombroski, Leise A. Berven, Douglas G. Kilburn, Robert C. Miller, Jr., R. Anthony J. Warren, and Neil R. Gilkes</i> 487
Influence of a Tumor-Promoting Phorbol Ester on the Metabolism of 25-Hydroxyvitamin D ₃	<i>Helen L. Henry</i> 495
Effect of an Anti-insulin-like Growth Factor I Receptor Antibody on Insulin-like Growth Factor II Stimulation of DNA Synthesis in Human Fibroblasts	<i>C. A. Conover, P. Misra, R. L. Hintz, and R. G. Rosenfeld</i> 501
Inhibition by Antioxidants of Agonist-Evoked Cytosolic Ca ²⁺ Increase, ATP Secretion, and Aggregation of Aspirinated Human Platelets	<i>Adolfo Alexandre, M. Gabriella Doni, Emilia Padoin, and Renzo Deana</i> 509

Melanoma Cell Adhesion to Defined Extracellular Matrix Components	<i>Peter A. Netland and Bruce R. Zetter</i>	515
Poly(ADP-Ribose) Effectively Competes with DNA for Histone H4 Binding	<i>Georg Sauermann and Józefa Węsierska-Gądek</i>	523
Evaluation of the Role of Calcium in Cytotoxic Injury in Isolated Rat Pancreatic Acini	<i>A. P. N. Majumdar, G. D. Vesenka, M. A. Dubick, and M. C. Geokas</i>	530
Evidence for Different Transport Systems for Oxidized Glutathione and S-Dinitrophenyl Glutathione in Human Erythrocytes	<i>E. F. LaBelle, S. V. Singh, S. K. Srivastava, and Y. C. Awasthi</i>	538
Growth-Stimulating Activity on 3T3 Fibroblasts of the Molecular Weight 6500-Peptide Purified from Rat Pancreatic Juice	<i>Shin-Ichi Fukuoka, Tohru Fushiki, Yasuo Kitagawa, Etsuro Sugimoto, and Kazuo Iwai</i>	545
Detection of an Unstable Murine Hemoglobin	<i>C. J. Wawrzyniak and R. A. Popp</i>	551
Unmasking of the Inhibitory Action of Glucose on Insulin Release after α_2 -Adrenergic Activation	<i>Peter Bergsten and Bo Hellman</i>	557
Structural Changes in Retinol-Binding Protein Induced by Retinol Removal: A Molecular Dynamics Study	<i>P. Sandblom, J. Åqvist, T. A. Jones, M. E. Newcomer, W. F. van Gunsteren, and O. Tapia</i>	564
Modification of Brain Fructose-1,6-bisphosphatase Activity by Chelators: "Induction" of 5'-AMP Sensitivity	<i>Sanghita Chattoraj and Arun Lahiri Majumder</i>	571
Modulation of Depolarization-Stimulated $^{45}\text{Ca}^{2+}$ Uptake in Cultured Neuronal Cells by Calcium Channel Activators and Antagonists	<i>Judith A. Creba and Manfred Karobath</i>	581
Crystal Structure of L-Pro-L-Leu-Aib-Aib-L-Glu-L-Valol, the C-Terminal Hexapeptide Fragment of Trichotoxin	<i>Michael Kokkinidis, David W. Banner, Demetrius Tsernoglou, and Hans Brückner</i>	590
Identification of a Major Bovine Heart Ca^{2+} -Binding Protein	<i>David Morton Waisman, Navin C. Khanna, and Masaaki Tokuda</i>	596
A Possible Role of Protein Kinase C in Regulating Prostaglandin Synthesis of Mouse Peritoneal Macrophages	<i>H.-J. Pfannkuche, V. Kaefer, and K. Resch</i>	604
Calcium Uptake by Intracellular Compartments in Permeabilized Enterocytes: Effect of Inositol 1,4,5-Triphosphate	<i>Gloria Velasco, Stephen B. Shears, Robert H. Michell, and Pedro S. Lazo</i>	612
Transforming Growth Factor Activity of Bovine Brain-Derived Growth Factor	<i>Shuan Shian Huang, Ming-Der Kuo, and Jung San Huang</i>	619
Formation of 8-Hydroxyguanine Residues in Cellular DNA Exposed to the Carcinogen 4-Nitroquinoline 1-Oxide	<i>Kohfuku Kohda, Mariko Tada, Hiroshi Kasai, Susumu Nishimura, and Yutaka Kawazoe</i>	626
C-Terminal PTH(70-84) after Biliary Ligation in Rats—Implications for the Diagnostic Importance in Hepatobiliary Disease	<i>H. Jüppner, E. F. Rittinghaus, M. Ahlgrim, M. Burdelski, and H. Dralle</i>	633
Identification of a DNA Segment Containing the Human DNA Polymerase α Gene	<i>Hiroshi Miyazawa, Megumi Tandai, Fumio Hanaoka, Masa-atsu Yamada, Tada-aki Hori, Kenji Shimizu, and Mutsuo Sekiguchi</i>	637
Nerve Growth Factor Enhances the Level of the Protein Kinase C Substrate B-50 in Pheochromocytoma PC12 Cells	<i>C. O. M. Van Hooff, P. N. E. De Graan, J. Boonstra, A. B. Oestreicher, M. H. Schmidt-Michels, and W. H. Gispen</i>	644
Regulation of Ferritin Synthesis in Malignant and Nonmalignant Lymphoid Cells	<i>Gaetano Cairo, Paolo Vezzoni, Lidia Bardella, Luisa Schiaffonati, Emilia Rappocciolo, Sonia Levi, Paolo Arosio, and Aldo Bernelli-Zazzera</i>	652
Characterization of the Soluble Hydrogenase from <i>Desulfovibrio africanus</i>	<i>V. Nivière, N. Forget, J. P. Gayda, and E. C. Hatchikian</i>	658
3-Hydroxykynurenine as $\text{O}_2^{\cdot -}$ Scavenger in the Blowfly, <i>Aldrichina grahami</i>	<i>Naoki Goshima, Akira Wadano, and Kazuo Miura</i>	666
Somatostatin Inhibits Fusion of Pituitary Secretion Vesicles with the Plasma Membranes	<i>Boris Draznin, Claudia Steiner, Nancy Sherman, and Karl Sussman</i>	673

Table of Contents

A Low Molecular Weight Growth Inhibitor Secreted in Cultures of Chicken Embryo Fibroblasts	<i>Chander P. Sharma and Heinz Gehring</i>	1243
Urea-Induced Transformation of Native Estrogen Receptor and Evidence for Separate DNA- and ATP-Binding Sites	<i>T. William Hutchens, Chee Ming Li, and Paige K. Besch</i>	1250
Growth Hormone-Dependent Insulin-like Growth Factor (IGF) Binding Protein from Human Plasma Differs from Other Human IGF Binding Proteins	<i>Robert C. Baxter, Janet L. Martin, Margaret I. Tyler, and Merlin E. H. Howden</i>	1256
Heart Mitochondria in Physiological Salt Solution: Not Ionic Strength but Salt Composition Is Important for Association of Creatine Kinase with the Inner Membrane Surface	<i>V. A. Saks, Z. A. Khuchua, A. V. Kuznetsov, V. I. Veksler, and V. G. Sharov</i>	1262
Inhibition of Inositol Phospholipids Metabolism and Calcium Mobilization by Cyclic AMP-Increasing Agents and Phorbol Ester in Neutrophils	<i>Hiroyuki Kato, Junichi Ishitoya, and Tadaomi Takenawa</i>	1272
The 9-Carboxyl Group of Pyrroloquinoline Quinone, a Novel Prosthetic Group, Is Essential in the Formation of Holoenzyme of D-Glucose Dehydrogenase	<i>Emiko Shinagawa, Kazunobu Matsushita, Masatsugu Nonobe, Osao Adachi, Minoru Ameyama, Yoshiki Ohshiro, Sinobu Itoh, and Yutaka Kitamura</i>	1279
Inhibitory Roles of the Hypothalamic Atrial Natriuretic Polypeptide on the Vasopressin Release in the Sodium-Loaded Rats	<i>Hakuo Takahashi, Hideoki Okabayashi, Keisuke Suga, Makoto Matsuzawa, Iwao Ikegaki, Manabu Yoshimura, and Hamao Ijichi</i>	1285
1,25-Dihydroxyvitamin D ₃ Enhances the Growth of Tumors in Athymic Mice Inoculated with Receptor Rich Osteosarcoma Cells	<i>Kanji Yamaoka, Samuel L. Marion, Alfred Gallegos, and Mark R. Haussler</i>	1292
Methylation of the c-myc Gene Changes during Aging Process of Mice	<i>Tetsuya Ono, Riichi Tawa, Kayoko Shinya, Shingo Hirose, and Shigefumi Okada</i>	1299
Nitrile Hydratase of <i>Brevibacterium</i> R312: Purification and Characterization	<i>Toru Nagasawa, Koichiro Ryuno, and Hideaki Yamada</i>	1305
(Na ⁺ +K ⁺)-ATPase Activity in Kidney Basolateral Membranes of Non-Insulin-Dependent Diabetic Rats	<i>Joseph Levy, Louis V. Avioli, Marilyn L. Roberts, and James R. Gavin III</i>	1313
ERRATUM		
Volume 138, Number 3, August 14, 1986: Floyd W. Sweat, Barbara A. Gower, Patricia G. Berger, and Norman C. Negus, "Beta-Adrenergic Binding Is Increased by Melatonin and Alpha-Adrenergic Compounds," pp. 1196-1202.		
Author Index for Volume 139		1321

Volume 140, Number 1, October 15, 1986

AUTHOR INDEX, Volume 140, Number 1, October 15, 1986		ii
Double Stimulation with FMLP and ConA Restores the Activation of the Respiratory Burst but Not of the Phosphoinositide Turnover in Ca ²⁺ -Depleted Human Neutrophils: A Further Example of Dissociation between Stimulation of the NADPH Oxidase and Phosphoinositide Turnover	<i>Filippo Rossi, Mirosława Grzeskowiak, and Vittorina Della Bianca</i>	1
Fibronectin Binds to Amyloid P Component: Localization of the Binding Site to the 31,000 Dalton C-Terminal Domain	<i>Agueda Rostagno, Blas Frangione, Edward Pearlstein, and Angeles Garcia-Pardo</i>	12
Cloning and Expression of a cDNA Encoding a Catalytically Active Fragment of Calf Thymus DNA Polymerase α	<i>Kimberly Foster, Kersten Lüthi-Steinmann, Marjorie Barnes, Gary McMaster, Elena Ferrari, Knut Eliassen, Naseema Khan, Neal Brown, and Ulrich Hübscher</i>	21
Assignment of Phosphorylation Sites in Buffalo β -Casein by Fast Atom Bombardment Mass Spectrometry	<i>P. Petrilli, P. Pucci, H. R. Morris, and F. Addeo</i>	28

Inhibition of Human Renal Epithelial Na ⁺ /P _i Cotransport by Phosphonoformic Acid <i>Ahad N. K. Yusufi, Mirosława Szczepanska-Konkel, Stephen A. Kempson, James A. McAteer, and Thomas P. Doussa</i>	679
Effect of Tolbutamide on Fructose-6-phosphate 2-Kinase and Fructose-2,6-bisphosphatase in Rat Liver <i>Kohei Kaku, Masafumi Matsuda, Akira Matsutani, and Toshio Kaneko</i>	687
Type β Transforming Growth Factor Is a Potent Modulator of Differentiated Adrenocortical Cell Functions <i>J. J. Feige, C. Cochet, and E. M. Chambaz</i>	693
The Presence of Multiple Intrinsic Membrane Nickel-Containing Hydrogenases in <i>Desulfovibrio vulgaris</i> (Hildenborough) <i>Thierry Lissolo, Eui S. Choi, Jean LeGall, and Harry D. Peck, Jr.</i>	701
β Thalassemia Due to a Novel Mutation in IVS 1 Sequence Donor Site Consensus Sequence Creating a Restriction Site <i>Claudine Lapoumeroulie, Josee Pagnier, Arthur Bank, Dominique Labie, and Rajagopal Krishnamoorthy</i>	709
Amino Acid Sequence Homology between Yeast Hexokinases and Rat Hexokinase C <i>Frank Marcus and Tito Ureta</i>	714
Enhancement by Interleukin-1 (IL-1) of Plasminogen Activator Inhibitor (PA-I) Activity in Cultured Human Endothelial Cells <i>M. Gramse, F. Breviario, G. Pintucci, I. Millet, E. Dejana, J. van Damme, M. B. Donati, and L. Mussoni</i>	720
Structure-Activity Relationship in Heparin: Stimulation of Nonvascular Cells by a Synthetic Heparin Pentasaccharide in Cooperation with Human Acidic Fibroblast Growth Factors <i>S. Uhlrich, O. Lagente, J. Choay, Y. Courtois, and M. Lenfant</i>	728
Presence of a Histidine at the Active Site of the Neutral Endopeptidase-24.11 <i>Ann Beaumont and Bernard P. Roques</i>	733
Solubilization of the Iron Molybdenum Cofactor of <i>Azotobacter vinelandii</i> Nitrogenase in Dimethylformamide and Acetonitrile <i>Samuel M. Lough, Deloria L. Jacobs, Dorothy M. Lyons, Gerald D. Watt, and John W. McDonald</i>	740
1-Amino-3,7,8-trichlorodibenzo- <i>p</i> -dioxin: A Specific Antagonist for TCDD-Induced Myelotoxicity <i>Michael I. Luster, Lily H. Hong, Rosemarie Osborne, James A. Blank, George Clark, Marianne T. Silver, Gary A. Boorman, and William F. Greenlee</i>	747
Chemical Crosslinking of Somatostatin Receptors in Rat Adrenal Cortex <i>C. B. Srikant and Y. C. Patel</i>	757
Amphiphilic Growth Hormone Releasing Factor (GRF) Analogs: Peptide Design and Biological Activity <i>in Vivo</i> <i>Jacob S. Tou, Larry A. Kaempfe, Billy D. Vineyard, Frances C. Buonomo, Mary Anne Della-Fera, and Clifton A. Baile</i>	763
Biochemical and Biological Activities of N-ras Proteins <i>Amy Moore Geis, Margery Nicolson, and Robert A. Goldman</i>	771
The Anti-sickling Drug Lawsone (2-OH-1,4-naphthoquinone) Protects Sickled Cells against Membrane Damage <i>David T. Clarke, Gareth R. Jones, and Margaret M. Martin</i>	780
Altered Properties of cAMP-Dependent Protein Kinase in H-ras-Transformed NIH3T3 Cells <i>Takaki Hiwasa and Shigeru Sakiyama</i>	787
Generation of Transgenic Mice Producing a Human Transthyretin Variant: A Possible Mouse Model for Familial Amyloidotic Polyneuropathy <i>Hiroyuki Sasaki, Shigenobu Toné, Masamitsu Nakazato, Katsuji Yoshioka, Hisayuki Matsuo, Yoshihiro Kato, and Yoshiyuki Sakaki</i>	794
Transforming Growth Factor-Beta Regulates the Expression of Luteinizing Hormone Receptors in Ovarian Granulosa Cells <i>Michael Knecht, Pei Feng, and Kevin J. Catt</i>	800
Metabolic Dehydration of Prostaglandin E ₂ and Cellular Uptake of the Dehydration Product: Correlation with Prostaglandin E ₂ -Induced Growth Inhibition <i>Kouji Ohno, Motohatsu Fujiwara, Masanori Fukushima, and Shuh Narumiya</i>	808

Table of Contents

Alterations in Intracellular Calcium Activity and Contractility of Isolated Perfused Rabbit Hearts by Ionophores and Adrenergic Agents	Frank A. Lattanzio, Jr., and Berton C. Pressman	816
Binding and Uptake of Copper from Ceruloplasmin	Stephen J. Orena, Christina A. Goode, and Maria C. Linder	822
Acetylcholine Receptor Dimers Are Stabilized by Extracellular Disulfide Bonding	Susan M. J. Dunn, Bianca M. Conti-Tronconi, and Michael A. Raftery	830
N-Acetylneuraminic Acid Accumulation in a Buoyant Lysosomal Fraction of Cultured Fibroblasts from Patients with Infantile Generalized N-Acetylneuraminic Acid Storage Disease	John Hildreth IV, Lili Sacks, and Larry W. Hancock	838
Biosynthesis of Reovirus-Specified Polypeptides: Molecular cDNA Cloning and Nucleotide Sequence of the Reovirus Serotype 1 Lang Strain s3 mRNA Which Encodes the Nonstructural RNA-Binding Protein Sigma NS	Cyril X. George, Jonathan A. Atwater, and Charles E. Samuel	845

ERRATA

Volume 136, Number 2, April 29, 1986: Benjamin Y. Klein, Rafael Nesher, and Erol Cerasi, "Induction of Insulin Release in Fibroblasts Transfected with Genomic Rat Islet DNA," pp. 638-644	852
Volume 138, Number 1, July 16, 1986: Don H. Nelson and Darrell K. Murray, "Sphingolipids Inhibit Insulin and Phorbol Ester Stimulated Uptake of 2-Deoxyglucose," pp. 463-467	852

Volume 139, Number 3, September 30, 1986

AUTHOR INDEX, Volume 139, Number 3, September 30, 1986	ii
Phosphorylation of Protein Tyrosine by Human Erythrocyte Casein Kinase A <i>Pao-Wen Lu and Mariano Tao</i>	855
Lysates of Two Established Human Tumor Lines Contain Heparin-Binding Growth Factors Related to Bovine Acidic Brain Fibroblast Growth Factor <i>Roy R. Lobb, Susanna M. Rybak, Daret K. St. Clair, and James W. Fett</i>	861
Direct Regulatory Effect of Cholesterol on the Calmodulin Stimulated Calcium Pump of Cardiac Sarcolemma <i>Alicia Ortega and Jaime Mas-Oliva</i>	868
Protein Kinase C from Small Intestine Epithelial Cells <i>Gloria Velasco, Carmen F. Iglesias, Pedro Domínguez, Francisco Barros, Santiago Gascón, and Pedro S. Lazo</i>	875
Reconstitution of Liver Monooxygenase System in Solution from Cytochrome P-450 and NADPH-Specific Flavoprotein Monomers <i>G. I. Bachmanova, E. D. Skotselyas, I. P. Kanaeva, G. P. Kuznetsova, S. A. Gordeev, E. N. Korneva, A. V. Karyakin, and A. I. Archakov</i>	883
Component C of the Methylcoenzyme M Methylreductase System Contains Bound 7-Mercaptoheptanoylthreonine Phosphate (HS-HTP) <i>Kenneth M. Noll and Ralph S. Wolfe</i>	889
Comparison of Peptide Aldehydes with α_1 -Antitrypsin as Elastase Inhibitors for Use in Emphysema <i>N. A. Roberts and A. E. Surgenor</i>	896
Differential Effects of Protein Kinase C Activators on Carbamylcholine- and High K^+ - Induced Rises in Intracellular Free Calcium Concentration in Cultured Adrenal Chromaffin Cells <i>Nobuyuki Sasakawa, Kunio Ishii, Satoshi Yamamoto, and Ryuichi Kato</i>	903
Identification and Characterization of the Tyrosine Protein Kinases of Rat Spleen <i>Masaaki Tokuda, Navin C. Khanna, Akhil K. Arora, and David M. Waisman</i>	910
Enhanced Instability of IncFII Basic Replicon by the <i>polA</i> Mutation <i>Hisashi Yoshimoto, Chihiro Sasakawa, Hirofumi Danbara, Toshio Umemoto, and Masanosuke Yoshikawa</i>	918

Severe Depletion in Liver Glutathione during Physical Exercise	Steven Pyke, Helen Lew, and Alexandre Quintanilha	926
Identification of an Enzymatic Activity That Hydrolyzes Protein-Bound ADP-Ribose in Skeletal Muscle	Yen-Chung Chang, Gopalan Soman, and Donald J. Graves	932
Proline Inhibits N ₂ -Fixation in <i>Anabaena</i> 7120	D. W. Spence and W. D. P. Stewart	940
The Association of Ribulose-1,5-bisphosphate Carboxylase with Phosphoriboisomerase and Phosphoribulokinase	Jayashree K. Sainis and Gary C. Harris	947
The Methoxatin Semiquinone: A Pulse Radiolysis Study	M. Faraggi, Ramamurthy Chandrasekar, Robert B. McWhirter, and Michael H. Klapper	955
Preparation and Spectroscopic Studies of Cobalt(II)-Substituted Cucumber Basic Blue Protein "Plantacyanin"	Takeshi Sakurai	961
Nucleotide Stereochemistry in the Formyltetrahydrofolate Synthetase Reaction	Magdalena R. Mejillano and Richard H. Himes	967
A Retinal Heat Shock Protein Is Associated with Elements of the Cytoskeleton and Binds to Calmodulin	Bruce D. Clark and Ian R. Brown	974
Peptide Analogs of Angiotensinogen: Effect of Peptide Chain Length on Renin Inhibition	Jacob J. Plattner, Jonathan Greer, Anthony K. L. Fung, Herman Stein, Hollis D. Kleinert, Hing Leung Sham, Jill R. Smital, and Thomas J. Perun	982
Evidence That Divalent Cations Bind to Diphtheria Toxin: An ESR Approach	Riccardo Basosi, Vladimir Kushnaryov, Tomasz Panz, and Ching-San Lai	991
Antibodies Reveal the Cytolocalization and Subunit Structure of the 1,4-Dihydropyridine Component of the Neuronal Ca ²⁺ Channel	Annie Schmid, Jacques Barhanin, Christiane Mourre, Thierry Coppola, Marc Borsotto, and Michel Lazdunski	996
Electron Transfer Reaction of Cytochrome <i>c</i> Peroxidase at Tin Oxide Electrodes	Hanna Assefa and Edmond F. Bowden	1003
Human Alcohol Dehydrogenases and Serotonin Metabolism	Valerio Consalvi, Göran Mardh, and Bert L. Vallee	1009
Phosphorylation of Liver Pyruvate Kinase by Ca ²⁺ /Calmodulin-Dependent Protein Kinase: Characterization of Two Phosphorylation Sites	Thomas R. Soderling, Charles M. Schworer, M. Raafat El-Maghrabi, and Simon J. Pilkis	1017
Distribution of Immunoreactive Peptide B in the Rat Brain	I. Lindberg and L. White	1024
Effect of Phosphorylation by Different Protein Kinases on the Behavior of Glycogen Synthase as a Substrate for Hepatic Synthase Phosphatases	Mathieu Bollen, Maria Plana, Emilio Itarte, and Willy Stalmans	1033
Sequence Analysis of Cloned cDNA for Rat Substance P Precursor: Existence of a Third Substance P Precursor	Yoshiya Kawaguchi, Minoru Hoshimaru, Hiroyuki Nawa, and Shigetada Nakanishi	1040
Atrial Natriuretic Peptide mRNA Is Regulated by Glucocorticoids <i>in Vivo</i>	D. G. Gardner, S. Hane, D. Trachewsky, D. Schenk, and J. D. Baxter	1047
Periportal and Perivenous Hepatocytes Retain Their Zonal Characteristics in Primary Culture	B. Quistorff, J. Dich, and N. Grunnet	1055
α -2-Plasmin Inhibitor Comprises a Single Domain	Ralph A. Magnotti, Jr., and H. Brian Halsall	1062
mRNA from Human Colon Tumor and Mucosa Related to the <i>pol</i> Gene of an Endogenous A-type Retrovirus	Jeffrey A. Moshier, Gordon D. Luk, and Ru Chih C. Huang	1071
Identification of Low Density Lipoprotein Receptor Binding Domains of Human Apolipoprotein B-100: A Proposed Consensus LDL Receptor Binding Sequence of APOB-100	Ashok V. Hospattankar, Simon W. Law, Karl Lackner, and H. Bryan Brewer, Jr.	1078
Regulation of Glucokinase Activity in the Domestic Fowl	Hillar Klandorf, Bart L. Clark, Ann C. Scheck, and Josiah Brown	1086
A Part of Codon Bias in Genes Protects Protein Spatial Structures from Destabilization by Random Single Point Mutations	Jaroslav Kypr	1094

Arachidonic Acid Releasing Systems in Pig Aorta Endothelial Cells	
<i>J. Moscat, F. Moreno, C. Herrero, S. Iglesias, and P. Garcia-Barreno</i>	1098
Biomimetic Oxidation of Lignin Model Compounds by Simple Inorganic Complexes	
<i>Van-Ba Huynh</i>	1104
Biosynthesis of Riboflavin: Enzymatic Formation of 6,7-Dimethyl-8-ribityllumazine by Heavy Riboflavin Synthase from <i>Bacillus subtilis</i>	
<i>Gerhard Neuberger and Adelbert Bacher</i>	1111
Transplasmalemma Electron Transport from Cells Is Part of a Diferric Transferrin Reductase System	
<i>H. Löw, I. L. Sun, P. Navas, C. Grebing, F. L. Crane, and D. J. Morré</i>	1117
Superoxide Photogeneration by Chlorophyll <i>a</i> in Water/Acetone: Electron Spin Resonance Studies of Radical Intermediates in Chlorophyll <i>a</i> Photoreaction <i>in Vitro</i>	
<i>Jun-Ling You and Francis K. Fong</i>	1124
Induction of Glucose-6-phosphatase in Cultured Hepatoma Cells by Dexamethasone	
<i>Rebecca C. Garland</i>	1130
Characterization of an Alveolyn-like Protein Associated with Mouse Type 2 Pneumocytes Using Immunochemical Methods	
<i>R. K. Kumar, G. J. Smith, J. Y. Truscott, C. P. Hristoforidis, and A. W. J. Lykke</i>	1135
Characterization of a Novel Prepro VIP Derived Peptide	
<i>Yiangos Yiangou, Felix Requejo, Julia M. Polak, and Stephen R. Bloom</i>	1142
Homogeneous Interferon- β -Inducing 22K Factor (IL $_{1\beta}$) Has Connective Tissue Cell Stimulating Activities	
<i>R. A. D. Bunning, J. Van Damme, H. J. Richardson, D. E. Hughes, G. Opdenakker, A. Billiau, and R. G. G. Russell</i>	1150
Different Behavior of the Octadeoxynucleotides d(A-T) and d(T-A) $_4$ at High Concentrations of Cesium Fluoride	
<i>Michaela Vorlíčková, Eckhard Birch-Hirschfeld, Hartmut Lang, and Jaroslav Kypr</i>	1158
Ethidium Cooperativity in the Formation of Complexes with CpG	
<i>Mustafa Day and C. G. Trowbridge</i>	1164
Features of the Translocation of Protein Kinase C in Neutrophils Stimulated with the Chemotactic Peptide F-Met-Leu-Phe	
<i>Wilhelm Horn and Manfred L. Karnovsky</i>	1169
A <i>Trypanosoma cruzi</i> Monoclonal Antibody That Recognizes a Superficial Tubulin-like Antigen	
<i>Antonio Alcina, Alan J. Hargreaves, Jesús Avila, and Manuel Fresno</i>	1176
Cleavage Site Specificity of Vertebrate Collagenases	
<i>Harold Weingarten and Joseph Feder</i>	1184
5,6-Epoxyeicosatrienoic Acid Mobilizes Ca $^{2+}$ in Anterior Pituitary Cells	
<i>G. Snyder, F. Lattanzio, P. Yadagiri, J. R. Falck, and J. Capdevila</i>	1188
Coenzyme A in Purified Peroxisomes Is Not Freely Soluble in the Matrix but Firmly Bound to a Matrix Protein	
<i>Paul P. Van Veldhoven and Guy P. Mannaerts</i>	1195
Distinct Specificities of Repressible Acid Phosphatase from Yeast toward Phosphoseryl and Phosphotyrosyl Phosphopeptides	
<i>Arianna Donella-Deana, Ksenija Lopandic, Slobodan Barbaric, and Lorenzo A. Pinna</i>	1202
On the Nature of Cellular ADP-Ribosyltransferase from Rat Liver Specific for Elongation Factor 2	
<i>O. Sayhan, M. Özdemirli, R. Nurten, and E. Bermek</i>	1210
Direct Radioimmunoassay for Human Atrial Natriuretic Peptide (hANP) and Its Clinical Evaluation	
<i>H. Jüppner, G. Brabant, U. Kapteina, M. Kirschner, H. Klein, and R. D. Hesch</i>	1215
A Novel Loop Structure Observed in d-GAATCCCCGAATTC by 2D NMR	
<i>R. V. Hosur, Anu Sheth, K. V. R. Chary, M. Ravikumar, Girjesh Govil, Tan Zu-kun, and H. Todd Miles</i>	1224
Parathyroid Hormone Secretion Does Not Respond to Changes of Free Calcium in Electroporabilized Bovine Parathyroid Cells, but Is Stimulated with Phorbol Ester and Cyclic AMP	
<i>R. Muff and J. A. Fischer</i>	1233
The Cytotoxic Eosinophil Cationic Protein (ECP) Has Ribonuclease Activity	
<i>Urban Gullberg, Bengt Widegren, Ulfur Arnason, Arne Egesten, and Inge Olsson</i>	1239

A Novel Sulfotransferase Sulfates Tyrosine-Containing Peptides and Proteins	Kyoichi Kobashi and Dong-Hyun Kim	38
The Hepatic Galactosyl Receptor System: Two Different Ligand Dissociation Pathways Are Mediated by Distinct Receptor Populations	Paul H. Weigel, Benjamin L. Clark, and Janet A. Oka	43
Mechanism of Mannose Toxicity	Mónica de la Fuente, Pablo F. Peñas, and Alberto Sols	51
Type- β Transforming Growth Factor Inhibits Proliferation and Expression of Alkaline Phosphatase in Murine Osteoblast-like Cells	Masaki Noda and Gideon A. Rodan	56
α -Difluoromethylornithine Induces Differentiation of a Human Embryonal Carcinoma Cell Line <i>in Vitro</i>	Lynne Uhl, Michael Kelly, and Joel Schindler	66
Do Rat Hepatic Microsomes Contain Multiple NADPH-Supported Fatty Acid Chain Elongation Pathways or a Single Pathway?	Mahmoud N. Nagi, Lynda Cook, M. Renuka Prasad, and Dominick L. Cinti	74
Regulation of Production of Embryonic Chick Liver δ -Aminolevulinatase Synthase: Effects of Testosterone and of Hemin on the mRNA of the Enzyme	Paul D. Drew and Ibrahim Z. Ades	81
Deficiency of Subunits in Heart Mitochondrial NADH-Ubiquinone Oxidoreductase of a Patient with Mitochondrial Encephalomyopathy and Cardiomyopathy	Masashi Tanaka, Morimitsu Nishikimi, Hiroshi Suzuki, Takayuki Ozawa, Masatoyo Nishizawa, Keiko Tanaka, and Tadashi Miyatake	88
Liver Endothelium Desialates Ceruloplasmin	S. Irie and M. Tavassoli	94
Physical and Functional Association of the Atrial Natriuretic Peptide Receptor with Particulate Guanylate Cyclase as Demonstrated Using Detergent Extracts of Bovine Lung Membranes	Masami Ishido, Tetsuro Fujita, Hiromi Hagiwara, Motoyuki Shimonaka, Toshihiko Saheki, Yukio Hirata, and Shigehisa Hirose	101
Comparison of the Changes in Cytoplasmic Free Calcium Concentration Induced by Phenylephrine, Vasopressin, and Angiotensin II in Hepatocytes	Tetsuya Mine, Itaru Kojima, Satoshi Kimura, and Etsuro Ogata	107
Antibodies Prepared to <i>Bacillus cereus</i> Phospholipase C Cross-React with a Phosphatidylcholine Preferring Phospholipase C in Mammalian Cells	Mike A. Clark, Robert G. L. Shorr, and John S. Bomalaski	114
Calcium-Activated, Calmodulin-Dependent Protein Kinase Activity in Bovine Thyroid Cytosol	Yochanan Friedman, Lorraine Henricks, Thomas Poleck, Steven Levasseur, and Gerald Burke	120
Photoaffinity Labeling of a Thromboxane A ₂ /Prostaglandin H ₂ Antagonist Binding Site in Human Platelets	Dale E. Mais, Ronald M. Burch, John E. Oatis, Jr., Daniel R. Knapp, and Perry V. Halushka	128
Triiodothyronine (T ₃) Neogenesis in Lean and Obese LA/N-cp Rats	Orien L. Tulp and S. Thomas D. McKee	134
Phosphorylation of the Glycoprotein Hormone α -Subunit Secreted by Human Tumor Cell Lines	G. Stanley Cox	143
Serum-Mediated Enhancement of ANF Accumulation in the Culture Medium of Cardiac Atriocytes	Diana L. Sylvestre, Jerome B. Zisfein, Robert M. Graham, and Charles J. Homcy	151
Phorbol Esters Alter Muscarinic Receptor Binding and Inhibit Polyphosphoinositide Breakdown in Human Neuroblastoma (SH-SY5Y) Cells	Mariangela Serra, Thomas L. Smith, and Henry I. Yamamura	160
Establishment of a Human Pancreatic Adenocarcinoma Cell Line (PSN-1) with Amplifications of both <i>c-myc</i> and Activated <i>c-Ki-ras</i> by a Point Mutation	Hisashi Yamada, Teruhiko Yoshida, Hiromi Sakamoto, Masaaki Terada, and Takashi Sugimura	167
Identification of NGF Receptor in Chromatin of Melanoma Cells Using Monoclonal Antibody to Cell Surface NGF Receptor	Ewa M. Rakowicz-Szulczynska and Hilary Koprowski	174

Table of Contents

Hydroperoxide-Dependent Epoxidation of 3,4-Dihydroxy-3,4-dihydrobenzo[a]anthracene by Ram Seminal Vesicle Microsomes and by Hematin	181
<i>Thomas A. Dix, Joseph R. Buck, and Lawrence J. Marnett</i>	
Protein Phosphorylation in Peroxisomes	188
<i>Cetna Skorin, Ubaldo Soto, Cecilia Necochea, and Federico Leighton</i>	
Inhibition of Calcium Transients in Cultured Vascular Smooth Muscle Cells by Pertussis Toxin	195
<i>Hideo Kanaide, Takahiro Matsumoto, and Motoomi Nakamura</i>	
Evidence for an Association of a Ribonucleic Acid with the Purified, Unactivated Glucocorticoid Receptor	204
<i>Maria L. Webb, Thomas J. Schmidt, Noreen M. Robertson, and Gerald Litwack</i>	
Identification and Characterization of Mg^{2+} -Dependent Phosphotyrosyl Protein Phosphatase from Rat Liver Cytosol	212
<i>Shinri Tamura, Yoichi Suzuki, Kunimi Kikuchi, and Shigeru Tsuiki</i>	
Purification and Partial Characterization of Two Extracellular Endoglucanases from <i>Cellulomonas fermentans</i>	219
<i>Chantal Bagnara, Christian Gaudin, and Jean-Pierre Belaich</i>	
Tissue Distribution and Characterization of Peptide C-Terminal α -Amidating Activity in Rat	230
<i>Junichiro Sakata, Kensaku Mizuno, and Hisayuki Matsuo</i>	
Relationship between the Inhibition of Adenylate Cyclase by Pentobarbital and the Functional Coupling of N_5 and the Catalytic Unit	237
<i>Toshio Dan'ura, Tomonori Kurokawa, Atsushi Yamashita, Hidemi Yanagiuchi, and Sadahiko Ishibashi</i>	
Cyclic AMP Regulates the Life Time of Acetylcholine-Activated Channels in Cultured Myotubes	243
<i>Bianca M. Zani, Francesca Grassi, Mario Molinaro, Lucia Monaco, and Fabrizio Eusebi</i>	
Identification of Surface-Exposed Segments of Apolipoprotein B-100 in the LDL Particle	250
<i>Patricia Forgez, Harry Gregory, Janice A. Young, Timothy Knott, James Scott, and M. John Chapman</i>	
Fusion of Mammalian Cells in Culture Is Obtained by Creating the Contact between Cells after Their Electroporabilization	258
<i>J. Teissie and M. P. Rols</i>	
Lack of Direct Effect of 2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin (TCDD) on Protein Kinase C Activity in EL4 Cells	267
<i>Caroline M. Kramer, Julianne J. Sando, and Michael P. Holsapple</i>	
^{31}P -NMR Spectroscopy Demonstrates Decreased ATP Levels <i>in Vivo</i> as an Early Response to Photodynamic Therapy	273
<i>T. L. Ceckler, R. G. Bryant, D. P. Penney, S. L. Gibson, and R. Hilf</i>	
The Modulatory Role of Myosin Light Chain Phosphorylation in Human Platelet Activation	280
<i>Masahiro Saitoh, Michiko Naka, and Hiroyoshi Hidaka</i>	
The Selection of the First AUG as the Initiator of Eucaryotic mRNAs Translation Is Favored by a 5'-Terminal Cap Group and a Purine in the -3' Position	288
<i>Elzbieta Szczesna-Skorupa, David A. Mead, and Byron Kemper</i>	
Internalization and Metabolism of Endogenous Heparin by Cultured Endothelial Cells	294
<i>Simonetta Vannucchi, Franca Pasquali, Vincenzo Chiarugi, and Marco Ruggiero</i>	
Specific Receptors for Atriopeptin III in Rabbit Lung	302
<i>Gillian M. Olins, Dennis R. Patton, Foe S. Tjoeng, and Delores J. Blehm</i>	
Assembly of <i>Acanthamoeba</i> Actin in the Presence of <i>Acanthamoeba</i> Profilin Measured by Fluorescence Photobleaching Recovery	308
<i>Lindsay Plank and Bennie R. Ware</i>	
On the High Conservation of the Human <i>c-myc</i> First Exon	313
<i>Marihe E. Eladari, Saeed H. Syed, Stephane Guilhot, Luc d'Auriol, and Francis Galibert</i>	
Modulation of Calcineurin Phosphotyrosyl Protein Phosphatase Activity by Calmodulin and Protease Treatment	320
<i>Randall L. Kincaid, Todd M. Martensen, and Martha Vaughan</i>	
Separable Function of Platelet Release Reaction and Clot Retraction	329
<i>Yutaka Yatomi, Masaaki Higashihara, Akira Tanabe, Tatsuya Ohashi, Kyoya Takahata, Toshitsugu Kariya, and Shoji Kume</i>	

Degradation of Dynorphin-(1-13) and Dynorphin-(1-17) by the Neuroblastoma Cell Membrane: Evidence for the Involvement of a Cysteine Protease <i>Mitsuo Satoh, Hideyoshi Yokosawa, and Shin-ichi Ishii</i>	335
Molecular Mechanics Studies of Dermorphin <i>N. Pattabiraman, Keith R. Sorensen, Robert Langridge, Rajendra S. Bhatnagar, V. Renugopalakrishnan, and R. S. Rapaka</i>	342
Occurrence of Gal β (1 \rightarrow 3)GalNAc-Ser/Thr in the Linkage Region of Polygalactosamine Containing Fungal Glycoprotein from <i>Cordyceps ophioglossoides</i> <i>Noboru Kawaguchi, Toshihiro Ohmori, Yasuyoshi Takeshita, Gosei Kawanishi, Sumio Katayama, and Haruki Yamada</i>	350
Leucosulfakinin-II, a Blocked Sulfated Insect Neuropeptide with Homology to Cholecystokinin and Gastrin <i>Ronald J. Nachman, G. Mark Holman, Benjamin J. Cook, William F. Haddon, and Nicholas Ling</i>	357
Purification of a Hemolytic Factor from Ras Oncogene Transformed Fibroblasts <i>Janine Wieman, Stanley Zucker, Dean Wilkie, and Rita M. Lysik</i>	365
Structural Stability of Heterologous Genes Cloned in <i>Streptomyces</i> Plasmid pIJ702 <i>Yan-Hwa Wu Lee, Zee-Yuan Tzecheng, Shiang-Ching Wang, Wen-Ling Cheng, and Carton W. Chen</i>	372
Rapid Dephosphorylation of a M _r 80,000 Protein, a Specific Substrate of Protein Kinase C upon Removal of Phorbol Esters, Bombesin, and Vasopressin <i>Angeles Rodriguez-Pena, Ian Zachary, and Enrique Rozengurt</i>	379
Human Recombinant Interleukin 1-Mediated Suppression of Glycosaminoglycan Synthesis in Cultured Rat Costal Chondrocytes <i>Tetsuro Ikebe, Masato Hirata, and Toshitaka Koga</i>	386
Identification of the Human T-Lymphocyte Protein-Tyrosine Kinase by Peptide-Specific Antibodies <i>James M. Trevillyan, Cheral Canna, Derrick Maley, T. Juhani Linna, and Catherine A. Phillips</i>	392
Antibody to Human Lymphocyte Actin Regulates Immunoglobulin Secretion by an EBV-Transformed Human B-Cell Line <i>Howard M. Rosenblatt, Catherine G. Green, John E. McClure, and William T. Shearer</i>	399
The Glycoprotein Nature of A ₁ Adenosine Receptors <i>Karl-Norbert Klotz and Martin J. Lohse</i>	406
Heat Production as a Cell Cycle Monitoring Parameter <i>M. Yamamura, H. Hayatsu, and T. Miyamae</i>	414
Glycolysis and Lipid Synthesis in Brown Adipose Tissue during Aging in the Rat <i>Morag L. F. Simpson, Gregory J. Cooney, Ian E. Caterson, and Eric A. Newsholme</i>	419
Hypoxia-Induced Release of Atrial Natriuretic Factor (ANF) from the Isolated Rat and Rabbit Heart <i>Alex J. Baertschi, Claudia Hausmaninger, Robert S. Walsh, Robert M. Mentzer, Jr., David A. Wyatt, and Richard A. Pence</i>	427
Amphotericin B Renders Stationary Phase Hepatoma Cells Sensitive to Dipyrindamole <i>Yong-su Zhen, Melissa A. Reardon, and George Weber</i>	434
Regulation of Protein Phosphotyrosine Content by Changes in Tyrosine Kinase and Protein Phosphotyrosine Phosphatase Activities during Induced Granulocytic and Monocytic Differentiation of HL-60 Leukemia Cells <i>David A. Frank and Alan C. Sartorelli</i>	440
Tetrahydroisoquinoline and 1-Methyl-tetrahydroisoquinoline as Novel Endogenous Amines in Rat Brain <i>Michihiro Kohno, Shigeru Ohta, and Masaaki Hirobe</i>	448
Age-Related Differences in the Induction of 2-5A Synthetase and 2-5A Dependent Binding Protein Activities by Interferon in Guinea Pig Peritoneal Macrophages <i>Ching-Hua Wang and Joseph M. Wu</i>	455
A Derivative of Bisbenzylisoquinoline Alkaloid Is a New and Potential Calmodulin Antagonist <i>Youhan Xu and Suipo Zhang</i>	461
Detection of Active Oxygen in Rat Hepatocyte Suspensions with the Chemiluminogenic Probe Lucigenin <i>Regine Kahl, Andreas Weimann, and Alfred G. Hildebrandt</i>	468

Volume 140, Number 2, October 30, 1986

AUTHOR INDEX, Volume 140, Number 2, October 30, 1986	ii
Expression of <i>c-mos</i> Protooncogene in Undifferentiated Teratocarcinoma Cells <i>Yuko Ogiso, Midori Matsumoto, Takashi Morita, Hoyoku Nishino, Akio Iwashima, and Aizo Matsushiro</i>	477
The Human Placenta: A Novel Source of Inhibin <i>R. I. McLachlan, D. L. Healy, D. M. Robertson, H. G. Burger, and D. M. de Kretser</i>	485
A Lectin-Binding Immunoassay Indicates a Possible Glycosylated Growth Hormone in the Human Pituitary Gland <i>Y. N. Sinha and U. J. Lewis</i>	491
Inhibition of Reverse Transcriptase Activity by 2',3'-Dideoxythymidine 5'-Triphosphate and Its Derivatives Modified on the 3' Position <i>Katsuhiko Ono, Masako Ogasawara, Yukari Iwata, Hideo Nakane, Takeshi Fujii, Kazuhiko Sawai, and Mineo Saneyoshi</i>	498
Biosynthesis of Reovirus-Specified Polypeptides: Molecular cDNA Cloning and Nucleotide Sequence of the Reovirus Serotype 1 Lang Strain Bicistronic <i>s1</i> mRNA Which Encodes the Minor Capsid Polypeptide <i>σ1a</i> and the Nonstructural Polypeptide <i>σ1bNs</i> <i>Susan M. Munemitsu, Jonathan A. Atwater, and Charles E. Samuel</i>	508
Induced Rapid Phospholipid Methylation and Arachidonic Acid Release by Dimethyl Sulfoxide-Treated Human Promyelocytic Leukemic HL-60 Cells <i>Vincent A. Ziboh, Teresa Wong, Ming-Chi Wu, and Adel A. Yunis</i>	515
Definition of Two Distinct Mechanisms of Action of Antiestrogens on Human Breast Cancer Cell Proliferation Using Hydroxytriphenylethylenes with High Affinity for the Estrogen Receptor <i>Robert L. Sutherland, Colin K. W. Watts, and Peter C. Ruenitz</i>	523
<i>P</i> -450 _{11β} -Dependent Conversion of Androgen to Estrogen, the Aromatase Reaction <i>K. Suhara, K. Ohashi, K. Takeda, and M. Katagiri</i>	530
Identification of Insulin-like Growth Factor-II in Human Seminal and Follicular Fluids <i>K. Ramasharma, Claudia M. Cabrera, and Choh Hao Li</i>	536
Expression of the Fibrinogen Genes in Rat Megakaryocytes <i>Georges Uzan, Gilles Courtois, Zivojin Stanckovic, Gerald R. Crabtree, and Gérard Marguerie</i>	543
Combined Effects of Buserelin, Estradiol, and Tamoxifen on the Growth of MCF-7 Human Breast Cancer Cells <i>In Vitro</i> <i>J. A. Foekens, M. S. Henkelman, J. F. Fekkink, M. A. Blankenstein, and J. G. M. Klijn</i>	550
Production of Antibodies Recognizing a Hepatitis B Virus (HBV) Surface Antigen by Administration of Murabutide Associated to a Synthetic Pre-S HBV Peptide Conjugated to a Toxoid Carrier <i>Grzegorz Przewlocki, Françoise Audibert, Michel Jolivet, Louis Chedid, Stephen B. H. Kent, and A. Robert Neurath</i>	557
Solid Phase Synthesis of Somatostatin-28 II: A New Biologically Active Octacosapeptide from Anglerfish Pancreatic Islets <i>Pierre Nicolas, Antoine Delfour, Hamadi Boussetta, Alain Morel, Mohamed Rholam, and Paul Cohen</i>	565
Expression of <i>c-myc</i> Oncogene in Rat Liver by a Dietary Manipulation <i>Saburo Horikawa, Keiko Sakata, Masakazu Hatanaka, and Kinji Tsukada</i>	574
Developmental and Hormonal Regulation of the Major Form of Hepatic Glutathione S-Transferase in Male Mice <i>Ichiro Hatayama, Kimihiko Satoh, and Kiyomi Sato</i>	581
Evidence for Regulatory Control of Canine Platelet Phosphodiesterase <i>Mary K. Boudreaux, W. Jean Dodds, David O. Slauson, and James L. Catalfano</i>	589
Impaired cAMP Metabolism Associated with Abnormal Function of Thrombopathic Canine Platelets <i>Mary K. Boudreaux, W. Jean Dodds, David O. Slauson, and James L. Catalfano</i>	595
Effect of Vector Type, Host Strains, and Transcription Terminator on Heterologous Gene Expression in Yeast <i>Kong-Bung Choo, Sheue-Mei Wu, Li Hung, and Hsien-Hsiung Lee</i>	602
Tropylum Tetrafluoroborate, a Novel Substrate for Aldehyde Oxidase <i>R. Bruce Banks and Stewart D. Barnett</i>	609

Table of Contents

Insulin Release from a Cloned Hamster B-cell Line (HIT-T15): The Effects of Glucose, Amino Acids, Sulfonylureas, and Colchicine	<i>D. G. Lambert, K. Hughes, and T. W. Atkins</i>	616
DNA-Binding Characteristics of a Synthetic Analog of Distamycin	<i>Dipak Dasgupta, Malini Rajagopalan, and V. Sasisekharan</i>	626
Hepatic Microsomal Cholesterol Epoxide Hydrolase: Selective Inhibition by Detergents and Separation from Xenobiotic Epoxide Hydrolase	<i>Tadashi Watabe, Naoki Ozawa, Hiroaki Ishii, Koji Chiba, and Akira Hiratsuka</i>	632
120- and 80-kDa Detergent-Insoluble Glycoproteins as Markers of Differentiation and Adhesion in B16 Melanoma	<i>Manuel Rieber, Mary S. Rieber, Cecilia Urbina, and Renée Lira</i>	638
Bradykinin-Induced Changes in Inositol Trisphosphate Mass in MDCK Cells	<i>D. Portilla and A. R. Morrison</i>	644
Induction of Cytochrome P-450-Dependent Sulfonylurea Metabolism in <i>Streptomyces griseolus</i>	<i>James A. Romesser and Daniel P. O'Keefe</i>	650
Mu-Opioid Receptor Is Associated with Phosphatase Activity	<i>S. Roy, N. M. Lee, and H. H. Loh</i>	660
Poly (ADP-ribosyl)ation of DNA Polymerase β in Vitro	<i>Yasuhiro Ohasi, Asako Itaya, Yasuharu Tanaka, Koichiro Yoshihara, Tomoya Kamiya, and Akio Matsukage</i>	666
Insect Hypertrehalosemic Hormone: Isolation and Primary Structure from <i>Blaberus discoidalis</i> Cockroaches	<i>Timothy K. Hayes, Larry L. Keeley, and Dan W. Knight</i>	674
Taurine Protection against Experimental Arterial Calcinosi in Mice	<i>Keiko Yamauchi-Takihara, Junichi Azuma, and Susumu Kishimoto</i>	679
Sequence Homology of Group A Streptococcal Pep M5 Protein with Other Coiled-Coil Proteins	<i>Belur N. Manjula and Vincent A. Fischetti</i>	684
Postsynaptic Densities Contain a Subtype of Protein Kinase C	<i>Marlene Wolf, Susan Burgess, U. K. Misra, and Naji Sahyoun</i>	691
c-K-ras Codon 12 GGT-CGT Point Mutation: An Infrequent Event in Human Lung Cancer	<i>Antonio Milici, Mark Blick, Edwin Murphy, and Jordan U. Gutterman</i>	699
Altered Cellular Functions in a PC-12 Cell Clone Chronically Infected with Retrovirus	<i>John A. Bilello, Paul M. Hoffman, and Stephen R. Max</i>	706
Hyaluronic Acid Is an Endogenous Inducer of Interleukin-1 Production by Human Monocytes and Rabbit Macrophages	<i>Daisuke Hiro, Akira Ito, Kunio Matsuta, and Yo Mori</i>	715
An Altered Adenylate Cyclase in CDC35-1 Cell Division Cycle Mutant of Yeast	<i>Jose Sy and Youichi Tamai</i>	723
GTP and GDP Will Stimulate Platelet Cytosolic Phospholipase C Independently of Ca^{2+}	<i>Yoshiko Banno, Shigeru Nakashima, Toyohiko Tohmatsu, Yoshinori Nozawa, and Eduardo G. Lapetina</i>	728
Potent and Selective Anti-HTLV-III/LAV Activity of 2',3'-Dideoxycytidine, the 2',3'-Unsaturated Derivative of 2',3'-Dideoxycytidine	<i>Jan Balzarini, Rudi Pauwels, Piet Herdewijn, Erik De Clercq, David A. Cooney, Gil-Jong Kang, Maha Dalal, David G. Johns, and Samuel Broder</i>	735
Induction of the Tyrosine Phosphorylation of a 66-kDa Soluble Protein by DMSO in Human Peripheral Blood T Lymphocytes	<i>H. James Wedner and Gary Bass</i>	743
Wheat Germ Agglutinin Behaves as a GnRH Antagonist but Induces Gonadotrope Desensitization	<i>Iris Schwartz and Eli Hazum</i>	750
Localization of a Human Gene Homologous to the PrP Gene on the p Arm of Chromosome 20 and Detection of PrP-Related Antigens in Normal Human Brain	<i>Nikolaos K. Robakis, Evelyn A. Devine-Gage, Edmund C. Jenkins, Richard J. Kascsak, W. Ted Brown, Michael S. Krawczyn, and Wayne P. Silverman</i>	758
Induction of Microvillous Fusion and Pinching-Off by Concanavalin A	<i>Toshiaki Nishihata, Paul R. Burton, and Larry J. Caldwell</i>	766

Table of Contents

Conformational Flexibility of the Hormonal Peptide Bombesin and Its Interaction with Lipids	<i>P. Cavatorta, G. Farruggia, L. Masotti, G. Sartor, and A. G. Szabo</i>	99
Purification and Characterization of the Active Fragment from <i>Bacillus thuringiensis</i> Delta-Toxin	<i>Stefan Tyski, Yutaka Fujii, and Chun-Yen Lai</i>	106
Gene Reorganization during Serial Divisions of Normal Human Cells	<i>C. Icard-Liepkalns, J. Doly, and A. Macieira-Coelho</i>	112
Hexose Transport in Plasma Membrane Vesicles Prepared from L6 Rat Myoblasts	<i>O. Mesmer, M. O. Cheung, T. D'Amore, and T. C. Y. Lo</i>	124
Antigenic and Size Differences between Somatic and Testicular Cytochromes <i>c</i>	<i>In C. Kim and Carol L. K. Sabourin</i>	131
Two Forms of Phosphatidylinositol-Specific Phospholipase C from Bovine Brain	<i>Sung Ho Ryu, Key Seung Cho, Kee Young Lee, Pann-Ghill Suh, and Sue Goo Rhee</i>	137
The Molecular Basis of the Antiplatelet Action of Ajoene: Direct Interaction with the Fibrinogen Receptor	<i>Rafael Apitz-Castro, Eliades Ledezma, Javier Escalante, and Mahendra Kumar Jain</i>	145
Inhibition of the Binding of Low Density Lipoproteins to Liver Membrane Receptors by Rat Serum Phosphorylcholine Binding Protein	<i>Uday Saxena, Arun Nagpurkar, and Sailen Mookerjee</i>	151
The Relevance of Glycosaminoglycan Sulfates to Apo E-Induced Lipid Uptake by Hepatocyte Monolayers	<i>B. Oswald, F. Shelburne, B. Landis, A. Linker, and S. Quarfordt</i>	158
Entrapment of Phenylalanine Ammonia-Lyase in Silk Fibroin for Protection from Proteolytic Attack	<i>Shintaro Inoue, Yuji Matsunaga, Hiroaki Iwane, Mikio Sotomura, and Takashi Nose</i>	165
Reduction of Vanadate by a Microsomal Redox System	<i>Milind S. Patole, C. K. Ramakrishna Kurup, and T. Ramasarma</i>	171
Partial Purification and Characterization of Masking Protein for β -Type Transforming Growth Factor from Rat Platelets	<i>Toshikazu Nakamura, Toshiki Kitazawa, and Akira Ichihara</i>	176
Molecular Cloning and Nucleotide Sequence of the Lipase Gene from <i>Pseudomonas fragi</i>	<i>Wataru Kugimiya, Yasuo Otani, Yukio Hashimoto, and Yasuyuki Takagi</i>	185
Suppression of Triglyceride Secretion by Epinephrine in Isolated Rat Hepatocytes	<i>Nicholas P. J. Brindle and Joseph A. Ontko</i>	191
Evidence That Neomycin Inhibits HSV 1 Infection of BHK Cells	<i>Nina Langeland, Lars Haarr, and Holm Holmsen</i>	198
Pyrimidine Dimer-Dependent Cleavage of Single-Stranded DNA by T4 uv Endonuclease	<i>Walter Sauerbier</i>	204
Reassembly of <i>c-myc</i> and Relaxation of <i>c-fos</i> Nucleosomes during Differentiation of Human Leukemic (HL-60) Cells	<i>Robin H. Chow, Thelma A. Chen, Judy R. Churchill, Scott W. Thompson, and Koulin L. Chou</i>	213
Sodium Regulation of α_2 -Adrenoreceptors of Human Platelets: Inactivation by 4,4'-Diisothiocyano-2,2'-stilbene Disulfonic Acid (DIDS)	<i>S. M. Periyasamy and P. Somani</i>	222
Human Liver Glutathione <i>S</i> -Transferases: Complete Primary Sequence of an H_a Subunit cDNA	<i>Chen-Pei D. Tu and Biao Qian</i>	229
Oxidation of Cell Wall Polysaccharides by Hydrogen Peroxide: A Potential Mechanism for Cell Wall Breakdown in Plants	<i>A. Raymond Miller</i>	238
Xanthine Oxidase-Catalyzed DNA Binding of Dihydrodiol Derivatives of Nitropolycyclic Aromatic Hydrocarbons	<i>Kim K. Colvert and Peter P. Fu</i>	245
Purification of Vanadium-Binding Substance from the Blood Cells of the Tunicate, <i>Ascidia sydneiensis samea</i>	<i>H. Michibata, T. Miyamoto, and H. Sakurai</i>	251
Mouse Brain Contains a High-Molecular-Weight Nonfunctional Protein with Antigenic Homology to Dihydrofolate Reductase	<i>M. Perwaiz Iqbal, Sheldon P. Rothenberg, and Charles LaRosa</i>	258

Table of Contents

ADDENDUM

- Volume 138, Number 2, July 31, 1986: J. Kelly Bentley, David L. Garbers, Steven E. Domino, Thomas D. Nolan, and Cornelis Van Dop, "Spermatozoa Contain a Guanine Nucleotide-Binding Protein ADP-Ribosylated by Pertussis Toxin," pp. 728-734. 773

ERRATA

- Volume 134, Number 3, February 13, 1986: Daniel L. Alkon, Michinori Kubota, Joseph T. Neary, Shigetaka Naito, Douglas Coulter, and Howard Rasmussen, "C-Kinase Activation Prolongs Ca^{2+} -Dependent Inactivation of K^+ Currents," pp. 1245-1253. 774

- Volume 138, Number 1, July 16, 1986: Yasuaki Itoh, Takaki Hayakawa, and Yukio Fujisawa: "Expression of Hepatitis B Virus Surface Antigen P31 Gene in Yeast," pp. 268-274. 774

Volume 140, Number 3, November 14, 1986

- AUTHOR INDEX, Volume 140, Number 3, November 14, 1986 ii

- Lack of Excision of 4HAQO Adducts from DNA by Cell Extracts That Excise Pyrimidine Dimers *Gagan B. Panigrahi and Ian G. Walker* 775

- Ethanol-Enhanced Transmembrane Penetration of Arachidonic Acid and Activation of the 5-Lipoxygenase Pathway in Human Leukocytes *Floyd A. Green and Hans-Erik Claesson* 782

- Effects on Mitochondrial Metabolism of CCA, One Inducer of Neuroblastoma Differentiation *Jean-Luc Vayssiere, Jean-Christophe Larcher, Francis Berthelot, Caroline Benlot, François Gros, and Bernard Croizat* 789

- Effects of Anthrapyrazole Antineoplastic Agents on Lipid Peroxidation *Patricia Frank and Raymond F. Novak* 797

- A Use for Principal Coordinate Analysis in the Comparison of Protein Sequences *Kevin J. Woolley and Medha Athalye* 808

- Atrial Natriuretic Peptide Inhibits Protein Phosphorylation Stimulated by Angiotensin II in Bovine Adrenal Glomerulosa Cells *Mary E. Elliott and Theodore L. Goodfriend* 814

- Glucose Starvation Alters Insulin but Not IGF-I Binding to Chinese Hamster Ovary (CHO) Cells *Judith M. Podskalny, Dominique G. Rouiller, Aidan McElduff, and Phillip Gorden* 821

- A Novel Peptide in the Calcitonin Gene-Related Peptide Family as an Amyloid Fibril Protein in the Endocrine Pancreas *Per Westermark, Christer Wernstedt, Erik Wilander, and Knut Sletten* 827

- Arachidonate 5-Lipoxygenase Inhibitors Show Potent Antiproliferative Effects on Human Leukemia Cell Lines *Tetsuya Tsukada, Kunio Nakashima, and Shigeru Shirakawa* 832

- The Relationship between Epidermal Growth Factor Receptors and the Terminal Differentiation of A431 Carcinoma Cells *Ivan CL. King and Alan C. Sartorelli* 837

- Hexose Transport after Glucose Refeeding of Glucose-Starved Human Fibroblasts: 1. The Effects of Tunicamycin and Cycloheximide. 2. Insulin Binding and Action *Ralph J. Germinario and Alice Michaelidou* 844

- Insulin Receptor Autophosphorylation and Kinase Activity in Streptozotocin Diabetic Rats: Effect of a Short Fast *Roberto Gherzi, Gabriella Andraghetti, Eleuterio Ferrannini, and Renzo Cordera* 850

- Human Genetic Defect in Leukotriene C_4 Synthesis *C. R. Pace-Asciak, J. Klein, and S. P. Spielberg* 857

Phorbol Diester Synergistically Stimulates Agonist-Induced Lipoxygenase Product Formation in Murine Macrophages	<i>Howard E. Wey and C. Stuart Baxter</i>	861
Removal of Atrial Natriuretic Peptide by Perfused Rabbit Lungs <i>in Situ</i>	<i>Marina Turrin and C. Norman Gillis</i>	868
Amino Acid Sequence of Human Acidic Fibroblast Growth Factor	<i>Peter Gautschi-Sova, Thomas Müller, and Peter Böhlen</i>	874
The Effect of Extracellular Ca^{2+} and Temperature on the Induction of the Heat-Shock and Glucose-Regulated Proteins in Hamster Fibroblasts	<i>Kyu Seong Kim and Amy S. Lee</i>	881
Efficient Singlet Oxygen Inactivation of Firefly Luciferase	<i>Ambler Thompson, Janice Nigro, and Howard H. Seliger</i>	888
Geometry of Proline and Hydroxyproline I: An Analysis of X-ray Crystal Structure Data	<i>V. N. Balaji, M. Jagannatha Rao, Shashidhar N. Rao, Stephen W. Dietrich, and V. Sasisekharan</i>	895
Inhibition of Angiogenesis by the Antineoplastic Agents Mitoxantrone and Bisantrene	<i>Peter J. Polverini and Raymond F. Novak</i>	901
Appearance of Membrane-Bound Tyrosine Kinase during Differentiation of HL-60 Leukemia Cells by Immune Interferon and Tumor Necrosis Factor	<i>Robert I. Glazer, Mrunal S. Chapekar, Kathleen D. Hartman, and Marian C. Knode</i>	908
Structural Determination of a New Naturally Occurring Cyclic Vitamin K	<i>O. W. Howarth, E. Grund, R. M. Kroppenstedt, and M. D. Collins</i>	916
Detection of an Alcohol-Specific Product in Urine of Alcoholics	<i>B. K. Tang, P. Devenyi, D. Teller, and Y. Israel</i>	924
Inhibition of Serine Proteases by Benzoxazinones: Effects of Electron Withdrawal and 5-Substitution	<i>Robin W. Spencer, Leslie J. Copp, Bonnie Bonaventura, Tim F. Tam, T. J. Liak, Roland J. Billedeau, and Allen Krantz</i>	928
Determination of the Rate of Rapid pH Equilibration across Isolated Sacroplasmic Reticulum Membranes	<i>Kazuki Nunogaki and Michiki Kasai</i>	934
The Role of Guanyl Nucleotide Binding Proteins in the Formation of Inositol Phosphates in Adrenal Glomerulosa Cells	<i>Péter Enyedi, István Mucsi, László Hunyady, Kevin J. Catt, and András Spät</i>	941
Functional Antagonism between Type I and Type II Interferons on Human Macrophages	<i>Gianni Garotta, Kenneth W. Talmadge, J. Richard L. Pink, Beatrice Dewald, and Marco Baggiolini</i>	948
Metabolic Cooperation <i>in Vitro</i> : Differential Ability of Ouabain to Uncouple Normal, Pre-neoplastic, and Neoplastic Mouse Mammary Cells	<i>Fred R. Miller, Donna McInerney, and Bonnie E. Miller</i>	955
Picosecond Geminate Recombination of Nitrosylmyoglobins	<i>Karen A. Jongeward, James C. Marsters, Michael J. Mitchell, Douglas Magde, and Vijay S. Sharma</i>	962
Endoglycosidase F and Peptide N-Glycosidase F Release the Great Majority of Total Cellular N-Linked Oligosaccharides: Use in Demonstrating That Sulfated N-Linked Oligosaccharides Are Frequently Found in Cultured Cells	<i>Hudson H. Freeze and Ajit Varki</i>	967
Effects of Hyperglycemia on Sorbitol and myo-Inositol Content of Cultured Rat Conceptus: Failure of Aldose Reductase Inhibitors to Modify myo-Inositol Depletion and Dysmorphogenesis	<i>Moshe Hod, Sara Star, Janet V. Passonneau, Terry G. Unterman, and Norbert Freinkel</i>	974
Isolation and Sequence Analysis of a Full-Length cDNA for Human M Creatine Kinase	<i>M. Benjamin Perryman, Sandra A. Kerner, Teresa J. Bohlmeier, and Robert Roberts</i>	981
Synergistic Actions of Ca^{2+} and the Phorbol Ester TPA on K^{+} -Induced Catecholamine Release from Bovine Adrenal Chromaffin Cells	<i>Keith W. Brocklehurst and Harvey B. Pollard</i>	990

Accessibility of Cell Surface Thiols in Human Lymphocytes Is Altered by Ionophores or OKT-3 Antibody	<i>Margit Balázs, János Matkó, János Szöllösi, László Mátyus, Mack J. Fulwyler, and Sándor Damjanovich</i>	999
Analysis of the Cu, Fe, and Zn Contents in Cytochrome c Oxidases from Different Species and Tissues by Proton-Induced X-ray Emission (PIXE)	<i>E. Bombelka, F.-W. Richter, A. Stroh, and B. Kadenbach</i>	1007
Evidence for Direct Binding of <i>Clostridium botulinum</i> Type E Derivative Toxin and Its Fragments to Gangliosides and Free Fatty Acids	<i>Yohichi Kamata, Shunji Kozaki, Genji Sakaguchi, Masao Iwamori, and Yoshitaka Nagai</i>	1015
mRNA for the Three Human Alcohol Dehydrogenase Subunits: Size Heterogeneity and Developmental Changes	<i>T. Ikuta and A. Yoshida</i>	1020
Sodium-Dependent, Concentrative Nucleoside Transport in Cultured Intestinal Epithelial Cells	<i>Ewa S. Jakobs and Alan R. P. Paterson</i>	1028
The Extraction and Reconstitution of the α -Cyanocinnamate-Sensitive Pyruvate Transporter from Castor Bean Mitochondria	<i>Michael A. Brailsford, Andrew G. Thompson, Naheed Kaderbhai, and R. Brian Beechey</i>	1036
The Lipophilic Muramyltripeptide MTP-PE, a Biological Response Modifier, Is an Activator of Protein Kinase C	<i>Thomas Meyer, Dorian Fabbro, Urs Eppenberger, and Alex Matter</i>	1043
Calspectin (Fodrin or Nonerythroid Spectrin)-Actin Interaction: A Possible Involvement of 4.1-Related Protein	<i>Keiko Kanda, Toshihiko Tanaka, and Kenji Sobue</i>	1051
Galanin Inhibits Glucose-Stimulated Insulin Release by a Mechanism Involving Hyperpolarization and Lowering of Cytoplasmic Free Ca^{2+} Concentration	<i>Bo Åhrén, Per Arkhammar, Per-Olof Berggren, and Thomas Nilsson</i>	1059
The 14 α -Demethylation of Obtusifolioside by a Cytochrome P-450 Monooxygenase from Higher Plant Microsomes	<i>A. Rahier and M. Taton</i>	1064
CB 1954 (2,4-Dinitro-5-aziridinyl Benzamide) Becomes a DNA Interstrand Crosslinking Agent in Walker Tumor Cells	<i>John J. Roberts, Frank Friedlos, and Richard J. Knox</i>	1073
Inositol Phospholipid and Intracellular Calcium Metabolism in B Lymphocytes Stimulated with Antigen	<i>K. Partain, K. Jensen, and M. Aldo-Benson</i>	1079
Selenium-Induced Enhancement of Hematoporphyrin Derivative Phototoxicity in Murine Bladder Tumor Cells	<i>J. Tosk, B. H. S. Lau, R. C. Myers, and R. Torrey</i>	1086
V _{1a} Vasopressin-Induced Accumulation of Inositol Trisphosphate in Cultured Rat Aortic Myocytes: Modulation by Protein Kinase C	<i>Daniel Vittet, Philippe Berta, Marie-Noëlle Mathieu, Anne Rondot, Pierre Travo, Bernard Cantau, and Claude Chevillard</i>	1093
Cloning of the Lambda Resistant Genes from <i>Brevibacterium albidum</i> and <i>Proteus vulgaris</i> into <i>Escherichia coli</i>	<i>Keon Sang Chae and Ook Joon Yoo</i>	1101
Protein Kinase C Stimulation Increases the Transforming Ability of the Polyoma Virus Middle T Antigen	<i>Leda Raptis and James F. Whitfield</i>	1106
Identification of P-57, a Serine Proteinase, from Human Erythrocyte Membranes, Which Cleaves Both Chains of Human Third Component (C3) of Complement	<i>Christiane Charriaud-Marlangue, Monique Barel, and Raymond Frade</i>	1113
Activation of NADPH Oxidase and Phosphorylation of Membrane Proteins in Human Neutrophils: Coordinate Inhibition by a Surface Antigen-Directed Monoclonal Antibody	<i>S. Pontremoli, E. Melloni, F. Salamino, B. Sparatore, M. Michetti, O. Sacco, and B. L. Horecker</i>	1121
Characterization of Neuromedin U-like Immunoreactivity in Rat, Procine Guinea Pig, and Human Tissue Extracts Using a Specific Radioimmunoassay	<i>Jan Domin, Mohammad A. Ghatel, Pradeep Chohan, and Stephen R. Bloom</i>	1127
Reversible Self-Phosphorylation of Asparaginase Complex in <i>Leptosphaeria michotii</i> : Characterization of Associated Protein Kinase and Protein Phosphatase Activities	<i>Simonne Jerebzooff-Quintin and Stephan Jerebzooff</i>	1135

Table of Contents

Stereospecificity of Diacylglycerol for Stimulus-Response Coupling in Platelets <i>Hideaki Nomura, Katsuhiko Ase, Kazuo Sekiguchi, Ushio Kikkawa, Yasutomi Nichizuka, Yoshio Nakano, and Tadashi Satoh</i>	1143
---	------

ERRATUM

Volume 138, Number 3, August 14, 1986: Renzo Cordera, Roberto Gherzi, Roberto DePirro, Gabriella Andraghetti, Gary R. Freidenberg, Francesco Minuto, Renato Lauro, Giulio Giordano, and Luciano Adezati, "Insulin-like Growth Factor I (IGF I) Receptor Autophosphorylation and Kinase Activity: Effect of a Human Polyclonal Antibody (pIgG)," pp. 1023-1029	1152
Author Index for Volume 140	1160

Volume 141, Number 1, November 26, 1986

AUTHOR INDEX, Volume 141, Number 1, November 26, 1986	ii
The Effect of Benzodiazepines and β -Carbolines on GABA-Stimulated Chloride Influx by Membrane Vesicles from the Rat Cerebral Cortex <i>Takaaki Obata and Henry I. Yamamura</i>	1
Phosphorylation of the Mouse Hepatitis Virus Nucleocapsid Protein <i>Stanley M. Wilbur, Gary W. Nelson, Michael M. C. Lai, Minnie McMillan, and Stephen A. Stohman</i>	7
A Phorbol Ester and 1-Oleoyl-2-acetyl-glycerol Induce Na^+/H^+ Exchange in Human Platelets <i>Winfried Siffert and Peter Scheid</i>	13
Isolation and Characterization of a 34,000-Da Calmodulin- and F-Actin-Binding Protein from Chicken Gizzard Smooth Muscle <i>Katsuhito Takahashi, Kinio Hiwada, and Tatsuo Kokubu</i>	20
The Presence of Free D-Aspartic Acid in Rodents and Man <i>Amos Neidle, Denise McHale, D. Michael Dunlop, and Abel Lajtha</i>	27
Glycosylation Inhibitors Block the Expression of LAV/HTLV-III (HIV) Glycoproteins <i>H. A. Blough, R. Pauwels, E. De Clercq, J. Cogniaux, S. Sprecher-Goldberger, and L. Thiry</i>	33
Different Concentrations of Pertussis Toxin Have Opposite Effects on Agonist-Induced PGE_2 Formation in Mesangial Cells <i>Detlef Schlondorff, Joseph A. Satriano, and Susan DeCandido</i>	39
Differential Heat Shock Response of Primary Human Cell Cultures and Established Cell Lines <i>Werner W. Richter and Olaf-Georg Issinger</i>	46
Isolation of Human Liver Arginase cDNA and Demonstration of Nonhomology between the Two Human Arginase Genes <i>George J. Dizikes, Wayne W. Grody, and Stephen D. Cederbaum</i>	53
Monoclonal Antibody That Blocks Phosphoinositide-Dependent Activation of Mouse Tumor DNA Polymerase Alpha <i>V. L. Sylvia, J. O. Norman, G. M. Curtin, and D. L. Busbee</i>	60
Brain-Derived Growth Factor Is a Chemoattractant for Fibroblasts and Astroglial Cells <i>Robert M. Senior, Shuan S. Huang, Gail L. Griffin, and Jung S. Huang</i>	67
Hydration of Sodium Hyaluronate: NMR Study of an Oriented Sample <i>G. Lahajnar and A. Rupprecht</i>	73
The Effects of Chronic Administration of T_4 , Growth Hormone, and Epidermal Growth Factor on Hepatic Lipogenic Enzymes in Hypophysectomized Rats <i>Berenice Y. Reed and Richard L. Veech</i>	78
Identification of UPD-Galactose: Lactose (Lactosylceramide) α -4 and β -3 Galactosyltransferases in Human Kidney <i>Pascal Bailly, Friedrich Piller, Jean-Pierre Cartron, Yves Leroy, and Bernard Fournet</i>	84
Effect of Elastin Peptides on Human Monocytes: Ca^{2+} Mobilization, Stimulation of Respiratory Burst, and Enzyme Secretion <i>T. Fülöp, Jr., M. P. Jacob, Zs. Varga, G. Foris, A. Leövey, and L. Robert</i>	92

Biologically Active Domain in Somatomedin-Binding Protein <i>Marja-Liisa Huhtala, Riitta Koistinen, Pekka Palomäki, Paul Partanen, Hans Bohn, and Markku Seppälä</i>	263
Isolation of Murine Neuron-Specific and Nonneuronal Enolase cDNA Clones <i>Monique Lazar, Marguerite Lucas, Noël Lamandé, John G. Bishop, François Gros, and Lucienne Legault-Demare</i>	271
Evidence for Catalytic Site Cysteine and Histidine by Chemical Modification of β -Hydroxy- β -methylglutaryl-coenzyme A Reductase <i>Richard E. Dugan and Sarvagya S. Katiyar</i>	278
Recombinant Human Interleukin 1 Alpha and Beta Stimulate Mouse Osteoblast-like Cells (MC3T3-E1) to Produce Macrophage-Colony-Stimulating Activity and Prosta- glandin E ₂ <i>Kanji Sato, Yuko Fujii, Shigetaka Asano, Takemi Ohtsuki, Masanobu Kawakami, Keizo Kasono, Toshio Tsushima, and Kazuo Shizume</i>	285
The Permeability Property of the Outer Membrane of <i>Bacteroides fragilis</i> , a Strictly Anaerobic Opportunistic Pathogen <i>Yoriko Kobayashi and Taiji Nakae</i>	292
Induction of Cytochrome P-450c in Hematopoietic Cells of Fetal Liver <i>K. T. Shiverick, A. G. Kvello-Stenstrom, W. H. Donnelly, A. S. Salhab, J. A. Goldstein, and M. O. James</i>	299
Demonstration of Immunohistochemical and Immunochemical Cross-Reactivity of L-Histidine and L-DOPA Decarboxylases Using Antibodies against the Two Enzymes <i>Maya Ando-Yamamoto, Hideyuki Hayashi, Yoshitaka Taguchi, Hiroyuki Fukui, Takehiko Watanabe, and Hiroshi Wada</i>	306
Mitochondrial Malate Dehydrogenase and Its Precursor Have Different Conformations <i>Sin-Ming Chien and Karl B. Freeman</i>	313
Mitochondrial Component of the Phosphorylcreatine Shuttle Is Enhanced during Rat Heart Perinatal Development <i>Russell T. Dowell</i>	319
Characterization of Sites of Tyrosine Sulfation in Proteins and Criteria for Predicting Their Occurrence <i>Glen Hortin, Rodney Foltz, Jeffrey I. Gordon, and Arnold W. Strauss</i>	326
Evidence for the Presence of Functional β -Adrenoceptor along the Proximal Tubule of the Rat Kidney <i>William R. Jacobs and Yun L. Chan</i>	334
The Elevation of the Cytoplasmic Calcium Ions in Vascular Smooth Muscle Cells in SHR: Measurement of the Free Calcium Ions in Single Living Cells by Laser Micro- fluorospectrometry <i>Takao Sugiyama, Masao Yoshizumi, Fumimaro Takaku, Hisako Urabe, Motowo Tsukakoshi, Takahiro Kasuya, and Yoshio Yazaki</i>	340
A Unique Glycosphingolipid-Splitting Enzyme (Ceramide-Glycanase from Leech) Cleaves the Linkage between the Oligosaccharide and the Ceramide <i>Su-Chen Li, Rita DeGasperi, James E. Muldrey, and Yu-Teh Li</i>	346
GTP Regulation of Platelet-Activating Factor Binding to Human Neutrophil Membranes <i>David S. Ng and Kenneth Wong</i>	353
Inhibitory Effects of β_2 -Microglobulin on <i>in Vitro</i> Calcification of Osteoblastic Cells <i>H. Kataoka, F. Gejyo, S. Yamada, T. Kunitomo, and M. Arakawa</i>	360
Phospholipase c-Diglyceride Lipase Is a Major Pathway for Arachidonic Acid Release in Macrophages <i>Jorge Moscat, Carmen Herrero, Pedro Garcia-Barreno, and Angel M. Municio</i>	367
Genomic Clones of the Human Liver-Type Phosphofructokinase <i>D. Levanon, E. Danciger, N. Dafni, and Y. Groner</i>	374
An ESR Study of Lipid Peroxidation Process: Formation of Hydrogen Atoms and Hydroxyl Radicals <i>Keisuke Makino, Hiromasa Imaishi, Shuji Morinishi, Tamio Takeuchi, and Yuzo Fujita</i>	381
Cotranslational Attachment of Fatty Acids to Nascent Peptides in Gastric Mucus Glycoprotein <i>B. L. Slomiany, H. Tsukada, and A. Slomiany</i>	387
A Theoretical Model Simulating the Anomalous Concentration Dependence of the Equilibrium Thermal Unfolding Curve of Noncrosslinked Tropomyosin <i>Paul Duffy, Jeffrey Skolnick, and Alfred Holtzer</i>	394

Volume 141, Number 2, December 15, 1986

AUTHOR INDEX, Volume 141, Number 2, December 15, 1986	ii
Modulation by Phorbol Myristate Acetate of Arachidonic Acid Release and Leukotriene Synthesis by Human Polymorphonuclear Leukocytes Stimulated with A23187 <i>Shaun R. McColl, Nigel P. Hurst, and Leslie G. Cleland</i>	399
Induction of Cytochrome P-450 in <i>Streptomyces griseus</i> by Soybean Flour <i>F. Sima Sariaslani and Daniel A. Kunz</i>	405
Identification of a Novel $M_r = 76$ -kDa Form of β -Adrenergic Receptors <i>Suleiman W. Bahouth, Lucky K. Kelley, Carl H. Smith, Marty A. Arbabian, Arnold E. Ruoho, and Craig C. Malbon</i>	411
Calmodulin Inhibits Inositol Trisphosphate-Induced Ca^{2+} Mobilization from the Endoplasmic Reticulum of Islets <i>Bryan A. Wolf, Jerry R. Colca, and Michael L. McDaniel</i>	418
HSP 26 and 27 Are Phosphorylated in Response to Heat Shock and Ecdysterone in <i>Drosophila melanogaster</i> Cells <i>Emmanuelle Rollet and Martin Best-Belpomme</i>	426
Use of Double Spin-Labeled Histones to Monitor Histone-Chromatin Integration <i>Michael J. Barber, Walter Trudeau, and Paul Byvoet</i>	434
Pyrophosphate-Dependent Sucrose Metabolism and Its Activation by Fructose 2,6-Bisphosphate in Sucrose-Importing Plant Tissues <i>Dian-Peng Xu, Shi-Jean S. Sung, Carlos A. Alvarez, and Clanton C. Black</i>	440
Endothelium-Dependent Vascular Relaxation by Arginine-Containing Polypeptides <i>George Thomas, Radman Mostaghim, and Peter W. Ramwell</i>	446
Efficient Routing of Glucocerebrosidase to Lysosomes Requires Complex Oligosaccharide Chain Formation <i>J. M. F. G. Aerts, S. Brul, W. E. Donker-Koopman, S. van Weely, G. J. Murray, J. A. Barranger, J. M. Tager, and A. W. Schram</i>	452
Phosphorylation of the 47-kDa Protein in γ -Thrombin-Stimulated Human Platelets Does Not Activate Phospholipase A_2 : Evidence against Lipocortin <i>Michael F. Crouch and Eduardo G. Lapetina</i>	459
Uptake of Thiamin by Isolated Rat Liver Mitochondria <i>Maria Barile, Salvatore Passarella, and Ernesto Quagliariello</i>	466
Cloning of a <i>Drosophila</i> cDNA Encoding a Polypeptide Similar to the Human Insulin Receptor Precursor <i>Yasuyoshi Nishida, Mami Hata, Yasuaki Nishizuka, William J. Rutter, and Yousuke Ebina</i>	474
Cachectin/TNF as well as Interleukin-1 Induces Prostacyclin Synthesis in Cultured Vascular Endothelial Cells <i>Masanobu Kawakami, Shun Ishibashi, Hiroko Ogawa, Toshio Murase, Fumimaro Takaku, and Seichi Shibata</i>	482
Induction of 2-Carboxybenzaldehyde Reductase by Phenobarbital in Primary Culture of Rat Hepatocytes <i>Masaharu Hirata, Kanya Tonda, and Junko Higaki</i>	488
Phorbol Ester Causes Short-Term and Transient Accumulation of Pteridines in T Cells and in Cell Lines <i>J. Seidl, M. Borchert, and I. Ziegler</i>	494
Receptor-Mediated Photocytotoxicity: Synthesis of a Photoactivatable Psoralen Derivative Conjugated to Insulin <i>F. P. Gasparro, R. M. Knobler, S. S. Yemul, E. Bisaccia, and R. L. Edelson</i>	502
Expression of the Protooncogenes C-H-Ras and N-ras in Early Second-Trimester Human Fetal Tissues <i>Homa Mellersh, Alastair J. Strain, and David J. Hill</i>	510
Primary Structure of the Activation Segment of Procarboxypeptidase A from Porcine Pancreas <i>J. Vendrell, F. X. Avilés, E. Genescà, B. San Segundo, F. Soriano, and E. Méndez</i>	517
Meylin Basic Protein Inhibits Formyl-Peptide-Induced Chemotaxis in Human Neutrophils <i>Tiziana Bellini, Franco Dallochio, Diana Degani, Susanna Spisani, Riccardo Gavioli, and Serena Traniello</i>	524
Characterization of Two Heme Oxygenase Isoforms in Rat Spleen: Comparison with the Hematin-Induced and Constitutive Isoforms of the Liver <i>P. E. Braggins, G. M. Trakshel, R. K. Kutty, and M. D. Maines</i>	528

Modulation of Rat Polymorphonuclear Leukocyte 5-Lipoxygenase Activity by 5-HPETE and NADH-Dependent Flavin Inhibition	<i>Denis Riendeau and Yves Leblanc</i>	534
Interaction between Actin and HMM	<i>Julian Borejdo and Marco Giordano</i>	541
Phosphorylation of Lipocortins <i>in Vitro</i> by Protein Kinase C	<i>Navin C. Khanna, Masaaki Tokuda, and David M. Waisman</i>	547
2', 5'-Phosphodiesterase Activity Depends upon the Presence of a 3'-Hydroxyl Moiety in the Pénultimate Position of the Oligonucleotide Substrate	<i>David Alster, Danuta Brozda, Yukio Kitade, Alice Wong, Ramamurthy Charubala, Wolfgang Pfeleiderer, and Paul F. Torrence</i>	555
On the Structure and Linkage of the Covalent Cofactor of Methylamine Dehydrogenase from the Methylotrophic Bacterium W3A1	<i>William S. McIntire and John T. Stults</i>	562
Carbamylcholine, TRH, PGF _{2α} and Fluoride Enhance Free Intracellular Ca ²⁺ and Ca ²⁺ Translocation in Dog Thyroid Cells	<i>Eric Raspé, Pierre P. Roger, and Jacques E. Dumont</i>	569
Inhibition of Ferredoxin: NADP ⁺ Reductase Activity by the Hexacyanochromate(III) Ion	<i>Fraser A. Armstrong and Simon G. Corbett</i>	578
Hematoporphyrin Derivative (Photofrin II) Photosensitization of Isolated Mitochondria: Impairment of Anion Translocation	<i>Anna Atlante, Giuliana Moreno, Salvatore Passarella, and Christian Salet</i>	584
Point-Mutated P21 ^{ras} Couples a Muscarinic Receptor to Calcium Channels and Polyphosphoinositide Hydrolysis	<i>Vincenzo P. Chiarugi, Franca Pasquali, Simonetta Vannucchi, and Marco Ruggiero</i>	591
Decreased Content of Docosahexaenoate and Arachidonate in Plasma Phospholipids in Usher's Syndrome	<i>Nicolas G. Bazan, Burton L. Scott, T. S. Reddy, and Mary Z. Pelias</i>	600
Characterization of Ca ²⁺ -Activated, Phospholipid-Dependent Protein Kinase C/Protein Kinase M in Guinea Pig Peritoneal Exudate Macrophages	<i>Rosa Toper and Edgar Pick</i>	605
A Search for Oxygen-Centered Free Radicals in the Lipoxygenase/Linoleic Acid System	<i>Henry D. Connor, Volker Fischer, and Ronald P. Mason</i>	614
[¹⁷ O]Oxygen Hyperfine Structure for the Hydroxyl and Superoxide Radical Adducts of the Spin Traps DMPO, PBN, and 4-POBN	<i>Carolyn Mottley, Henry D. Connor, and Ronald P. Mason</i>	622
Growth Inhibitory Effects of 5-Aza-2'-deoxycytidine in HL-60 Promyelocytic Leukemia Cells Resistant to Differentiation Induction	<i>Albert Leyva, Gilberto Schwartzmann, Leonie C. M. Boeijs, Herbert M. Pinedo, and Frans de Waal</i>	629
Agents Inducing High Mg ²⁺ -ATPase Activity of Isolated Coupling Factor 1 from Spinach Chloroplasts	<i>Birgitta Norling, Gabriella Kelemen, and Lars Ernster</i>	636
Mode of Interaction and Apparent Binding Constants of meso-Tetraaryl Porphyrins Bearing between One and Four Positive Charges with DNA	<i>M. A. Sari, J. P. Battioni, D. Mansuy, and J. B. Le Pecq</i>	643
Thrombin Receptor Occupancy Initiates Cell Proliferation in the Presence of Phorbol Myristate Acetate	<i>Eric A. Gordon and Darrell H. Carney</i>	650
Stimulation of Phosphatidylinositol Turnover by Concanavalin A Is Not Sufficient to Activate Mouse Thymocytes	<i>Alan J. Feister and Harvey J. Sage</i>	657
Synthesis and Biological Properties of Antiparallel and Parallel Dimers of α-Human Atrial Natriuretic Peptide	<i>Naoyoshi Chino, Kumiko Yoshizawa-Kumagaye, Yuko Noda, Takushi X. Watanabe, Terutoshi Kimura, and Shumpei Sakakibara</i>	665
Reversible Shape Change in Platelets Is Regulated by Phosphatidylinositol Metabolism	<i>D. P. Dimitrov and F. R. Bühler</i>	673
The Two Binding Sites for DCMU in Photosystem II	<i>Ban-Dar Hsu, Jee-Yau Lee, and Rong-Long Pan</i>	682

Table of Contents

Stabilization and Partial Characterization of Endothelium-Derived Relaxing Factor from Cultured Bovine Aortic Endothelial Cells	John J. Murray, Irwin Fridovich, Raymond G. Makhoul, and Per-Otto Hagen	689
<i>In Vitro</i> Translation of Mushroom Tyrosinase	Gopi K. Podila and William H. Flurkey	697
Primary Action of <i>Clostridium perfringens</i> Type A Enterotoxin on HeLa and Vero Cells in the Absence of Extracellular Calcium: Rapid and Characteristic Changes in Membrane Permeability	Morihiro Matsuda, Kunihiro Ozutsumi, Hiromi Iwahashi, and Nakaba Sugimoto	704
Purification and NH ₂ -Terminal Sequence of Cytochrome P-450 from Kidney Microsomes of Untreated Male Rats	Susumu Imaoka and Yoshihiko Funae	711
Synthesis of <i>N</i> -Chlorosulfonyl Dicyclohexylamine as a Potent Inhibitor for Spermidine Synthase and Its Effects on Human Leukemia Molt4B Cells	Kunio Nakashima, Tetsuya Tsukada, Hiroshige Hibasami, and Satoru Maekawa	718
1,2-Dibromoethane Causes Rat Hepatic DNA Damage at Low Doses	Kirk T. Kitchin and Janice L. Brown	723
Evidence That Rabbit Cytochrome P-450 K Is Encoded by the Plasmid pP-450 PBc2	Malcolm J. Finlayson, Byron Kemper, Nancy Browne, and Eric F. Johnson	728
Two K-Regions of 5-Methylchrysene Are Sites of Oxidative Metabolism	Ziping Bao and Shen K. Yang	734
The Lossen Rearrangement in Biological Systems: Inactivation of Leukocyte Elastase and α -Chymotrypsin by (DL)-3-Benzyl- <i>N</i> -(methanesulfonyloxy) Succinimide	W. C. Groutas, P. K. Giri, J. P. Crowley, J. C. Castrisos, and M. J. Brubaker	741
Temperature Dependence of Length of Elastin and Its Polypentapeptide	Dan U. Urry, Bryant Haynes, and R. Dean Harris	749
Purification of Larvicidal Protein from <i>Bacillus sphaericus</i> 1593	M. Lakshmi Narasu and K. P. Gopinathan	756
Degrading Activity for Human Parathyroid Hormone [PTH-(1-84)] in the Rat Osteoblastlike Osteosarcoma Cell Line UMR106	Toru Yamaguchi, Hisamitsu Baba, Masaaki Fukase, Yoshikazu Kinoshita, Tadao Fujimi, and Takuo Fujita	762
Protein Kinase C Activity in Platelets from Spontaneously Hypertensive Rats (SHR) and Normotensive Wistar Kyoto Rats (WKY)	Kazuo Takaori, Satoko Itoh, Yoshiharu Kanayama, and Tadanao Takeda	769
Amino Acid Sequence of a Hypertrehalosemic Neuropeptide from the Corpus Cardiacum of the Cockroach, <i>Nauphoeta cinerea</i>	Gerd Gäde and Kenneth L. Rinehart, Jr.	774
<i>In Vitro</i> Formation of Amyloid Fibrils from Two Synthetic Peptides of Different Lengths Homologous to Alzheimer's Disease β -Protein	Eduardo M. Castaño, Jorge Ghiso, Frances Prelli, Peter D. Gorevic, Antonio Migheli, and Blas Frangione	782
Self-Assembly of Microtubule-Associated Protein Tau into Filaments Resembling Those Found in Alzheimer's Disease	Esteban Montejo de Garcini, Luis Serrano, and Jesús Avila	790
Molecular Cloning of the Structural Gene for <i>Acinetobacter</i> Citrate Synthase	Lynda J. Donald and Harry W. Duckworth	797
Expression of Human Interleukin-2 Receptor cDNA in <i>E. coli</i>	Pranab K. Chanda, Gia-Fen T. Chen, Yaela Baine, Warren J. Leonard, Warner C. Greene, Tse Wen Chang, and Nancy T. Chang	804
Effect of Insulin on Glucagon Binding to Isolated Rat Epididymal Adipocytes	Kiyoshi Hashizume and Keishi Yamauchi	812
Tumor Necrosis Factor-Induced Alterations in Circulating Leukocyte Populations	Daniel G. Remick, James Larrick, and Steven L. Kunkel	818
Catabolism of Pentachlorophenol by a <i>Flavobacterium</i> sp.	J. G. Steiert and R. L. Crawford	825

Table of Contents

Enhancer Binding Proteins Predicted by an Informational Spectrum Method <i>Irena Ćosić, Dobrila Nešić, Mirjana Pavlović, and Roger Williams</i>	831
Solubilization and Characteristics of the Thyroid NADPH-Dependent H ₂ O ₂ -Generating System <i>Corinne Dupuy, Alain Virion, Nefissa Ait Hammou, Jacques Kaniewski, Danièle Deme, and Jacques Pommier</i>	839
4-Thiouridine-Photosensitized RNA-Protein Crosslinking in Mammalian Cells <i>A. Favre, G. Moreno, M. O. Blondel, J. Kliber, F. Vinzens, and C. Salet</i>	847
Rapid Modulation of Tumor Necrosis Factor Membrane Receptors by Activators of Protein Kinase C <i>Peter Scheurich, Rainer Unglaub, Beate Maxeiner, Bettina Thoma, Gerhard Zugmaier, and Klaus Pfizenmaier</i>	855
Possible Involvement of Germ Cells in the Regulation of Estradiol-17 β and ABP Secretion by Immature Rat Sertoli Cells: <i>In Vitro</i> Studies <i>B. Le Magueresse and B. Jégou</i>	861
Chlorate—A Potent Inhibitor of Protein Sulfation in Intact Cells <i>Patrick A. Baeuerle and Wieland B. Huttner</i>	870
Close Association between Clathrin and the Hydrophobic Domain of Boundary Membranes in Brain Endocytic Vesicles <i>Mariel Pallini and John Bramhall</i>	878
ERRATUM	
Volume 141, Number 1, November 26, 1986: Stanley M. Wilbur, Gary W. Nelson, Michael M. C. Lai, Minnie McMillan, and Stephen A. Stohlman, "Phosphorylation of the Mouse Hepatitis Virus Nucleocapsid Protein," pp. 7-12	884
Volume 141, Number 3, December 30, 1986	
AUTHOR INDEX, Volume 141, Number 3, December 30, 1986	ii
Estrogenic Activity of Phenol Red in Rat Anterior Pituitary Cells in Culture <i>Jean-François Hubert, Annick Vincent, and Fernand Labrie</i>	885
Stereoselective Product Inhibition of Glutathione S-Transferase <i>Wen-Jian Chen, P. C. deSmidt, and Richard N. Armstrong</i>	892
Degradation of Glomerular Basement Membrane by a Neutral Metalloproteinase(s) Present in Glomeruli Isolated from Normal Rat Kidney <i>Hung H. Nguyen, William H. Baricos, and Sudhir V. Shah</i>	898
Expression of IL-1 Genes in Human and Bovine Chondrocytes: A Mechanism for Autocrine Control of Cartilage Matrix Degradation <i>Felicia Ollivierre, Ueli Gubler, Christine A. Towle, Cato Laurencin, and Benjamin V. Treadwell</i>	904
Spontaneous Lipid Bilayer Transmembrane Electrical Oscillations Induced by Concanavalin A-Polysaccharide Interaction <i>Ulrich J. Krull and Michael Thompson</i>	912
Demethylation of Bacterial Chemoreceptors Is Inhibited by Attractant Stimuli in the Complete Absence of the Regulatory Domain of the Demethylating Enzyme <i>Alain Borczuk, Ariane Staub, and Jeff Stock</i>	918
Expression of the Macrophage-Specific Colony-Stimulating Factor (CSF-1) during Human Monocytic Differentiation <i>Junko Horiguchi, M. Kim Warren, Peter Ralph, and Donald Kufe</i>	924
Anomer Specificity of Glucose-6-phosphatase and Glucokinase <i>Eisuke Furuya, Kikuko Hotta, and Kunio Tagawa</i>	931
Effect of Removal of the Cytolytic Factor of <i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> on Mosquito Toxicity <i>Gary A. Held, Yuan-Shen Huang, and C. Y. Kawanishi</i>	937

Table of Contents

Synthesis in Yeast of Hepatitis B Virus Surface Antigen-Modified P31 Particles by Gene Modification	<i>Yasuaki Itoh and Yukio Fujisawa</i>	942
Clearance of Acute-Phase Plasma Proteins with No, High-Mannose-, Hybrid-, or Complex-Type Oligosaccharide Side Chains by the Isolated Perfused Rat Liver	<i>Klaus Steube, Volker Gross, Dieter Häussinger, Thuy-Anh Tran-Thi, Karl Decker, Wolfgang Gerok, and Peter C. Heinrich</i>	949
The <i>mdr1</i> Gene, Responsible for Multidrug Resistance, Codes for P-Glycoprotein	<i>Kazumitsu Ueda, Marilyn M. Cornwell, Michael M. Gottesman, Ira Pastan, Igor B. Roninson, Victor Ling, and John R. Riordan</i>	956
Precipitation of the D-Galactose-Specific Lectin from <i>Erythrina indica</i> by a Triantennary Complex-Type Oligosaccharide	<i>Lokesh Bhattacharyya and C. Fred Brewer</i>	963
Bovine Angiotensin-Converting Enzyme: Amino-Terminal Sequence Analysis and Preliminary Characterization of a Hybridization-Selected Primary Translation Product	<i>Daret K. St. Clair, Kathleen A. Presper, Peter L. Smith, David C. Stump, and Edward C. Heath</i>	968
Trypsin Induced Destabilization of Liposomes Composed of Dioleoylphosphatidylethanolamine and Glycophorin	<i>Lan-rong Hu, Rodney J. Y. Ho, and Leaf Huang</i>	973
Intestinal Basolateral Membrane Ca-ATPase Activity with Properties Distinct from Those of the Ca-Pump	<i>Thomas C. Moy, Julian R. F. Walters, and Milton M. Weiser</i>	979
Regulation of the <i>nah</i> and <i>sal</i> Operons of Plasmid NAH7: Evidence for a New Function in <i>nahR</i>	<i>I.-S. You and I. C. Gunsalus</i>	986
Purification and Characterization of Glyoxalase I from <i>Pseudomonas putida</i>	<i>Hae-ik Rhee, Kousaku Murata, and Akira Kimura</i>	993
Role of Pertussis Toxin-Sensitive G Proteins in the α_1 -Adrenergic Receptor but Not in the Thyrotropin Receptor-Mediated Activation of Membrane Phospholipases and Iodide Fluxes in FRTL-5 Thyroid Cells	<i>Daniela Corda and Leonard D. Kohn</i>	1000
Absolute Configuration of the Hydroxyeicosatetraenoic Acids (HETEs) Formed during Catalytic Oxygenation of Arachidonic Acid by Microsomal Cytochrome P-450	<i>Jorge Capdevila, Pendri Yadagiri, Sukumar Manna, and J. R. Falck</i>	1007
Human Tissue Fibronectin: Expression of Different Isotypes in the Adult and Fetal Tissues	<i>Kiyotoshi Sekiguchi, Anthony M. Klos, Setsuo Hirohashi, and Sen-itiroh Hakomori</i>	1012
<i>In Vivo</i> Expression of a Nonselected Gene Transferred into Murine Hematopoietic Stem Cells by Electroporation	<i>R. Narayanan, M. M. Jastreboff, C. F. Chiu, and J. R. Bertino</i>	1018
Actions of LH/hCG on Accumulation and Catabolism of Progestins in Cultured Rat Granulosa Cells	<i>Young S. Moon, Antoni J. Duleba, and Basil Ho Yuen</i>	1025
Low-Spin Sulfite Reductases: A New Homologous Group of Non-heme Iron-Siroheme Proteins in Anaerobic Bacteria	<i>I. Moura, A. R. Lino, J. J. G. Moura, A. V. Xavier, G. Fauque, H. D. Peck, Jr., and J. LeGall</i>	1032
Multiple Molecular Forms of Interferon Display Different Specific Activities in the Induction of the Antiviral State and 2',5'-Oligoadenylate Synthetase	<i>M. K. Chelbi-Alix and M. N. Thang</i>	1042
Oxalyl Thiolesters and N-Oxalylcysteine Are Normal Mammalian Metabolites	<i>Stephen S. Skorczynski and Gordon A. Hamilton</i>	1051
High Sensitivity Mass Spectrometric Determination of Peptides: Direct Analysis of Aqueous Solutions	<i>Richard M. Caprioli and Terry Fan</i>	1058
Enhancement of <i>cmyc</i> mRNA Concentration in Dog Thyrocytes Initiating DNA Synthesis in Response to Thyrotropin, Forskolin, Epidermal Growth Factor, and Phorbol Myristate Ester	<i>S. Reuse, P. P. Roger, G. Vassart, and J. E. Dumont</i>	1066
Identification of Calmodulin Activity in Purified Retroviruses	<i>Mark G. Lewis, Jason Y. Chang, Richard G. Olsen, and Richard H. Fertel</i>	1077
Structure of a Peptide from Coho Salmon Endocrine Pancreas with Homology to Neuropeptide Y	<i>J. R. Kimmel, E. M. Plisetskaya, H. G. Pollock, J. W. Hamilton, J. B. Rouse, K. E. Ebner, and A. B. Rawitch</i>	1084

Table of Contents

Changes in the Plasma Membrane ATPase Activity in Relationship to Cell Proliferation in <i>Dictyostelium</i>	<i>Benilde Jiménez, Margarita Fernandez-Renart, and Angel Pestaña</i>	1092
Molecular Cloning and Expression in <i>Streptomyces lividans</i> of a Proteinous α -Amylase Inhibitor (Haim II) Gene from <i>Streptomyces griseosporus</i>	<i>Shin Saito, Hideo Takahashi, Hiuga Saito, Motoo Arai, and Sawao Murao</i>	1099
Absence of Xanthine Oxidase or Xanthine Dehydrogenase in the Rabbit Myocardium	<i>Cyril M. Grum, Richard A. Ragsdale, Loren H. Ketai, and Marshal Shlafer</i>	1104
Characterization of Rodent Epidermal Growth Factor Receptor Transcripts Using a Mouse Genomic Probe	<i>Mien-Chie Hung, Karol L. Thompson, Ing-Ming Chiu, and Marsha Rich Rosner</i>	1109
Molecular Cloning of the Chicken Nerve Growth Factor Gene: mRNA Distribution in Developing and Adult Tissues	<i>Michel Goedert</i>	1116
Hydroperoxide-Induced Radical Production in Liver Mitochondria	<i>Christopher H. Kennedy, William A. Pryor, Gary W. Winston, and Daniel F. Church</i>	1123
Potassium Depolarization Markedly Enhances Muscarinic Receptor-Stimulated Inositol Tetrakisphosphate Accumulation in Rat Cerebral Cortical Slices	<i>John G. Baird and Stefan R. Nahorski</i>	1130
Inhibition of <i>E. coli</i> Adenylate Cyclase Activity by Inorganic Orthophosphate Is Dependent on III ^{glc} of the Phosphoenolpyruvate:Glycose Phosphotransferase System	<i>Ellen Liberman, David Saffen, Saul Roseman, and Alan Peterkofsky</i>	1138
Localization of Enzyme for Heme Attachment to Apocytochrome c in Yeast Mitochondria	<i>Shin Enosawa and Akira Ohashi</i>	1145
Changes of Membrane Fluidity in Chemotactic Peptide-Stimulated Polymorphonuclear Leukocytes	<i>Matteo Valentino, Mario Governa, Rosamaria Fiorini, and Giovana Curatola</i>	1151
The Antilipolytic Effect of Insulin in Human Adipocytes Requires Activation of the Phosphodiesterase	<i>P. Lönnroth and U. Smith</i>	1157
Maintenance of Autonomous Genetic Elements in Twelve Transgenic Mouse Strains Established after Transfer of pPyLT1 DNA	<i>Pierre Léopold, Joëlle Vailly, François Cuzin, and Minoo Rassoulzadegan</i>	1162
Differential Inhibition of Rat and Human Glutathione S-Transferase Isoenzymes by Plant Phenols	<i>M. Das, S. V. Singh, H. Mukhtar, and Y. C. Awasthi</i>	1170
β -1,3-Glucan Receptor and Peptidoglycan Receptor Are Present as Separate Entities within Insect Prophenoloxidase-Activating System	<i>Hideya Yoshida, Masanori Ochiai, and Masaaki Ashida</i>	1177
Chromosomal Localization of the Gene for a Human Galactosyltransferase (GT-1)	<i>Alessandra M. V. Duncan, Maureen M. McCorquodale, Clive Morgan, Thomas J. Rutherford, Hubert E. Appert, and D. James McCorquodale</i>	1185
Renal γ -Glutamyl Transpeptidases: Influence of Glycosylation on the Electrophoretic Behavior and Molecular Weights of Their Subunits	<i>Suresh S. Tate and Vijay Khadse</i>	1189
Glucose 6-Phosphate Plays a Central Role in the Activation of Glycogen Synthase by Glucose in Hepatocytes	<i>Carlos J. Ciudad, Assumpta Carabaza, and Joan J. Guinovart</i>	1195
Effects of Oral Glucose Administration on Preproinsulin mRNA in Rats <i>in Vivo</i>	<i>H. Fukumoto, Y. Seino, G. Koh, J. Takeda, K. Tsuji, T. Kurose, N. Kitano, K. Tsuda, T. Taminato, and H. Imura</i>	1201
Relative Spectral Response as a Function of Sequential Ligand Binding	<i>David W. Deerfield II, Randal A. Hoke, Lee G. Pedersen, Tom Darden, and Richard G. Hiskey</i>	1207
Differences in Phospholipid Incorporation of ³² P Relevant to α_1 -Receptor Coupling Events in Rat and Rabbit Aorta	<i>Michael D. Campbell, N. Raju Danthuluri, and Richard C. Deth</i>	1213
Biosynthesis of Porcine Kidney D-Amino Acid Oxidase	<i>Kiyoshi Fukui, Kyoko Momoi, Fusao Watanabe, and Yoshihiro Miyake</i>	1222

Table of Contents

PDGF-like Growth Factor Induces EGF-Potentiated Phenotypic Transformation of Normal Rat Kidney Cells in the Absence of TGF β	<i>Everardus J. J. van Zoelen, Theodora M. J. van Oostwaard, and Siegfried W. de Laat</i>	1229
Influence of 1,25-Hydroxyvitamin D ₃ on Cytosolic Free Calcium Concentrations	<i>Sara Bar, Cobi Lidor, Arie Harell, and Samuel Edelstein</i>	1236
Expression of <i>Agrobacterium tumefaciens</i> T-DNA Gene 7 in <i>Xenopus laevis</i> Oocytes	<i>Joan C. McPherson and Robert Kingsbury</i>	1242
Induction of Phagelike Particles from a Pathogenic Strain of <i>Vibrio parahaemolyticus</i> by Mitomycin C	<i>Takeo Ohnishi and Keiichi Nozu</i>	1249
Tumor Cell Biotransformation Products of Prostaglandin A ₁ with Growth Inhibitory Activity	<i>E. Gouin, B. Vulliez-Le Normand, A. Couyette, V. Heidet, N. Nagel, and F. Dray</i>	1254
Thyroglobulin Gene Activation by Thyrotropin and cAMP in Hormonally Depleted FRTL-5 Thyroid Cells	<i>Elisabeth Bone, Leonard D. Kohn, and Piotr Chomczynski</i>	1261
NMR Studies of Flexible Opiate Conformations at Monoclonal Antibody Binding Sites. I. Transferred Nuclear Overhauser Effects Show Bound Conformations	<i>Jay A. Glasel and Philip N. Borer</i>	1267
Lectin Interactions with the Variant Surface Glycoprotein from <i>Trypanosoma brucei brucei</i> Incorporated into Liposomes	<i>Brigitte Schmitz and Roger A. Klein</i>	1274
Acute Effects of α -MSH on the Rat Zona Glomerulosa <i>in Vivo</i>	<i>G. G. Nussdorfer, G. Mazzocchi, and L. K. Malendowicz</i>	1279
Author Index for Volume 141		1285

CUMULATIVE TABLE OF CONTENTS
FOR VOLUMES 134-141

Volume 134, Number 1, January 14, 1986

AUTHOR INDEX, Volume 134, Number 1, January 14, 1986	ii
Inactivation of the Early Calcium Uptake and Noradrenaline Release Evoked by Potassium in Cultured Chromaffin Cells <i>Cristina R. Artalejo, Marie-France Bader, Dominique Aunis, and Antonio G. García</i>	1
Osmotic Activation of the Na ⁺ /H ⁺ Antiport in Protein Kinase C-Depleted Lymphocytes <i>Sergio Grinstein, Esther Mack, and Gordon B. Mills</i>	8
β -Endorphin Is Present in Active and Inactive Forms in Rat Gastric Antrum <i>G. L. Rosenquist, K. Maruthinar, and D. G. Smyth</i>	14
Expression in <i>Escherichia coli</i> of Functional Precursor to the Rat Liver Mitochondrial Enzyme, Ornithine Carbamyl Transferase. Precursor Import and Processing in Vitro <i>William P. Sheffield, Mai Nguyen, and Gordon C. Shore</i>	21
Reversible Inhibition of Intercellular Junctional Communication by Glycyrrhetic Acid <i>James S. Davidson, Ingrid M. Baumgarten, and Eric H. Harley</i>	29
In Vitro Translation of Intestinal Sucrase-Isomaltase and Glucoamylase <i>D. H. Alpers, D. Helms, S. Seetharam, V. L. May, and A. W. Strauss</i>	37
Physiological Action and Receptor Binding of a Newly Synthesized and Novel Antigluccorticoid <i>G. Lazar and M. K. Agarwal</i>	44
Nucleotide Sequence of Chick 14K β -Galactoside-Binding Lectin mRNA <i>Yuji Ohyama, Jun Hirabayashi, Yuko Oda, Shigeo Ohno, Hiroshi Kawasaki, Koichi Suzuki, and Ken-ichi Kasai</i>	51
Synthesis and Secretion of α_2 -Macroglobulin by Human Lung Fibroblasts <i>Werner Budek, Maria-Lucia Danailov, Peter Bünning, and Ernst-Günter Afting</i>	57
Tropomyosin's End-to-End Polymerization Is Irreversibly Lost on Exposure to Urea or Cyanate <i>Philip Graceffa and Sherwin S. Lehrer</i>	64
Human Renin: A New Class of Inhibitors <i>J. G. Dann, D. K. Stammers, C. J. Harris, R. J. Arrowsmith, D. E. Davies, G. W. Hardy, and J. A. Morton</i>	71
Synthetic Myelin Basic Protein Peptide Analogs Are Specific Inhibitors of Phospholipid/Calcium-Dependent Protein Kinase (Protein Kinase C) <i>Huai-De Su, Bruce E. Kemp, R. Scott Turner, and J. F. Kuo</i>	78
Conversion of Leukotrienes A ₄ to C ₄ in Cell-free Systems <i>Chung Wu</i>	85
Inhibition of the Catalytic Subunit of Phosphorylase Phosphatase by Oxalyl Thioesters and Its Possible Relevance to the Mechanism of Insulin Action <i>Sandra Gunshore and Gordon A. Hamilton</i>	93
Regioselective Glutathione Conjugation of the Carcinogen, 7,12-Dihydroxymethylbenz[a]anthracene, via Reactive 7-Hydroxymethyl Sulfate Ester in Rat Liver Cytosol <i>Tadashi Watabe, Akira Hiratsuka, and Kenichiro Ogura</i>	100
The Outer Membrane of <i>Pseudomonas aeruginosa</i> Is a Barrier against the Penetration of Disaccharides <i>Hiroshi Yoneyama, Akira Akatsuka, and Taiji Nakae</i>	106
Phosphorylation and Inactivation of Rat Hepatocyte Glycogen Synthase by Phorbol Esters and Mezerein <i>Joaquín Ariño and Joan J. Guinovart</i>	113
Madin-Darby Canine Kidney Cells Display Type I and Type II Insulin-like Growth Factor (IGF) Receptors <i>Nancy L. Krett, Joanne H. Heaton, and Thomas D. Gelehrter</i>	120
The 5'-Flanking Sequences of Human Globin Genes Contribute to Tissue Specific Expression <i>C. Michael Fordis, Nancy Nelson, Mary McCormick, Raji Padmanabhan, Bruce Howard, and Alan N. Schechter</i>	128

Table of Contents

Coordinate Actions of Arachidonic Acid and Protein Kinase C in Gonadotropin-Releasing Hormone-Stimulated Secretion of Luteinizing Hormone	John P. Chang, Janelle Graeter, and Kevin J. Catt	134
Detection by High-Pressure Infrared Spectrometry of Hydrogen-Bonding between Water and Triacetyl Glycerol	Ernest C. Mushayakarara, Patrick T. T. Wong, and Henry H. Mantsch	140
Selection of a Rat Glutamine Synthetase cDNA Clone	Douglas M. Burns, Basant Bhandari, Jay M. Short, Peter G. Sanders, Richard H. Wilson, and Richard E. Miller	146
Antioxidants in Plasma from Mice Infected with <i>Plasmodium vinckei</i>	Roland Stocker, Nicholas H. Hunt, and Maurice J. Weidemann	152
The Receptor Binding Properties of the 20K Variant of Human Growth Hormone Explain Its Discrepant Insulin-like and Growth Promoting Activities	Jean Smal, Jean Closset, Georges Hennen, and Pierre De Meyts	159
Heat Shock Stress Initiates Simultaneous Transcriptional and Translational Changes in the Dog Heart	Yiu Kay Lai, Pamela A. Havre, and Graeme L. Hammond	166
Guanine Nucleotide-Induced Positive Cooperativity in Muscarinic-Cholinergic Antagonist Binding	José Luis Boyer, Miguel Martínez-Cárcamo, J. Antonio Monroy-Sánchez, Carlos Posadas, and J. Adolfo García-Sáinz	172
Atrial Natriuretic Polypeptide in Atria and Plasma in Experimental Hyperthyroidism and Hypothyroidism	M. Kohno, K. Takaori, T. Matsuura, K. Murakawa, Y. Kanayama, and T. Takeda	178
An Endogenous Brain Substance, CDS (Clonidine-Displacing Substance), Inhibits the Twitch Response of Rat <i>Vas Deferens</i>	Sophia Diamant and Daphne Atlas	184
Expression of a New β Tubulin Subunit Is Induced by 20-Hydroxyecdysone in <i>Drosophila</i> -Cultured Cells	M. L. Sobrier, J. L. Couderc, S. Chapel, and B. Dastugue	191
A DNA Glycosylase for Oxidized Thymine Residues in <i>Drosophila melanogaster</i>	Lars H. Breimer	201
<i>In Vitro</i> Synthesis of a Lipid-Linked Acetylated and Pyruvylated Oligosaccharide in <i>Rhizobium trifolii</i>	Juan Carlos Bossio, Nora Iñon de Iannino, and Marcelo A. Dankert	205
Calmodulin-like Protein from <i>Bacillus subtilis</i>	Ilona J. Fry, Leah Villa, Glenn D. Kuehn, and James H. Hageman	212
A Role for the Cytoskeleton in Renal Vitamin D Metabolism	Jonathan L. Taft and Richard G. Larkins	218
Metabolic Consequences of DNA Damage: DNA Damage Induces Alterations in Glucose Metabolism by Activation of Poly(ADP-Ribose) Polymerase	Sosamma J. Berger, Donna C. Sudar, and Nathan A. Berger	227
Kinetic Analysis of Chloride Efflux from Normal and Cystic Fibrosis Fibroblasts	Michela Rugolo, Giovanni Romeo, and Giorgio Lenaz	233
Nonmuscle Myosin Phosphorylation Sites for Calcium-Dependent and Calcium-Independent Protein Kinases	Tommy C. Hassell, Bruce E. Kemp, and Ruthann A. Masaracchia	240
Homology between the Subunits of S100 and a 10kDa Polypeptide Associated with p36 of Pig Lymphocytes	J. Mark Hexham, Nicholas F. Totry, Michael D. Waterfield, and Michael J. Crumpton	248
Demonstration That Corticotropin-Releasing Factor Binding to Rat Peripheral Tissues Is Modulated by Glucocorticoid Treatment <i>in Vivo</i> and <i>in Vitro</i>	Jitendra R. Dave and Robert L. Eskay	255
Evidence for an Antagonist Specific Receptor That Does Not Bind Mineralocorticoid Agonists	G. Lazar and M. K. Agarwal	261
6'-O-Dansyl- γ -aminobutyryl Atractyloside, a Fluorescent Probe of the ADP/ATP Carrier. Exploration of Conformational Changes of the Membrane-Bound ADP/ATP Carrier Elicited by Substrates and Inhibitors	François Boulay, Gérard Brandolin, and Pierre V. Vignais	266

Effects of Trypsin and Calcium Chloride on Signal II _s in Oxygen-Evolving PS II Preparations	<i>Gopinath Mavankal, Douglas C. McCain, and Terry M. Bricker</i>	272
ANF-like Peptide(s) in the Peripheral Autonomic Nervous System	<i>Waldemar Debinski, Jolanta Gutkowska, Otto Kuchel, Karoly Racz, Nguyen T. Buu, Marc Cantin, and Jacques Genest</i>	279
A Method for Determining the Intracellular Distribution of Enzymes in Yeast Provides No Evidence for the Association of Hexokinase with Mitochondria	<i>Ladislav Kovác, B. Dean Nelson, and Lars Ernster</i>	285
Stimulation of Pyruvate Kinase Phosphatase Activity by Insulin in Isolated Rat Hepatocytes	<i>L. López-Alarcón, M. Mojena, L. Monge, and J. E. Feliu</i>	292
Bradykinin Stimulates Increased Intracellular Calcium in Papillary Collecting Tubules of the Rabbit	<i>James A. Shayman, Keith A. Hruska, and Aubrey R. Morrison</i>	299
Coactivation of Protein Kinase C and NADPH Oxidase in the Plasma Membrane of Neutrophil Cytoplasts	<i>Renato Gennaro, Chiara Florio, and Domenico Romeo</i>	305
Myelin Basic Protein Ability to Organize Lipid Bilayers: Structural Transition in Bilayers of Lisophosphatidylcholine Micelles	<i>P. Riccio, L. Masotti, P. Cavatorta, A. De Santis, D. Juretic, A. Bobba, I. Pasquali-Ronchetti, and E. Quagliariello</i>	313
α -Latrotoxin of the Black Widow Spider Venom Opens a Small, Nonclosing Cation Channel	<i>E. Wanke, A. Ferroni, P. Gattanini, and J. Meldolesi</i>	320
Biochemical Characterization of the Na ⁺ /K ⁺ /Cl ⁻ Cotransport in Chick Cardiac Cells	<i>Christian Frelin, Olivier Chassande, and Michel Lazdunski</i>	326
HPLC Purification of the Natural ATPase Inhibitor from the Yeast <i>Candida utilis</i>	<i>Anne-Christine Dianoux</i>	332
Transcription But Not Translation Is Required for EDTA-Induced Autolysis in <i>Escherichia coli</i>	<i>Killi S. N. Prasad and Sanjay N. Chitnis</i>	338
A Macrophage Factor That Stimulates the Proliferation of Vascular Endothelial Cells	<i>Tetsuro Okabe and Fumimaro Takaku</i>	344
Characterization of D-myo-Inositol 1,4,5-Triphosphate Phosphatase in Rat Brain	<i>C. Erneux, A. Delvaux, C. Moreau, and J. E. Dumont</i>	351
Affinity Modification of Creatine Kinase and ATP-ADP Translocase in Heart Mitochondria: Determination of Their Molar Stoichiometry	<i>A. V. Kuznetsov and V. A. Saks</i>	359
Intracellular Ca ²⁺ Requirements for Zymosan-Stimulated Phosphoinositide Hydrolysis in Mouse Peritoneal Macrophages	<i>J. Moscat, M. Aracil, E. Diez, J. Balsinde, P. Garcia Barreno, and A. M. Municio</i>	367
Sequence Homology between the Coat Proteins of DNA and RNA Plant Viruses	<i>J. K. Mohana Rao</i>	372
Cationic Amphiphilic Drugs Perturb the Metabolism of Inositides and Phosphatidic Acid in Photoreceptor Membranes	<i>Lucio A. A. Van Rooijen and Nicolas G. Bazan</i>	378
Phenyl- <i>n</i> -butylborinic Acid Is a Potent Transition State Analog Inhibitor of Lipolytic Enzymes	<i>Larry D. Sutton, Jay S. Stout, Lynn Hosie, Patricia S. Spencer, and Daniel M. Quinn</i>	386
Fluorescence Probing of the Function-Specific Cysteines of Rat Microsomal NADPH-Cytochrome P-450 Reductase	<i>Jung Ja Lee and Laurence S. Kaminsky</i>	393
Synthesis of Colony-Stimulating Factor (CSF) and Differentiation-Inducing Factor (D-Factor) by Osteoblastic Cells, Clone MC3T3-E1	<i>Yoshiko Shiina-Ishimi, Etsuko Abe, Hirofumi Tanaka, and Tatsuo Suda</i>	400
<i>In Vitro</i> Method of Assembling a Synthetic Gene	<i>S. A. Narang, G. Dubuc, F. L. Yao, and J. J. Michniewicz</i>	407
Phytohemagglutinin (PHA)-Activated Human T-Lymphocytes: Concomitant Appearance of Insulin Binding, Degradation, and Insulin-Mediated Activation of Pyruvate Dehydrogenase (PDH)	<i>Cynthia K. Buffington, Thanaa El-Shiekh, Abbas E. Kitabchi, and Robert Matteri</i>	412
A Rapid, Sensitive Mass Spectrometric Method for Investigating Microscale Chemical Reactions of Surface-Adsorbed Peptides and Proteins	<i>B. T. Chait and F. H. Field</i>	420

Table of Contents

Insulin-like Growth Factors (IGF I and IGF II) Mimic the Effect of Insulin on Plasma Protein Synthesis and Glycogen Deposition in Cultured Hepatocytes	
<i>Joan Lee Parkes, Robert R. Cardell, and Gerd Grieninger</i>	427
Cyclic AMP Suppresses Expression of <i>v-ras</i> ^H Oncogene Linked to the Mouse Mammary Tumor Virus Promoter	
<i>N. Najam, T. Clair, R. H. Bassin, and Y. S. Cho-Chung</i>	436
Cyclo(His-Pro), a Metabolite of Thyrotropin-Releasing Hormone: Specific Binding to Rat Liver Membranes	
<i>M. Mori, M. Yamada, M. Yamaguchi, M. Suzuki, K. Ohshima, I. Kobayashi, and S. Kobayashi</i>	443

ERRATUM

Volume 131, Number 3, September 30, 1985: Jean-Francois Cloix, Maryse Crabos, Irving W. Wainer, Urs Ruegg, Max Seiler, and Philippe Meyer, "High Yield-Purification of a Urinary Na ⁺ -Pump Inhibitor," pp. 1234-1240.	452
---	-----

Volume 134, Number 2, January 29, 1986

AUTHOR INDEX, Volume 134, Number 2, January 29, 1986	iii
External ATP Permeabilizes Transformed Cells to Macromolecules	
<i>María Jesús Otero and Luis Carrasco</i>	453
Phosphorylation of Microsome-Bound Cytochrome P-450 LM ₂	
<i>W. Pyerin, M. Marx, and H. Taniguchi</i>	461
Role of mRNA 5'-Terminal Caps in Translational Dormancy of <i>Physarum polycephalum</i>	
<i>Susan R. Halsell and William R. Jeffery</i>	469
Chromosomal Assignment of Human Genes for Gastrin, Thyrotropin (TSH)- β Subunit, and C- <i>erbB</i> -2 by Chromosome Sorting Combined with Velocity Sedimentation and Southern Hybridization	
<i>Shinichi Fukushima, Tomoaki Murotsu, and Kenichi Matsubara</i>	477
Modulation of Glycogen Metabolism in Cerebromicrovascular Smooth Muscle and Endothelial Cultures	
<i>Maria Spatz, Bogomir B. Mrsulja, Barbara Wroblewska, Nancy Merkel, and Joliet Bembry</i>	484
Evidence That Glutathione Participates in the Induction of a Stress Protein	
<i>Keith R. Shelton, Patsy M. Egle, and Jeanne M. Todd</i>	492
Isolation and Characterization of a Novel Cytochrome P-450-like Pseudogene	
<i>Peter G. Zaphiropoulos, William R. Folk, and Minor J. Coon</i>	499
Kinetics of Ribulosebisphosphate Carboxylase at High Protein Concentration	
<i>Christian Paech</i>	506
A Simultaneous Quantitation of Leukotriene B ₄ and Its ω -Oxidized Products by Gas Chromatography-Mass Spectrometry	
<i>Takashi Izumi, Takao Shimizu, Takeshi Kasama, Yousuke Seyama, Hideki Sumimoto, Koichiro Takeshige, Shigeki Minakami, Anders Wetterholm, and Olof Rådmark</i>	512
Evidence of Binary Complex Formations between Cytochrome P-450, Cytochrome b ₅ , and NADPH-Cytochrome P-450 Reductase of Hepatic Microsomes	
<i>Paul P. Tamburini, Seonaid MacFarquhar, and John B. Schenkman</i>	519
Intracellular Localization of ATP:AMP Phosphotransferase in <i>Escherichia coli</i>	
<i>Kimiko Watanabe, Hisae Fukumoto, and Koichiro Isoi</i>	527
Tyrosine Kinase Activity of Brain Insulin and IGF-1 Receptors	
<i>William L. Lowe, Jr., and Derek LeRoith</i>	532
Effect of an Interleukin-1-like Factor (Mononuclear Cell Factor) on Proteoglycan Synthesis in Cultured Human Articular Chondrocytes	
<i>J. Bocquet, M. Daireaux, M. Langris, V. Jouis, J.-P. Pujol, R. Beliard, and G. Loyau</i>	539
Activities of Antioxidant Enzymes in Muscle, Liver, and Lung of Chickens with Inherited Muscular Dystrophy	
<i>Michael E. Murphy and James P. Kehrer</i>	550

Purification to Homogeneity of Aromatase from Human Placenta <i>Shizuo Nakajin, Masato Shinoda, and Peter F. Hall</i>	704
Recovery of Transferrin Receptors on Hepatocytes Membrane after Collagenase Perfusion <i>T. Kishimoto and M. Tavassoli</i>	711
Identification of the v-rel Protein in REV-T-Transformed Chicken Bone Marrow Cells and Expression in Cosl Cells <i>Kenneth Garson and C. Yong Kang</i>	716
Sequence Analyses of Adipokinetic Hormones II from Corpora Cardiaca of <i>Schistocerca nitans</i> , <i>Schistocerca gregaria</i> , and <i>Locusta migratoria</i> by Fast Atom Bombardment Mass Spectrometry <i>Gerd Gäde, Graham J. Goldsworthy, Martin H. Schaffer, J. Carter Cook, and Kenneth L. Rinehart, Jr.</i>	723
Calcium Transport by Ionophorous Peptides in Dog and Human Lymphocytes Detected by Quin-2 Fluorescence <i>Charles M. Deber and Lynn C. Hsu</i>	731
p60 ^{c-src} Activity Detected in the Chromaffin Granule Membrane <i>Sarah J. Parsons and Carl E. Creutz</i>	736
Uptake of the Neurotoxin 1-Methyl-4-phenylpyridine (MPP ⁺) by Mitochondria and Its Relation to the Inhibition of the Mitochondrial Oxidation of NAD ⁺ -Linked Substrates by MPP <i>Rona R. Ramsay, James I. Salach, and Thomas P. Singer</i>	743
Activation of Tyrosine Hydroxylase by Ca ²⁺ -Dependent Neutral Protease, Calpain <i>Akifumi Togari, Shinichi Ichikawa, and Toshiharu Nagatsu</i>	749
Two Types of Growth Inhibitor in Rat Platelets for Primary Cultured Rat Hepatocytes <i>Toshikazu Nakamura, Hideo Teramoto, Yumiko Tomita, and Akira Ichihara</i>	755
Glycosylation Abolishes an <i>in Vitro</i> Insulin-like Action of Prolactin <i>L. G. Frigeri, L. J. Lewis, K. Teguh, and U. J. Lewis</i>	764
Conversion of Angiotensin 1 to Angiotensin 2 by a Latent Endothelial Cell Peptidyl Dipeptidase That Is Not Angiotensin-Converting Enzyme <i>Joseph J. Lanzillo, Yamuna Dasarathy, Joanne Stevens, and Barry L. Fanburg</i>	770
Catalysis of Singlet Oxygen Production in the Reaction of Hydrogen Peroxide and Hypochlorous Acid by 1,4-Diazabicyclo[2.2.2]octane (DABCO) <i>Jeffrey R. Kanofsky</i>	777
Binding of a High Reactive Heparin to Human Apolipoprotein E: Identification of Two Heparin-Binding Domains <i>Alan D. Cardin, Nobuyoshi Hirose, Dale T. Blankenship, Richard L. Jackson, Judith A. K. Harmony, Doris A. Sparrow, and James T. Sparrow</i>	783
A Signal Sequence Is Required for the Functions of the Signal Recognition Particle <i>Martin Wiedmann, Antje Huht, and Tom A. Rapoport</i>	790
Modulation of Reconstituted Cholesterol 7 α -Hydroxylase by Phosphatase and Protein Kinase <i>P. M. Tang and J. Y. L. Chiang</i>	797
Molecular Cloning of Rat Mitochondrial Glutamic Oxaloacetic Transaminase mRNA and Regulation of Its Expression in Regenerating Liver <i>Yoshiyuki Horio, Ryuzo Sakakibara, Tatsuya Tanaka, Masato Taketoshi, Kenshi Obaru, Kazunori Shimada, Yoshimasa Morino, and Hiroshi Wada</i>	803
Transcriptional and Post-transcriptional Roles of Glucocorticoid in the Expression of the Rat 25,000 Molecular Weight Casein Gene <i>Piotr Chomczynski, Pradman Qasba, and Yale J. Topper</i>	812
Supported Phospholipid Bilayers for Two-Dimensional Protein Crystallization <i>E. E. Uzgir</i>	819
Na ⁺ /H ⁺ Exchange Is Present in Basolateral Membranes from Rabbit Small Intestine <i>Francisco Barros, Pedro Domínguez, Gloria Velasco, and Pedro S. Lazo</i>	827
Evidence for Direct Repression of Nitrogenase by Ammonia in the Cyanobacterium <i>Anabaena cylindrica</i> <i>Alison H. Mackerras and Geoffrey D. Smith</i>	835
Inhibitory Effects of Theophylline and Dibutyryl cAMP on Murine Erythroleukemia Cell Differentiation <i>Matthew L. Sherman, Timothy D. Shafman, and Donald W. Kufe</i>	845

Table of Contents

Atrial Natriuretic Factor and cGMP Inhibit Amiloride-Sensitive Na^+ Transport in the Cultured Renal Epithelial Cell Line, LLC-PK ₁	<i>Horacio F. Cantiello and Dennis A. Ausiello</i>	852
Gonadotropin-Releasing Hormone Enhances Polyphosphoinositide Hydrolysis in Rat Pituitary Cells	<i>Ludwig Kiesel, Karin Bertges, Thomas Rabe, and Benno Runnebaum</i>	861
Reversal by Protein Kinase C Inhibitor of Suppressive Actions of Phorbol-12-myristate-13-acetate on Polyphosphoinositide Metabolism and Cytosolic Ca^{2+} Mobilization in Thrombin-Stimulated Human Platelets	<i>Teyohiko Tohmatsu, Hiroaki Hattori, Seiji Nagao, Kazuo Ohki, and Yoshinori Nozawa</i>	868
Phosphoinositide Phosphorylation Precedes Growth in Rat Mammary Tumors	<i>Yoav Sharoni, Iris Teuerstein, and Joseph Levy</i>	876
Stereoselective Intramolecular Cyclization in Irradiated Nucleic Acids: R- and S-8,5'-Cycloadenosine in Polyadenylic Acid	<i>A. F. Fuciarelli, F. Y. Shum, and J. A. Raleigh</i>	883
Specific Inhibition of Post Proline Cleaving Enzyme by Benzyloxycarbonyl-Gly-Pro-diazomethyl Ketone	<i>Herbert Knisatschek and Karl Bauer</i>	888
Characterization of [^3H]Pentagastrin Binding in Guinea Pig Gastric Glands: An Alternative Convenient Ligand for Receptor-Binding Assay	<i>Raymond S. L. Chang, Victor J. Lotti, Maureen E. Keegan, and Kristie A. Kunkel</i>	895
Effects of Procaine on Hypoxia-Induced Abnormalities in Canine Myocardial Tissues	<i>Mohit L. Bhattacharyya and S. Acharya</i>	900
Computer-Aided, Systematic Search of Peptide Conformations Constrained by NMR Data	<i>Graham M. Smith and Daniel F. Veber</i>	907
Purification of SV40 T- Antigen by SV40 DNA-Sepharose Affinity Chromatography	<i>B. Milavetz, T. Hopkins-Davis, and C. Payne</i>	915
Synthesis of Carboxynifedipine and Its Use in the Preparation of an Affinity Resin for the 1,4-Dihydropyridine Receptor	<i>Clare J. Biswas and Terry B. Rogers</i>	922
GTP-Activated GTP-Binding Proteins (Gs) in Membranes Achieved by Hormone plus GDP Does Not Serve as a Substrate for ADP-Ribosylation by Cholera Toxin	<i>Narimichi Kimura and Nobuko Shimada</i>	928
ApoE Deficiency: Markedly Decreased Levels of Cellular ApoE mRNA	<i>J. Michael Anchors, Richard E. Gregg, Simon W. Law, and H. Bryan Brewer, Jr.</i>	937
Influence of Dietary Zinc Deficiency and Parenteral Zinc on Rat Liver Fructose 1,6-Bisphosphatase Activity	<i>Lisa A. Cowen, Dean E. Bell, James E. Hoadely, and Robert J. Cousins</i>	944
Physicochemical, Immunochemical, and Functional Comparison of Human S-Protein and Vitronectin: Evidence for the Identity of Both Plasma Proteins	<i>Klaus T. Preissner, Norbert Heimburger, Elisabeth Anders, and Gert Müller-Berghaus</i>	951
<i>In Vitro</i> Interactions between Sertoli Cells and Steroidogenic Cells	<i>M. H. Perrard-Sapori, P. Chatelain, P. Vallier, and J. M. Saez</i>	957
Detection of a Novel Lymphocyte Protein-Tyrosine Kinase by Renaturation in Polyacrylamide Gels	<i>Robert L. Geahlen and Marietta L. Harrison</i>	963
Phorbol Esters Inhibit α_1 -Adrenergic Receptor-Stimulated Phosphoinositide Hydrolysis and Contraction in Rat Aorta: Evidence for a Link between Vascular Contraction and Phosphoinositide Turnover	<i>M. McMillan, B. Chernow, and B. L. Roth</i>	970
Quantitative Immunoprecipitation of the Lactose Transporter from <i>Escherichia coli</i> Confirms Stoichiometry of Substrate Binding	<i>Robert Seckler</i>	975
Intracellular Potassium Promotes Antibody Binding to an Antigen Associated with the Na/K Pump of Sheep Erythrocytes	<i>Beverley E. Farquharson and Philip B. Dunham</i>	982

Table of Contents

Molecular Cloning of the Sphingolipid Activator Protein 1 (SAP-1), the Sulfatide Sulfatase Activator	<i>N. Dewji, D. Wenger, S. Fujibayashi, M. Donoviel, F. Esch, F. Hill, and J. S. O'Brien</i>	989
Isolation of the Amyloid P Component from the Engelbreth-Holm-Swarm (EHS) Tumor of the Mouse	<i>S. Inoue, M. Skinner, C. P. Leblond, T. Shirahama, and A. S. Cohen</i>	995
Phenylmethylsulfonyl Fluoride (PMSF) Inhibits Nerve Growth Factor Binding to the High-Affinity (Type I) Nerve Growth Factor Receptor	<i>Robert W. Stach, Bettie M. Stach, and David J. Ennulat</i>	1000
Identification of Gonadotropin-Inducible, High-Density Lipoprotein Receptors in the Solubilized Membranes from Rat Ovary	<i>Dipak K. Ghosh and K. M. J. Menon</i>	1006
Specific Purification of Elongation Factor 2 and Isolation of Its Antibody	<i>Kiyoharu Takamatsu, Tsuyoshi Uchida, and Yoshio Okada</i>	1015
Immunoactive Atrial Natriuretic Peptide in the Rat Eye: Molecular Forms in Anterior Uvea and Retina	<i>Richard A. Stone and Christopher C. Glembotski</i>	1022
ERRATUM		
Volume 132, Number 1, October 15, 1985: Hayato Umekawa and Hiroyoshi Hidaka: "Phosphorylation of Caldesmon by Protein Kinase C," pp. 56-62		1029

Volume 134, Number 3, February 13, 1986

AUTHOR INDEX, Volume 134, Number 3, February 13, 1986		ii
Altered Catalytic Properties of Protein Kinase C in Phorbol Ester-Treated Cells	<i>Claude Cochet, Claude Souvignet, Michelle Keramidas, and Edmond M. Chambaz</i>	1031
The Effect of Dihydropyridine Calcium Agonists and Antagonists on Neuronal Voltage-Sensitive Calcium Channels	<i>Judith A. Creba and Manfred Karobath</i>	1038
The Storage of Globin mRNA during the Inhibition of Protein Synthesis by Heme Deprivation	<i>N. Shaun B. Thomas, Robert L. Matts, and Irving M. London</i>	1048
Organ-Specific Human Alcohol Dehydrogenase: Isolation and Characterization of Isozymes from Testis	<i>Werner P. Däfeldecker and Bert L. Vallee</i>	1056
Evidence That Mammalian Lignans Show Endogenous Digitalis-like Activities	<i>M. Fagoo, P. Braquet, J. P. Robin, A. Esanu, and T. Godfraind</i>	1064
Biosynthesis of Leukotoxin, 9,10-Epoxy 12-Octadecenoate by Leukocytes in Lung Lavages of Rat after Exposure to Hyperoxia	<i>Takayuki Ozawa, Mika Hayakawa, Tadanobu Takamura, Satoru Sugiyama, Kiyoshi Suzuki, Masaru Iwata, Fumio Taki, and Tadao Tomita</i>	1071
Na-23 NMR Spin-Lattice Relaxation Times in Rat Tissues, and Related Modifications following CCl ₄ Intoxication	<i>M. Casu, F. P. Corongiu, M. A. Dessì, M. Frau, and A. Lai</i>	1079
5S RNA Gene-Specific Transcription Factor (TFIIIA) Changes the Linking Number of the DNA	<i>Barkur S. Shastri</i>	1086
Expression of Aldolase A Messenger RNAs in Human Adult and Fetal Tissues and in Hepatoma	<i>F. Mennecier, D. Daegelen, F. Schweighoffer, M. Levin, and A. Kahn</i>	1093
Purification and Characterization of a New Form of Cytochrome P-450 (LM2b) from Untreated Male Rabbit Liver Microsomes	<i>Claude Bonfils, Christian Larroque, and Patrick Maurel</i>	1101
Methylation and Expression of the Human Thyroglobulin Gene	<i>F. Libert, G. Vassart, and D. Christophe</i>	1109
Carbocyclic Inosine as a Potent Anti-leishmanial Agent: The Metabolism and Selective Cytotoxic Effects of Carbocyclic Inosine in Promastigotes of <i>Leishmania tropica</i> and <i>Leishmania donovani</i>	<i>Osamu Hiraoka, Hiroyasu Satake, Satoko Iguchi, Akira Matsuda, Tohru Ueda, and Yusuke Wataya</i>	1114
Modulation of Prolactin Binding Sites <i>in Vitro</i> by Membrane Fluidizers. IV. Differential Effects on Plasma Membrane and Golgi Fractions of Male Prostate and Female Liver in the Rat	<i>Jitendra R. Dave and Raphael J. Witorsch</i>	1122

Kinetic Properties of Glycogen Synthase from Skeletal Muscle after Phosphorylation by Glycogen Synthase Kinase 4	<i>Donna F. Brown, Mohammed Hegazy, and Erwin M. Reimann</i>	1129
Biosynthesis of Thiamine: Origin of the Methyl Carbon Atom of the Pyrimidine Moiety in <i>Salmonella typhimurium</i>	<i>Bernard Estramareix and Serge David</i>	1136
¹²⁵ I-DPDYN, Monoiodo[D-Pro ¹⁰]dynorphin(1-11): A Highly Radioactive and Selective Probe for the Study of κ Opioid Receptors	<i>Jean Edouard Gairin, Catherine Jomary, Lucien Pradayrol, Jean Cros, and Jean-Claude Meunier</i>	1142
A Metalloprotease Involved in the Processing of Mitochondrial Precursor Proteins	<i>Satoshi Miura, Yoshihiro Amaya, and Masataka Mori</i>	1151
Purification and Properties of the Guanine Nucleotide Exchange Factor (GEF) from HeLa Cells and Its Role in the Initiation of Protein Synthesis	<i>Thomas M. Mariano, John Siekierka, and Severo Ochoa</i>	1160
Extended Secondary Structure in 5S rRNAs from a Sulfur-Metabolizing Archaeobacterium, <i>Thermococcus celer</i>	<i>John McDougall and Ross N. Nazar</i>	1167
Evidence of Phosphorylated Phosphatidylinositols in the Growth Cycle of Suspension-Cultured Plant Cells	<i>Sabina Heim and Karl G. Wagner</i>	1175
Induction of α_{2u} Globulin mRNA by Phenobarbital in Rat Liver: Characterization of a cDNA Clone	<i>M. L. Osorio-Almeida, C. Sinogas, M. Ludovice, and M. C. Lechner</i>	1182
An Endopeptidase Associated with Bovine Neurohypophysis Secretory Granules Cleaves Pro-oxytocin/Neurophysin Peptide at Paired Basic Residues	<i>Christine Clamagirand, Maryse Camier, Hamadi Boussetta, Christine Fahy, Alain Morel, Pierre Nicolas, and Paul Cohen</i>	1190
Divergent Metabolism of Human Chorionic Gonadotropin Subunits within Rat Ovarian Lysosomes	<i>A. Gilligan, A. Turner, and J. L. Vaitukaitis</i>	1197
Preparation of a Short Synthetic Apurinic Oligonucleotide	<i>J.-J. Vasseur, B. Rayner, and J.-L. Imbach</i>	1204
Retinyl Palmitate Hydrolase Activity in the Bovine Retina	<i>Andrew T. C. Tsin and Kwok-Wai Lam</i>	1209
Activation of Protein Kinase C by Lipoxin A and Other Eicosanoids: Intracellular Action of Oxygenation Products or Arachidonic Acid	<i>Anders Hansson, Charles N. Serhan, Jesper Haeggström, Magnus Ingelman-Sundberg, Bengt Samuelsson, and Joel Morris</i>	1215
Monoclonal Antibody Detection of Transformation-Associated Protein (TAP) in ts110 Moloney Murine Sarcoma Virus-Transformed 6M2 Cells That Are Different from the MOS Gene Product	<i>James C. Chan, Mark E. Keck, and Wanjun Li</i>	1223
Glucose Regulates Its Own Transport in Ehrlich Ascites Tumor Cells	<i>K. P. Fung, Y. M. Choy, T. W. Chan, W. P. Lam, and C. Y. Lee</i>	1231
Isolation and Partial Characterization of a 48-kDa Protein Which Is Induced in Normal Lymphocytes upon Mitogenic Stimulation	<i>Agata Giallongo, Salvatore Feo, Louise C. Showe, and Carlo M. Croce</i>	1238
C-Kinase Activation Prolongs Ca ²⁺ -Dependent Inactivation of K ⁺ Currents	<i>Daniel L. Alkon, Michinori Kubota, Joseph T. Neary, Shigetaka Naito, Douglas Coulter, and Howard Rasmussen</i>	1245
Evidence That the Antitumor Agent Hydroxyurea Enters Mammalian Cells by a Diffusion Mechanism	<i>Jessica S. Morgan, David C. Creasey, and Jim A. Wright</i>	1254
Transfer of the Epstein-Barr Virus (EBV) DNA Fragment Coding for EBNA-1, the Putative Transforming Antigen of EBV, into Normal Human Lymphocytes: Gene Expression without Cell Transformation	<i>Thomas G. Gross, Koji Sakai, and David J. Volsky</i>	1260
Calcium-Dependent Proteolysis of Calcium-Binding Proteins	<i>Istvan Sohar, John W. C. Bird, and Pamela B. Moore</i>	1269
Phosphorylation of the Cytoskeletal Protein Talin by Protein Kinase C	<i>David W. Litchfield and Eric H. Ball</i>	1276

Table of Contents

Increased Actin Nucleating Activity in Tumorigenic Cells	<i>R. L. Tellam and M. R. C. Banyard</i>	1284
Somatostatin, Insulin, and Glucagon Secretion by the Perfused Pancreas from the Cysteamine-Treated Rat	<i>R. A. Silvestre, P. Miralles, P. Moreno, M. L. Villanueva, and J. Marco</i>	1291
Protein Kinase C Mediated Regulation of Calcium Channels in PC-12 Pheochromocytoma Cells	<i>Katherine M. Harris, Sathapana Kongsamut, and Richard J. Miller</i>	1298
Investigation of the Structure/Activity Relationship of Human Calcitonin Gene-Related Peptide (CGRP)	<i>John R. Tippins, Vincenzo Di Marzo, Maria Panico, Howard R. Morris, and Iain MacIntyre</i>	1306
Kinetic Evidence for Activating and Nonactivating Components of Autophosphorylation of the Insulin Receptor Protein Kinase	<i>Ronald A. Kohanski and M. Daniel Lane</i>	1312
Aggregation of Marine Sponge Cells Induced by Ca Pulses, Ca Ionophores, and Phorbol Esters Proceeds in the Absence of External Ca	<i>Philip Dunham and Gerald Weissmann</i>	1319
Diacylglycerol Lipase Pathway Is a Minor Source of Released Arachidonic Acid in Thrombin-Stimulated Human Platelets	<i>Vhundi G. Mahadevappa and Bruce J. Holub</i>	1327
Antagonistic Action of a Tumor Promoter and a Poly(Adenosine diphosphoribose) Synthesis Inhibitor in Radiation-Induced Transformation <i>in Vitro</i>	<i>Carmia Borek and James E. Cleaver</i>	1334
Insulin and Exercise Stimulate Muscle α -Aminoisobutyric Acid Transport by a Na^+ - K^+ -ATPase-Independent Pathway	<i>Antonio Zorzano, Thomas W. Balon, Michael N. Goodman, and Neil B. Ruderman</i>	1342
Cell Surface Interaction Is Sufficient for the Biological Activity of a Bovine Sialoglycopeptide Inhibitor	<i>Behrooz G. Sharifi, Charles C. Bascom, and Terry C. Johnson</i>	1350
Substrate Specificity of Rat Brain Calcium-Activated and Phospholipid-Dependent Protein Kinase	<i>K.-F. Jesse Chan, Gerald L. Stoner, George A. Hashim, and Kuo-Ping Huang</i>	1358
Intracellular Location of Polyamines Associated to Red Blood Cells	<i>B. Tadolini, G. Hakim, G. Orlandini, and A. Casti</i>	1365
Polyamine-Activated Protein Phosphatase Activity in HeLa Cell Nuclei	<i>Daniel L. Friedman</i>	1372
Observation of Mg^{2+} ATP and Uncomplexed ATP in Slow Exchange by ^{31}P -NMR at High Magnetic Fields	<i>G. M. Sontheimer, W. Kuhn, and H. R. Kalbitzer</i>	1379
Differential Regulation of Multiple Neuroreceptors in a Somatic Cell Hybrid by Inhibitors of Glycoprotein Processing	<i>Ronald W. McLawhon, Elizabeth Berry-Kravis, and Glyn Dawson</i>	1387
Demonstration of GlcNAc Transferase I in Plants	<i>T. Szumilo, G. P. Kaushal, and Alan D. Elbein</i>	1395
Functionally Important Conserved Amino Acids in Interferon- α_2 Identified with Analogs Produced from Synthetic Genes	<i>R. Camble, N. N. Petter, P. Trueman, C. R. Newton, F. J. Carr, R. C. Hockney, V. E. Moore, A. R. Greene, D. Holland, and M. D. Edge</i>	1404
An Interferon Analog, $[\text{Ala}^{30,32,33}]\text{HuIFN-}\alpha_2$, Acting as a HuIFN- α_2 Antagonist on Bovine Cells	<i>Fabrizio Marcucci and Edward De Maeyer</i>	1412
ERRATUM		
Volume 133, Number 2, December 17, 1985: Frederick Esch, Naoto Ueno, Andrew Baird, Fred Hill, Luc Denoroy, Nicholas Ling, Denis Gospodarowicz, and Roger Guillemin, "Primary Structure of Bovine Brain Acidic Fibroblast Growth Factor (FGF)," pp. 554-562.		1419
Author Index for Volume 134		1420

Table of Contents

Formation of Superoxide and Hydroxyl Radicals from 1-Methyl-4-phenylpyridinium Ion (MPP ⁺): Reductive Activation by NADPH Cytochrome P-450 Reductase <i>Birandra K. Sinha, Yogendra Singh, and Gopal Krishna</i>	583
Regulation of Carnitine Palmitoyltransferase Activity in the Liver and Brown Adipose Tissue in the Newborn Rat: Effect of Starvation and Hypothermia <i>Matilde Peñas and Manuel Benito</i>	589
Estrogen Receptor Is Associated with Protein and Phospholipid Kinase Activities <i>Alberto Baldi, Denis M. Boyle, and James L. Wittliff</i>	597
High Affinity Binding of Divalent Cation to Actin Monomer Is Much Stronger Than Previously Reported <i>Lewis C. Gershman, Lynn A. Selden, and James E. Estes</i>	607
Isolation of a cDNA for Human Muscle 6-Phosphofructokinase <i>Shobhana Vora, Frank Hong, and Eric Olender</i>	615
Isolation and Primary Structure of a Peptide from the Corpora Cardiac of <i>Heliothis zea</i> with Adipokinetic Activity <i>Howard Jaffe, Ashok K. Raina, Clark T. Riley, Blair A. Fraser, G. Mark Holman, Renée M. Wagner, Richard L. Ridgway, and Dora K. Hayes</i>	622
Application of Reverse Micelles for the Extraction of Proteins <i>Martin E. Leser, Genshuan Wei, Pier Luigi Luisi, and Marco Maestro</i>	629
Rapid Purification of Protein Kinase C by High-Performance Liquid Chromatography <i>Ushio Kikkawa, Masayoshi Go, Junko Koumoto, and Yasutomi Nishizuka</i>	636
An Investigation on Reduction Process of Cucumber Ascorbate Oxidase <i>Takeshi Sakurai, Satoshi Sawada, Shinnichiro Suzuki, and Akitsugu Nakahara</i>	644
Effect of Polymyxin-B on T-Lymphocyte Protein Synthesis <i>B. Surendra Baliga, Lawrence J. Sindel, Lucy D. Jenkins, and Jane B. Sachen</i>	649
Diet Fat Alters the Structure and Function of the Nuclear Envelope: Modulation of Membrane Fatty Acid Composition, NTPase Activity and Binding of Triiodothyronine <i>J. T. Venkatraman, Y. A. Lefebvre, and M. T. Clandinin</i>	655
Inositol 1,4,5-Trisphosphate Enhances Ca ²⁺ -Sensitivity of the Contractile Mechanism of Chemically Skinned Rabbit Skeletal Muscle Fibers <i>R. Thieleczek and L. M. G. Heilmeyer, Jr.</i>	662
Arachidonic Acid Inhibits 5-Lipoxygenase in Human T Cells <i>Durgaprasadarao Atluru, Elias A. Lianos, and James S. Goodwin</i>	670
Discrimination between Duroquinol Oxidase Activity and the Terminal Oxidation Step of the Cyanide-Resistant Electron Transport Pathway of Plant Mitochondria <i>Pierre Rustin, Marie-Françoise Alin, and Claude Lance</i>	677
D-Aspartic Acid in Purified Myelin and Myelin Basic Protein <i>George H. Fisher, Nancy M. Garcia, Iris L. Payan, Rodolfo Cadilla-Perezrrios, William A. Sheremata, and Eugene H. Man</i>	683
3-Deazaneplanocin: A New and Potent Inhibitor of S-Adenosylhomocysteine Hydrolase and Its Effects on Human Promyelocytic Leukemia Cell Line HL-60 <i>Robert I. Glazer, Kathleen D. Hartman, Marion C. Knode, Michelle M. Richard, Peter K. Chiang, Christopher K. H. Tseng, and Victor E. Marquez</i>	688

Volume 135, Number 3, March 28, 1986

AUTHOR INDEX, Volume 135, Number 3, March 28, 1986	ii
GTP Influences the Binding of Vincristine in Human Tumor Cytosols <i>Laura C. Bowman, Janet A. Houghton, and Peter J. Houghton</i>	695
Lipoprotein as a Regulator of Starch Synthesizing Enzyme Activity <i>William M. Rutherford, Jacob P. Varkey, Derek A. McCracken, and Mathew J. Nadakavukaren</i>	701
Isopycnography of Intact Cells. VI. Effect of Temperature on Steady State <i>Escherichia coli</i> <i>Lori Golosow, Richard Hulme, SungAe Cho, and Carl W. Vermeulen</i>	708
Amino Terminal Sequence Analysis of Human Placenta Aromatase <i>Shiuan Chen, John E. Shively, Shizuo Nakajin, Masato Shinoda, and Peter F. Hall</i>	713

Table of Contents

Studies on the Human Blood Group P System: An Existence of UDP-Gal:Lactosylceramide $\alpha 1 \rightarrow 4$ Galactosyltransferase in the Small <i>p</i> -Type Cells	<i>S. Iizuka, S.-H. Chen, and A. Yoshida</i>	1187
Localization of Human SAA Gene(s) to Chromosome 11 and Detection of DNA Polymorphisms	<i>B. Kluge-Beckerman, S. L. Naylor, A. Marshall, J. C. Gardner, T. B. Shows, and M. D. Benson</i>	1196
Effect of Heparin on the Stimulation of Nonvascular Cells by Human Acidic and Basic FGF	<i>S. Uhlrich, O. Lagente, M. Lenfant, and Y. Courtois</i>	1205
Author Index for Volume 137		1214

Volume 138, Number 1, July 16, 1986

AUTHOR INDEX, Volume 138, Number 1, July 16, 1986		iii
On the Physiological Role of Neurocuprein: Aponeurocuprein Is an Inhibitor of Dopamine β -Monooxygenase	<i>Kira A. Markossian, Norair A. Paitian, Mariam V. Mikaelyan, and Robert M. Nalbandyan</i>	1
Dimethylsulfoxide, Retinoic Acid, and 12- <i>O</i> -Tetradecanoylphorbol-13-acetate Induce a Selective Decrease in the Phosphorylation of P150, a Surface Membrane Phosphoprotein of HL60 Cells Resistant to Adriamycin	<i>Wallace Marsh and Melvin S. Center</i>	9
Detection of a Potential Transcription Control Sequence on the Cauliflower Mosaic Virus Genome by Dinucleotide Primed <i>In Vitro</i> Transcription	<i>Richard Cooke and Paul Penon</i>	17
Lipid Peroxidation-Dependent Aldrin Epoxidation in Liver Microsomes, Hepatocytes, and Granulation Tissue Cells	<i>B. Lang and P. Maier</i>	24
Carcinogen Metabolism in Human Skin Grafted onto Athymic Nude Mice: A Model System for the Study of Human Skin Carcinogenesis	<i>Mukul Das, Parthasarathy Asokan, Philip S. C. Don, Gerald G. Krueger, David R. Bickers, and Hasan Mukhtar</i>	33
A Misaligned Double-Stranded RNA, Poly(I)•Poly(C ₁₂ ,U), Induces Accumulation of 2', 5'-Oligoadenylates in Mouse Tissues	<i>William G. Hearl and Margaret I. Johnston</i>	40
Induction of Interferon by Transformed Cells: Inhibition by Retinoic Acid	<i>T. K. Hughes, J. K. Russell, and J. E. Blalock</i>	47
Leucovorine Prevents Methotrexate from Inducing DNA Lesions	<i>Ulf Lönn and Sigrid Lönn</i>	54
Involvement of Fodrin-Binding Proteins in the Structure of the Neuronal Postsynaptic Density and Regulation by Phosphorylation	<i>Harry LeVine III and Naji E. Sahyoun</i>	59
Chemoattractant Efficacy: Oxidation of Stimulus by Responding Cells	<i>Teizo Yoshimura, Antal Rot, and Edward J. Leonard</i>	66
An <i>Escherichia coli</i> Mutant Exhibiting Temperature-Sensitive ATP Synthesis	<i>Masaki Ito, Masamichi Nakamura, Hideaki Nagamune, Norifumi Morikawa, and Hiroshi Terada</i>	72
Localization of the Hydrophilic C-Terminal Part of the ATP Synthase Subunit 8 of <i>Saccharomyces cerevisiae</i>	<i>Jean Velours and Bernard Guerin</i>	78
Calcium-Induced Alterations in the Levels and Subcellular Distribution of Proteolytic Enzymes in Human Red Blood Cells	<i>M. Grasso, A. Morelli, and A. De Flora</i>	87
Phosphorylation of Isolated Plasma Membranes of AH-66 Hepatoma Ascites Cells by Casein Kinase 1	<i>Kazuyasu Nakaya, Katsumi Shinkawa, Shigeo Nakajo, and Yasuharu Nakamura</i>	95
The 52-kDa Estrogen-Induced Protein Secreted by MCF ₇ Cells Is a Lysosomal Acidic Protease	<i>Muriel Morisset, Françoise Capony, and Henri Rochefort</i>	102
Preferential Nucleosome Placement on BR322 Restriction Fragments	<i>P. T. McNamara, I. Winicov, and R. E. Harrington</i>	110

Isolation of the Catalytically Competent Small Subunit of Ribulose Bisphosphate Carboxylase/Oxygenase from Spinach under an Extremely Alkaline Condition <i>Aran Incharoensakdi, Tetsuko Takabe, Teruhiro Takabe, and T. Akazawa</i>	118
Induction of Desensitization by Phorbol Ester to β -Adrenergic Agonist Stimulation in Adenylate Cyclase System of Rat Reticulocytes <i>Atsushi Yamashita, Tomonori Kurokawa, Toshio Dan'ura, Kyoichiro Higashi, and Sadahiko Ishibashi</i>	125
Hepatitis B Virus Transcripts in a Human Hepatoma Cell Line, Hep 3B <i>Tsung-Sheng Su, Ling-Huang Lin, Chen-Kung Chou, Chungming Chang, Ling-Pai Ting, Cheng-po Hu, and Shou-Hwa Han</i>	131
Biochemical Studies on Proacrosin and Acrosin from Epididymal Boar Spermatozoa: <i>In Vitro</i> Translation of Boar Testicular Proacrosin mRNA <i>Giovanna Berruti, Grazia Merigioli, and Enzo Martegani</i>	139
Amino Acid Composition of the 9-kDa Phosphoprotein of Pea Thylakoids <i>John F. Allen and John B. C. Findlay</i>	146
Involvement of Sulfatide in Activation of Protein Kinase C by Tumor Promoters <i>Hirota Fujiki, Katsumi Yamashita, Masami Suganuma, Takahiko Horiuchi, Naoyuki Taniguchi, and Akira Makita</i>	153
The Effect of Arabinose 1,5-Bisphosphate on Rat Hepatic 6-Phosphofructo-1-kinase and Fructose-1,6-bisphosphatase <i>Simon J. Pilkis, Molly M. McGrane, Paul D. Kountz, M. Raafat El-Maghrabi, Jo Pilkis, Bruce E. Maryanoff, Allen B. Reitz, and Stephen J. Benkovic</i>	159
Conjugation of Cholic Acid with Taurine and Glycine by Rat Liver Peroxisomes <i>Bengt Frode Kase, Kristian Prydz, Ingemar Björkhem, and Jan I. Pedersen</i>	167
Vanadate Stimulation of IGF Binding to Rat Adipocytes <i>S. Kadota, I. G. Fantus, B. Hersh, and B. I. Posner</i>	174
Evidence for High Peptide α -Amidation Activity in the Neonatal Rat Pancreas <i>L.H. Ouafik, A. Dutour, P. Salers, P. Giraud, F. Boudouresque, E. Castanas, and C. Oliver</i>	179
Structural Studies on H^+ , K^+ -ATPase: Determination of the NH_2 -Terminal Amino Acid Sequence and Immunological Cross-Reactivity with Na^+ , K^+ -ATPase <i>Lois K. Lane, Terence L. Kirley, and William J. Ball, Jr.</i>	185
Covalent Binding to Apoprotein Is a Major Fate of Heme in a Variety of Reactions in Which Cytochrome P-450 Is Destroyed <i>F. Peter Guengerich</i>	193
Volume Changes upon Addition of Ca^{2+} to Calmodulin: Ca^{2+} -Calmodulin Conformational States <i>Donald W. Kupke and Theodore E. Dorrier</i>	199
Purification of cAMP-Specific Phosphodiesterase from Rat Heart by Affinity Chromatography on Immobilized Rolipram <i>Sylvie Fougier, G. Némot, A. F. Prigent, M. Marivet, J. J. Bourguignon, C. Wermuth, and H. Pacheco</i>	205
The Influence of Activating Hormones on Human Platelet Membrane Ca^{2+} -ATPase Activity <i>Thérèse J. Resink, Dimitar Dimitrov, Susanne Stucki, and Fritz R. Bühler</i>	215
Isolation of Galactosyltransferase from Human Milk and the Determination of Its N-Terminal Amino Acid Sequence <i>Hubert E. Appert, Thomas J. Rutherford, George E. Tarr, Neil R. Thomford, and D. James McCorquodale</i>	224
Enzymatic Deglycosylation of Thyroid-Stimulating Hormone with Peptide N-Glycosidase F and Endo- β -N-acetylglucosaminidase F <i>Kok-Onn Lee, Neil Gesundheit, Hao-Chia Chen, and Bruce D. Weintraub</i>	230
Purification of Human Macrophage Colony Stimulating Factor (CSF-1) from Medium Conditioned by Pancreatic Carcinoma Cells <i>Judit Csejtey and Albert Boosman</i>	238
Influence of H-2 Haplotypes on Poly IC Induction of Xanthine Oxidase and Poly IC-Induced Decreases in P-450-Mediated Enzyme Activities <i>A. Koizumi, L. Hasegawa, K. E. Rodgers, D. Ellefson, R. L. Walford, and T. Imamura</i>	246
Transport of γ -Interferon into the Cell Nucleus May Be Mediated by Nuclear Membrane Receptors <i>Hector S. MacDonald, Vladimir M. Kushnaryov, J. James Sedmak, and Sidney E. Grossberg</i>	254

Table of Contents

Diadenosine Tetraphosphate Activates Cytosol 5'-Nucleotidase <i>Rosa M. Pinto, José Canales, María A. Günther Sillero, and Antonio Sillero</i>	261
Expression of Hepatitis B Virus Surface Antigen P31 Gene in Yeast <i>Yasuaki Itoh, Takaki Hayakawa, and Yukio Fujisawa</i>	268
Diacylglycerol Amplifies the Induction <i>in Vivo</i> of Tyrosine Aminotransferase and Ornithine Decarboxylase by Glucocorticoid <i>Hiroshi Kido, Naomi Fukusen, Kazumi Ishidoh, and Nobuhiko Katunuma</i>	275
Polyethylene Glycol-Modified Hemin Having Peroxidase Activity in Organic Solvents <i>Katsunobu Takahashi, Ayako Matsushima, Yuji Saito, and Yuji Inada</i>	283
Possible Involvement of Germ Cells in the Regulation of Oestradiol-17 β and ABP Secretion by Immature Rat Sertoli Cells (<i>in Vitro</i> Studies) <i>B. Le Magueresse and B. Jégou</i>	289
The Yeast SRP Gene: Positive Modulation by Glucose of Its Transcriptional Expression <i>Didier Marguet and Guy J-M. Lauquin</i>	297
Purification of the Insulin-like Growth Factor II (IGF-II) Receptor from an IGF-II-Producing Cell Line, and Generation of an Antibody Which Both Immunoprecipitates and Blocks the Type 2 IGF Receptor <i>R. G. Rosenfeld, D. Hodges, H. Pham, P. D. K. Lee, and D. R. Powell</i>	304
<i>N</i> -Hydroxy-2-acetylaminofluorene as Effective Inhibitor of Aldehyde Oxidase <i>Kiyoshi Tatsumi and Shigeyuki Kitamura</i>	312
Intracellular Distribution of Some Enzymes of the Glutamine Utilization Pathway in Rat Lymphocytes <i>R. Curi, P. Newsholme, and E. A. Newsholme</i>	318
Role of Calcium on TPA-Induced Secretion of ACTH and PGE ₂ by Pituitary Cells: Effect of Dexamethasone <i>Evelyne Dartois and Marie M. Bouton</i>	323
Absence of Phosphorylation of Retinoid-Binding Proteins by Protein Kinase C <i>in Vitro</i> <i>Mitsuo Ninomiya, Hirota Fujiki, Nam Sun Paik, Takahiko Horiuchi, and R. K. Boutwell</i>	330
Regulation of Squalene Synthetase Activity in Rat Liver: Elevation by Cholestyramine, But No Diurnal Variation <i>L. H. Cohen, A. M. Griffioen, R. J. A. Wanders, C. W. T. Van Roermund, C. M. G. Huysmans, and H. M. G. Princen</i>	335
The 20,000-Da Structural Variant of Recombinant DNA-Derived Methionyl Human Growth Hormone Has Early Insulin-like Effects in Hypophysectomized Rats <i>F. C. Tinsley, E. L. Grinnan, S. H. Baker, J. G. Powell, K. G. Bemis, and C. J. Shaar</i>	342
Quantitation of a SRC-like Tyrosine Protein Kinase during Fertilization of the Sea Urchin Egg <i>Chris Kamel, Patricia A. Veno, and William H. Kinsey</i>	349
A Putative Opioid-Peptid Processing Activity in Enriched Golgi Fraction from Rat Brain <i>Wolfgang Demmer and Karl Brand</i>	356
Specific Detection of <i>Plasmodium falciparum</i> Malaria by a Molecularly Cloned DNA Probe <i>Ramareddy V. Guntaka, Arepalli S. Rao, Theodore J. Green, and William E. Collins</i>	363
The Effect of Sodium Benzoate on Ammonia Toxicity in Rats <i>Sibusisiwe M. Maswoswe, Douglas M. Cyr, Ann D. Griffith, and George C. Tremblay</i>	369
Effect of Streptozotocin-Induced Diabetes and Insulin Treatment on the Degradation of Hexokinase II in the Skeletal Muscle of the Rat <i>Sandra K. Frank and Herbert J. Fromm</i>	374
Thyroxine-Induced Changes in Rat Liver Mitochondrial Ubiquinone <i>Mark A. Horrum, Richard B. Tobin, and Robert E. Ecklund</i>	381
Age-Dependent Changes in Expression of α_1 -Adrenergic Receptors in Rat Myocardium <i>William Schaffer and R. Sanders Williams</i>	387
The Complete Nucleotide Sequence of Canine Brain B Creatine Kinase mRNA: Homology in the Coding and 3' Noncoding Regions among Species <i>Joseph J. Billadello, Daniel P. Kelly, Dragos G. Roman, and Arnold W. Strauss</i>	392
Atrial Natriuretic Factor Regulates Steroidogenic Responsiveness and Cyclic Nucleotide Levels in Mouse Leydig Cells <i>in Vitro</i> <i>Kailash N. Pandey, Spyros N. Pavlou, William J. Kovacs, and Tadashi Inagami</i>	399
Regulation of Atrial Natriuretic Peptide Receptors in Cultured Vascular Smooth Muscle Cells of Rat <i>Yukio Hirata, Shoichiro Takata, Yasuyuki Takagi, Hiroaki Matsubara, and Teruo Omae</i>	405

DNA Fragments of 300 Base Pairs Released from Metaphase Chromosomes by Digestion with Deoxyribonuclease I	<i>Kazuhide Takahashi and Ichiro Kaneko</i>	413
Comparison of <i>in Vitro</i> and <i>in Vivo</i> Effects of Different Species-Specific GnRH and Their Analogs	<i>Anikó Horváth, György Kéri, Tamás Gulyás, Sándor Vigh, Károly Nikolics, and István Teplán</i>	419
Atrial Natriuretic Factor Receptors Are Negatively Coupled to Adenylate Cyclase in Cultured Atrial and Ventricular Cardiocytes	<i>Madhu B. Anand-Srivastava and Marc Cantin</i>	427
Role of Methionine-1 in Ubiquitin Conformation and Activity	<i>Esther Breslow, Yeshpal Chauhan, Reynold Daniel, and Suresh Tate</i>	437
CSF-1 Stimulates Glucose Uptake in Murine Bone Marrow-Derived Macrophages	<i>John A. Hamilton, Gino Vairo, and Suzanne R. Lingelbach</i>	445
A Rapid Apolipoprotein E Radioimmunoassay Using Solid-Phase Staphylococcus Protein: Use of Pooled Plasma as a Secondary Standard	<i>Yin Ping T. Au, Nina D. Bren, and Bruce A. Kottke</i>	455
Sphingolipids Inhibit Insulin and Phorbol Ester-Stimulated Uptake of 2-Deoxyglucose	<i>Don H. Nelson and Darrell K. Murray</i>	463
Expression of the Phosphoenolpyruvate Carboxykinase Gene and Its Insulin Regulation during Differentiation of Preadipose Cell Lines	<i>Christian Dani, Alain Doglio, Paul Grimaldi, and Gérard Ailhaud</i>	468
Inhibition of Endothelial Cell Proliferation by Type β -Transforming Growth Factor: Interactions with Acidic and Basic Fibroblast Growth Factors	<i>Andrew Baird and Terri Durkin</i>	476
Extracellular Calcium Alters the Effects of Retinoic Acid on DNA Synthesis in Cultured Murine Keratinocytes	<i>Philip Tong, Douglas Mayes, and Larry Wheeler</i>	483
Steady-State Fluorescence Emission from the Fluorescent Probe, 5-Iodoacetamido-fluorescein, Bound to Hemoglobin	<i>Rhoda Elison Hirsch, R. Suzanne Zukin, and Ronald L. Nagel</i>	489
Lack of a Direct Regulatory Effect of Atrial Natriuretic Factor on Prostaglandins and Renin Release by Isolated Rat Glomeruli	<i>D. Rodríguez-Puyol, G. Arriba, A. Blanchart, J. C. Santos, C. Caramelo, A. Fernández-Cruz, L. Hernando, and J. M. López-Novoa</i>	496
ERRATA		
Volume 134, Number 1, January 14, 1986: G. L. Rosenquist, K. Maruthinar, and D. G. Smyth, " β -Endorphin Is Present in Active and Inactive Forms in Rat Gastric Antrum," pp. 14-20.		502
Volume 136, Number 2, April 29, 1986: Patricia A. Donohoue, Nicholas Jospe, Claude J. Migeon, Robert H. McLean, Wilma B. Bias, Perrin C. White, and Cornelis Van Dop, "Restriction Maps and Restriction Fragment Length Polymorphisms of the Human 21-Hydroxylase Genes," pp. 722-729.		502
Volume 137, Number 1, May 29, 1986: Martin K. Bijsterbosch, Kevin P. Rigley, and Gerry G. B. Klaus, "Cross-Linking of Surface Immunoglobulin on B Lymphocytes Induces Both Intracellular Ca^{2+} Release and Ca^{2+} Influx: Analysis with Indo-1," pp. 500-506.		503
Volume 138, Number 2, July 31, 1986		
AUTHOR INDEX, Volume 138, Number 2, July 31, 1986		iii
Frameshift Mutagenesis in <i>Salmonella typhimurium</i> by Reversible DNA Intercalators: Effect of a <i>uvr B</i> Mutation	<i>Brigitte René, Christian Auclair, and Claude Paoletti</i>	505
Multiple Sequences in the <i>Drosophila melanogaster</i> U3 RNA Gene Are Homologous to Vertebrate U3 RNA	<i>Mitsutaro Akao, Ram Reddy, and Harris Busch</i>	512

Inhibition of HeLa Cell Protein Synthesis under Heat Shock Conditions in the Absence of Initiation Factor eIF-2 α Phosphorylation	Thomas M. Mariano and John Siekierka	519
Isolation and Initial Characterization of a <i>Bacillus subtilis</i> Mutant with Novel Protease Secretion Capability	M. Walid Qoronfleh and Uldis N. Streips	526
The Mitochondrial Site of Superoxide Formation	Hans Nohl and Werner Jordan	533
Pharmacological Profiles of a Potential LTB ₄ -Antagonist, SM-9064	Mitsuo Namiki, Yukinobu Igarashi, Kimiko Sakamoto, Toshio Nakamura, and Yoshihiko Koga	540
Specific <i>in Vitro</i> Activation of Ca _v Mg-ATPase by Vitamin D-Dependent Rat Renal Calcium Binding Protein (Calbindin D _{28K})	Douglas W. Morgan, Ann F. Welton, Alison E. Heick, and Sylvia Christakos	547
Calcium Ionophore A23187 Primes Human B Cells for Activation by Phorbol Dibutyrate by Converting Receptors for Phorbol Dibutyrate from a Low to High Affinity State	N. P. Hurst, P. D. Zalewski, I. J. Forbes, and L. Valente	554
Retinoic Acid Blocks Potassium Channels in Human Lymphocytes	Neil Sidell and Lyanne Schlichter	560
L-Aspartate Ammonia-Lyase and Fumarate Hydratase Share Extensive Sequence Homology	Jun S. Takagi, Masanobu Tokushige, Yoshiro Shimura, and Minoru Kanehisa	568
Angiotensin II Generated by a Human Renal Carboxypeptidase	David G. Changaris, James J. Miller, and Robert S. Levy	573
Isolation of an Amino Terminal Extended Form of Basic Fibroblast Growth Factor	Naoto Ueno, Andrew Baird, Frederick Esch, Nicholas Ling, and Roger Guillemin	580
Requirement of Free Arachidonic Acid for Leukotriene B ₄ Biosynthesis by 12-Hydroperoxyeicosatetraenoic Acid-Stimulated Neutrophils	Kenji Kanaji, Minoru Okuma, Tateo Sugiyama, Shigeki Sensaki, Fumitaka Ushikubi, and Haruto Uchino	589
Inhibition of Adenylate Cyclase by Transglutaminase-Catalyzed Reactions in Pigeon Erythrocyte Ghosts	R. Porta, A. De Santis, C. Esposito, G. F. Draetta, A. Di Donato, and G. Illiano	596
Study of a Hydrophobic Site on Bovine α -Lactalbumin by Labeling with [¹²⁵ I]TID	J. CL. Van Ceunebroeck, J. Krebs, I. Hanssens, and F. Van Cauwelaert	604
The Complete Amino Acid Sequence of Human Brain-Derived Acidic Fibroblast Growth Factor	Guillermo Gimenez-Gallego, Greg Conn, Victor B. Hatcher, and Kenneth A. Thomas	611
Stimulation of Prostaglandin E ₂ and Bone Resorption by Recombinant Human Interleukin 1 α in Fetal Mouse Bones	Kanji Sato, Yuko Fujii, Keizo Kasono, Motoyasu Saji, Toshio Tsushima, and Kazuo Shizume	618
Different Expression of Alkaline Phosphatase in Subclones of Human Neoplastic Salivary Duct Cell Line	Kanemitsu Shirasuna, Shigeyuki Morioka, Kazuya Watatani, and Masaru Sugiyama	625
Effect of Serum on Inhibition of DNA Synthesis in Leukemia Cells by <i>cis</i> - and <i>trans</i> -[Pt(NH ₃) ₂ Cl ₂]	K. Uchida, Y. Tanaka, T. Nishimura, Y. Hashimoto, T. Watanabe, and I. Harada	631
Autolytic Activation of Calcium-Activated Neutral Protease	Mitsushi Inomata, Kazutomo Imahori, and Seiichi Kawashima	638
The Genes for Basic and Acidic Fibroblast Growth Factors Are on Different Human Chromosomes	Ayalew Mergia, Roger Eddy, Judith A. Abraham, John C. Fiddes, and Thomas B. Shows	644
Affinity of Nucleotides for the Active Site of Detergent-Solubilized Sarcoplasmic Reticulum Ca-ATPase	Richard J. Coll and Alexander J. Murphy	652
Selective Oxidation of Imidazole Ring in Histidine Residues by the Ascorbic Acid-Copper Ion System	Koji Uchida and Shunro Kawakishi	659

Characterization of Affinity-Purified Type I Insulin-like Growth Factor Receptor from Human Placenta	<i>Peter Maly and Christine Lüthi</i>	1257
Identification of the Cardiac and Circulating Form of Atriopeptin in Rabbit	<i>Yuefang Wei, David Geller, Ned R. Siegel, and Philip Needleman</i>	1263
3,4,5-Triiodobenzoic Acid Affects [³ H]Verapamil Binding to Plant and Animal Membrane Fractions and Smooth Muscle Contraction	<i>Elisabeth Andrejauskas, Rainer Hertel, and Dieter Marmé</i>	1269
Interferon- γ Is Able to Enhance the Oxidative Metabolism of Human Neutrophils	<i>Giorgio Berton, Lucia Zeni, Marco A. Cassatella, and Filippo Rossi</i>	1276
Phorbol Ester-Induced Alteration of Protein Kinase C Catalytic Properties Occurs at the Membrane Level and Is Not Reproduced by Physiological Stimuli	<i>C. Cochet, M. Keramidas, C. Souvignet, and E. M. Chambaz</i>	1283
Cell-Free Synthesis of Ubiquinone-Binding Protein of Mitochondrial Cytochrome bc ₁ Complex	<i>Morimitsu Nishikimi, Yoshiharu Shimomura, and Takayuki Ozawa</i>	1291
Association of the Heat Shock Protein HSP90 with Steroid Hormone Receptors and Tyrosine Kinase Oncogene Products	<i>Andrew Ziemiecki, Maria-Grazia Catelli, Irène Joab, and Bruno Moncharmont</i>	1298
[³ H]Muscimol Photolabels the γ -Aminobutyric Acid Receptor Binding Site on a Peptide Subunit Distinct from That Labeled with Benzodiazepines	<i>Lynn Deng, Richard W. Ransom, and Richard W. Olsen</i>	1308
Impaired Basal and Noradrenaline-Induced Iodothyronine 5'-Deiodinase Activity in Brown Adipose Tissue from Pregnant and Lactating Rats	<i>M. Giralt, F. Villarroya, T. Mampel, and R. Iglesias</i>	1315
Presence of Interleukin-3-like Activity in the Supernatants of Lipopolysaccharide-Stimulated Mouse Splenocytes	<i>Jean-Marc Cavaillon, Catherine Fitting, and Bernard David</i>	1322
Phorbol Esters, but Not Epidermal Growth Factor or Insulin, Rapidly Decrease Soluble Protein Kinase C Activity in Rat Hepatocytes	<i>W. J. Vaartjes, C. G. M. de Haas, and S. G. van den Bergh</i>	1328
Prediction of Transcriptional Activity Based on Gene Association with the Nuclear Matrix	<i>Ralph Buttyan and Carl A. Olsson</i>	1334
Identification of a Monoclonal Antibody Which Can Distinguish between Two Distinct Species of the Type I Receptor for Insulin-like Growth Factor	<i>David O. Morgan and Richard A. Roth</i>	1341
A Role for Disulfide Bridges in the Protein Core in the Interaction of Proteodermatan Sulfate and Collagen	<i>Paul G. Scott, Neil Winterbottom, Carole M. Dodd, Elena Edwards, and C. Harold Pearson</i>	1348
Rat Heart Cell Membranes Contain Three Substrates for Cholera Toxin-Catalyzed ADP-Ribosylation and a Single Substrate for Pertussis Toxin-Catalyzed ADP-Ribosylation	<i>Takeshi Murakami and Hisakazu Yasuda</i>	1355
Phorbol Ester Contracts Rabbit Thoracic Aorta by Increasing Intracellular Calcium and by Activating Calcium Influx	<i>Marie M. Gleason and Stephen F. Flaim</i>	1362
Decreased Level of Calpain Inhibitor Activity in Red Blood Cells from Milan Hypertensive Rats	<i>S. Pontremoli, E. Melloni, F. Salamino, B. Sparatore, P. Viotti, M. Michetti, L. Duzzi, and G. Bianchi</i>	1370
Synergistic Action of Adenosine and fMet-Leu-Phe in Raising cAMP Content of Purified Human Monocytes	<i>Keith R. F. Elliott, Paul J. Miller, Henry C. Stevenson, and Edward J. Leonard</i>	1376
Evidence That Thyrotropin-Releasing Hormone-Induced Increases in GTPase Activity and Phosphoinositide Metabolism in GH ₃ Cells Are Mediated by a Guanine Nucleotide-Binding Protein Other than G _s or G _i	<i>Richard J. H. Wojcikiewicz, Patricia A. Kent, and John N. Fain</i>	1383
Occurrence of α_2 -Adrenergic Effects on Adenylate Cyclase Activity and [³ H]Clonidine-Specific Binding in Brown Adipose Tissue from Fetal Rats	<i>María J. Domínguez, Margarita Fernández, Keith Elliott, and Manuel Benito</i>	1390

Fructose 2,6-Bisphosphate in Human Platelets: Its Possible Role in the Control of Basal and Thrombin-Stimulated Glycolysis	<i>Marta Farnararo, Paola Bruni, and Valeria Vasta</i>	666
D-Ribose Inhibits DNA Repair Synthesis in Human Lymphocytes	<i>G. Zunica, M. Marini, M. A. Brunelli, M. Chiricolo, and C. Franceschi</i>	673
Induction of Polypeptides in <i>Saccharomyces cerevisiae</i> after Ultraviolet Irradiation	<i>J. F. Angulo, J. Schwencke, I. Fernandez, and E. Moustacchi</i>	679
Activities of Some Key Enzymes of Carbohydrate, Ketone Body, Adenosine, and Glutamine Metabolism in Liver, and Brown and White Adipose Tissues of the Rat	<i>Greg Cooney, Rui Curi, Andrew Mitchelson, Philip Newsholme, Morag Simpson, and Eric A. Newsholme</i>	687
The Effect of Fe^{2+} on the Activity of Human Plasma Protein Kinase	<i>Thomas M. Chiang</i>	693
^{31}P NMR Spectra of Rodent and Avian Fibroblasts Transformed by Rous or Kirsten Sarcoma Viruses	<i>Jean-Luc Dimicoli, Pierre Jullien, Danièle Carrez, Alain Croisy, and Jean-Marc Lhoste</i>	699
Metabolism of <i>S</i> -(2-Chloro-1,1,2-trifluoroethyl)-L-cysteine to Hydrogen Sulfide and the Role of Hydrogen Sulfide in <i>S</i> -(2-Chloro-1,1,2-trifluoroethyl)-L-cysteine-Induced Mitochondrial Toxicity	<i>Katalin Banki, Adnan A. Elfarrar, Lawrence H. Lash, and M. W. Anders</i>	707
Preparation and Binding of Radioactively Labeled Porcine Transforming Growth Factor Type β	<i>Eric Ruff and Angie Rizzino</i>	714
Lysophosphatidylinositol, But Not Lysophosphatidic Acid, Stimulates Insulin Release: A Possible Role for Phospholipase A_2 But Not <i>de Novo</i> Synthesis of Lysophospholipid in Pancreatic Islet Function	<i>Stewart A. Metz</i>	720
Spermatozoa Contain a Guanine Nucleotide-Binding Protein ADP-Ribosylated by Pertussis Toxin	<i>J. Kelley Bentley, David L. Garbers, Steven E. Domino, Thomas D. Noland, and Cornelis Van Dop</i>	728
Active-Site Probes of Carnitine Acyltransferases: Inhibition of Carnitine Acetyltransferase by Hemiacetylcarnitinium, a Reaction Intermediate Analog	<i>Richard D. Gandour, William J. Colucci, Paul S. Brady, and Linda J. Brady</i>	735
Induction of L-Alanine:4,5-dioxovalerate Transaminase by Phenylhydrazine Is Associated with Depletion of Heme Level	<i>R. Chhabra, N. K. Singh, and K. Datta</i>	742
Excess Generation of Endogenous Heme Inhibits L-Alanine:4,5-dioxovalerate Transaminase in Rat Liver Mitochondria	<i>J. Shanker and K. Datta</i>	751
A High Melting <i>cis</i> -[Pt(NH ₃) ₂ [d(GpG)]] Adduct of a Decanucleotide Duplex	<i>Bruno van Hemelryck, Eric Guittet, Geneviève Chottard, Jean-Pierre Girault, Frédéric Herman, Tam Huynh-Dinh, Jean-Yves Lallemand, Jean Igolen, and Jean-Claude Chottard</i>	758
<i>N</i> -[(1,5,9)-Trimethyl-decyl]-4 α ,10-dimethyl-8-aza-trans-decal-3 β -ol, a Novel Potent Inhibitor of 2,3-Oxidosqualene Cycloartenol and Lanosterol Cyclases	<i>M. Taton, P. Benveniste, and A. Rahier</i>	764
Putrescine Does Not Mediate the Androgen Response in Mouse Kidney	<i>Franklin G. Berger and Carl W. Porter</i>	771
Reevaluation of a Method Calculating Cleavage Rates at Different Sites of DNA from Partial Digestion of End-Labeled Molecules	<i>Petr Karlovský</i>	778
Phosphorylation of the Calmodulin-Dependent Protein Phosphatase by Protein Kinase C	<i>H. Y. Lim Tung</i>	783
Modification of Glu 58, an Amino Acid of the Active Center of Ribonuclease T ₁ , to Gln and Asp	<i>S. Nishikawa, H. Morioka, K. Fuchimura, T. Tanaka, S. Uesugi, E. Ohtsuka, and M. Ikehara</i>	789
Biological Characterization of an Acid-Sensitive Growth Factor from Human Platelets: Role in the Proliferation of Human Melanoma and Bovine Endothelial Cells	<i>Nancy J. Sipes, Frank L. Meyskens, Jr., and Marvin D. Bregman</i>	795
Catalytic Facilitation by Diffusion of Adsorbed Substrate on Membrane Surface	<i>P. R. V. Nayudu, P. Hannaford, and R. M. Lowe</i>	803

Table of Contents

Nerve Growth Factor mRNA in Brain: Localization by <i>in Situ</i> Hybridization	<i>Paul D. Rennert and Gerhard Heinrich</i>	813
Thermodynamics of Proton Transfer in Carboxylic Acid-Retinal Schiff Base Hydrogen Bonds with Large Proton Polarizability	<i>Helmut Merz and Georg Zundel</i>	819
Sequence and Expression of a Novel Murine Interferon- α Gene—Homology with Enhancer Elements in the Regulatory Region of the Gene	<i>Michel Dion, Guilane Vojdani, and Janine Doly</i>	826
Identification of a Disulfide-Bonded 70 kDa Type X Procollagen in Embryonic Chick Sternum Cartilage	<i>S. A. Jimenez, V. H. Rao, A. M. Reginato, and R. Yankowski</i>	835
Involvement of Lipoygenases in the Activation of Mouse Macrophages by Endotoxin	<i>Ulrich F. Schade</i>	842
Bovine Cardiac Mitochondrial ADP/ATP Carrier: Two Distinct mRNAs and an Unusually Short 3'-Noncoding Sequence	<i>Ulla B. Rasmussen and Hartmut Wohlrab</i>	850
Expression of the c-Ha-ras and c-myc Genes in Aflatoxin B ₁ -Induced Hepatocellular Carcinomas	<i>Fumio Tashiro, Shigeru Morimura, Kenshi Hayashi, Reiko Makino, Hideki Kawamura, Nobuo Horikoshi, Kiyomitsu Nemoto, Koichiro Ohtsubo, Takashi Sugimura, and Yoshio Ueno</i>	858
Activation of Protein Kinase C by Ganglioside GM3 in the Presence of Calcium and 12-O-Tetradecanoylphorbol-13-acetate	<i>Takashi Momoi</i>	865
p-Diazobenzoyl Biocytin—A New Biotinylating Reagent for the Labeling of Tyrosines and Histidines in Proteins	<i>Meir Wilchek, Haya Ben-Hur, and Edward A. Bayer</i>	872
Synthesis and Activity Profiles of Atrial Natriuretic Peptide (ANP) Analogs with Reduced Ring Size	<i>P. W. Schiller, F. Bellini, G. Dionne, L. A. Maziak, R. Garcia, A. DeLéan, and M. Cantin</i>	880
A Pertussis/Cholera toxin-Sensitive N Protein May Mediate Chemoattractant Receptor Signal Transduction	<i>Margrieth Verghese, Ronald J. Uling, and Ralph Snyderman</i>	887
Cyclic AMP-Dependent Protein Kinase Activity and Protein Phosphorylation in Zones of the Adrenal Cortex	<i>Keiji Mikami and Charles A. Strott</i>	895
Demonstration of Glucuronic Acid on Brain Glycoproteins Which React with HNK-1 Antibody	<i>Victor E. Shashoua, Peter F. Daniel, Mary E. Moore, and Firoze B. Jungalwala</i>	902
Supercoil-Dependent Recognition of Specific DNA Sites by Chromosomal Protein HMG 2	<i>Andrew P. Butler</i>	910
Calcium-Dependent Activation of Glycogen Phosphorylase in Rat Pheochromocytoma PC12 Cells by Nerve Growth Factor	<i>Lydia H. Davis and Frederick C. Kauffman</i>	917
Differences between the Binding of Trypsin and Chymotrypsin by α_1 -Proteinase Inhibitor	<i>Albert Hercz</i>	925
Destabilization of Target-Sensitive Immunoliposomes by Antigen Binding—A Rapid Assay for Virus	<i>Rodney J. Y. Ho, Barry T. Rouse, and Leaf Huang</i>	931
Uptake of Irradiated Human Low Density Lipoprotein by Cultured Chinese Hamster V79 Cells	<i>Jean R. Philpott, Surendra P. Verma, and Peck-Sun Lin</i>	938
Efficient Screening of Recombinant DNA Junctions Afforded by Probing with Synthetic "Bridge" Oligonucleotides	<i>Adrian Recinos III and R. Stephen Lloyd</i>	945
The Effect of Mevinolin on Cytosolic Acetoacetyl Coenzyme A Thiolase Activity in Chinese Hamster Ovary Fibroblasts	<i>Robin Schnitzer-Polokoff</i>	953
Control of PTH Secretion Is Mediated through Calcium Channels and Is Blocked by Pertussis Toxin Treatment of Parathyroid Cells	<i>Lorraine A. Fitzpatrick, Maria L. Brandi, and Gerald D. Aurbach</i>	960
Characterization of Human Genomic DNA Sequences Homologous to the Interleukin 2 cDNA	<i>Shuji Mita, Shuichiro Maeda, and Kazunori Shimada</i>	966
Stimulation of Normal Human Fibroblast Collagen Production and Processing by Transforming Growth Factor- β	<i>John Varga and Sergio A. Jimenez</i>	974
Type 1, 2A, and 2B Myosin Heavy Chain Electrophoretic Analysis of Rat Muscle Fibers	<i>D. Danieli Betto, E. Zerbatto, and R. Betto</i>	981

Acyl Transferase and Fatty Acid Coenzyme A Synthetase Activities within Bovine Rod Outer Segments	<i>William F. Zimmerman and Susan Keys</i>	988
Transcriptional Regulation of the Transferrin Receptor in Differentiating HL-60 Leukemic Cells	<i>Peter T.C. Ho, Ivan King, and Alan C. Sartorelli</i>	995
A Human-Mouse Hybrid Cell Line That Stably Expresses Chemotaxis to N-Formylmethionyl-leucyl-phenylalanine	<i>Robert R. Aksamit</i>	1001
Modulation of Fluoropyrimidine Metabolism by Chlorpromazine	<i>A. Tseng, Jr., M. Brooks, and E. Cadman</i>	1009

Volume 138, Number 3, August 14, 1986

AUTHOR INDEX, Volume 138, Number 3, August 14, 1986		ii
Novel Prolactin-Related mRNAs in Rat Pituitary Cells	<i>Eyvind J. Paulssen, Peter Aleström, Berit T. Johansen, Moimir Kriz, Lennart Philipson, and Kaare M. Gautvik</i>	1015
Insulin-like Growth Factor I (IGF I) Receptor Autophosphorylation and Kinase Activity; Effect of a Human Polyclonal Antibody (pIgG)	<i>Renzo Cordera, Roberto Gherzi, Roberto De Pirro, Gabriella Andraghetti, Gary R. Freidenberg, Francesco Minuto, Renato Lauro, Giulio Giordano, and Luciano Adezati</i>	1023
Differential Effect of Sodium Butyrate on Cyclic AMP Phosphodiesterase Activities in Butyrate-Sensitive and -Resistant Mastocytoma Cells	<i>Yoichi Mori, Yumiko Tanigaki, Atsuko Yamaguchi, and Hitoshi Akedo</i>	1030
Phylogenetic Study of Transcortin Using Monoclonal Antibodies	<i>Dirk Faict and Pieter De Moor</i>	1037
Characterization of Structural Unit of Phospholamban by Amino Acid Sequencing and Electrophoretic Analysis	<i>Junichi Fujii, Masaaki Kadoma, Michihiko Tada, Hiroko Toda, and Fumio Sakiyama</i>	1044
Poly(ADP-ribose) Biosynthesis and Suicidal NAD ⁺ Depletion following Carcinogen Exposure of Mammalian Cells	<i>Rafael Alvarez-Gonzalez, Ralph Eichenberger, and Felix R. Althaus</i>	1051
Inhibition of Natural Killer Cell Activity of Human Lymphocytes by Eicosapentaenoic Acid	<i>Naohiro Yamashita, Akihito Yokoyama, Tomohito Hamazaki, and Saburo Yano</i>	1058
Dynamic Assessment of Hexose Monophosphate Shunt Activity in the Intact Rabbit Lens by Proton NMR Spectroscopy	<i>James A. Willis, Wanda F. Williams, and Thomas Schleich</i>	1068
Induction of Mammalian Stress Proteins by a Triethylphosphine Gold Compound Used in the Therapy of Rheumatoid Arthritis	<i>Madelyn M. Caltabiano, Thomas P. Koestler, George Poste, and Russell G. Greig</i>	1074
Failure of cAMP to Replace ACTH in Overriding the Melanosome Aggregation Effect of Epinephrine	<i>Carl R. Clark, John D. Taylor, and T. T. Tchen</i>	1081
Presence of 2-Amino-3,8-dimethylimidazo-[4,5-f]quinoxaline (MeIQx) in Dialysate from Patients with Uremia	<i>Hiroyuki Yanagisawa, Shigeo Manabe, Yasuhisa Kitagawa, Shinsuke Ishikawa, Katsuyuki Nakajima, and Osamu Wada</i>	1084
Phosphatidylinositol Liposomes Opsonized by Concanavalin A Stimulate Phosphatidylinositol Turnover in Macrophages	<i>Nabila M. Wassef and Carl R. Alving</i>	1090
Activation of NADPH-Oxidase by Arachidonic Acid Involves Phospholipase A ₂ in Intact Human Neutrophils but Not in the Cell-free System	<i>Isabelle Maridonneau-Parini and Alfred I. Tauber</i>	1099
pH Measurements by ³¹ P NMR in Bacterial Suspensions Using Phenyl Phosphonate as a Probe	<i>W. J. Thoma, J. G. Steiert, R. L. Crawford, and K. Uğurbil</i>	1106
Cloning of <i>Lentinus edodes</i> Mitochondrial DNA Fragment Capable of Autonomous Replication in <i>Saccharomyces cerevisiae</i>	<i>Yūichi Katayose, Kazuo Shishido, and Masatake Ohmura</i>	1110

Levels of Topoisomerase II and DNA Polymerase α Are Regulated Independently in Developing Neuronal Nuclei	<i>Kimiko Tsutsui, Ken Tsutsui, Hiroko Sakurai, Toshikiyo Shohmori, and Takuzo Oda</i>	1116
Demonstration of Elevated Type I and Type III Procollagen mRNA Levels in Cutaneous Wounds Treated with Helium-Neon Laser: Proposed Mechanism for Enhanced Wound Healing	<i>David Saperia, Edward Glassberg, Richard F. Lyons, R. Patrick Abergel, Philippe Baneux, John C. Castel, Richard M. Dwyer, and Jouni Uitto</i>	1123
A Homodimer of the β -Subunits of Inhibin A Stimulates the Secretion of Pituitary Follicle Stimulating Hormone	<i>Nicholas Ling, Shao-Yao Ying, Naoto Ueno, Shunichi Shimasaki, Frederick Esch, Mari Hotta, and Roger Guillemin</i>	1129
Prolactin Administration Stimulates Rat Hepatic DNA Synthesis	<i>Arthur R. Buckley, Charles W. Putnam, David W. Montgomery, and Diane Haddock Russell</i>	1138
Kinetics of Fluid-Phase Pinocytosis in <i>Dictyostelium discoideum</i> Amoebae	<i>Gérard Klein and Michel Satre</i>	1146
Sarcoplasmic Reticulum Interacts with the Ca^{2+} Indicator Precursor Fura-2-am	<i>Stefan Highsmith, Peggy Bloebaum, and Kenneth W. Snowdowne</i>	1153
On Tight Junction Structure: Forssman Glycolipid Does Not Flow between MDCK Cells in an Intact Epithelial Monolayer	<i>Guy E. Nichols, Cheryl A. Borgman, and William W. Young, Jr.</i>	1163
Bay K 8644, a Voltage-Sensitive Calcium Channel Agonist, Facilitates Secretion of Atrial Natriuretic Polypeptide from Isolated Perfused Rat Hearts	<i>Yoshihiko Saito, Kazuwa Nakao, Narito Morii, Akira Sugawara, Shozo Shiono, Takayuki Yamada, Hiroshi Itoh, Makoto Sakamoto, Kazuyoshi Kurahashi, Motohatsu Fujiwara, and Hiroo Imura</i>	1170
Rapid Expression of Novel Proteins in Goldfish Retina following Optic Nerve Crush	<i>Keith A. Cauley, Thomas G. Sherman, Thomas Ford-Holevinski, and Bernard W. Agranoff</i>	1177
Analogues of Thyrotropin-Releasing Hormone: Hypotheses Relating Receptor Binding to Net Excitation of Spinal Lower Motor Neurons	<i>E. F. Hawkins, S. R. Beydoun, C. K. Haun, and W. K. Engel</i>	1184
Inhibin A-Subunit Gene Expression in the Ovaries of Immature Female Rats Is Stimulated by Pregnant Mare Serum Gonadotrophin	<i>Susan R. Davis, Fiona Dench, Irene Nikolaidis, Judith A. Clements, Robert G. Forage, Zygmunt Krozowski, and Henry G. Burger</i>	1191
β -Adrenergic Binding Is Increased by Melatonin and α -Adrenergic Compounds	<i>Floyd W. Sweat, Barbara A. Gower, Patricia G. Berger, and Norman C. Negus</i>	1196
DNA Breakage of Human Leukemia Cells by Clomiphene, an Ovulation-Inducing Agent	<i>Yasuhiro Ohashi</i>	1203
Albumin Does Not Inhibit Endothelium-Dependent Relaxation	<i>George Thomas, Radman Mostaghim, and Peter W. Ramwell</i>	1211
Transferrin Receptor Cycling by Human Lymphoid Cells: Lack of Effect from Inhibition of Microtubule Assembly	<i>David W. Hedley and Elizabeth A. Musgrove</i>	1216
Growth Hormone-Releasing Hormone and Clonidine Stimulate Biosynthesis of Growth Hormone in Neonatal Pituitaries	<i>Maria Grazia Cozzi, Antonia Zanini, Vittorio Locatelli, Silvano G. Cella, and Eugenio E. Müller</i>	1223
Platelet-Activating Factor in Normal Rat Uterus	<i>Katsuhiko Yasuda, Kiyoshi Satouchi, and Kunihiro Saito</i>	1231
An Ubiquinone-Binding Protein in Mitochondrial NADH-Ubiquinone Reductase (Complex I)	<i>Hiroshi Suzuki and Takayuki Ozawa</i>	1237
EPR Studies Show That All Lanthanides Do Not Have the Same Order of Binding to Calmodulin	<i>Jeanne M. Buccigross and Donald J. Nelson</i>	1243
[^3H]Tetrodotoxin Binding in Neuronal and Nonneuronal Spinal Cord Cultures	<i>Marcia J. Litzinger, Alain Lombet, Douglas E. Brenneman, and Michel Lazdunski</i>	1250

Volume 135, Number 1, February 26, 1986

AUTHOR INDEX, Volume 135, Number 1, February 26, 1986	ii
Endogenous "Ouabain-like" Activity in Bovine Plasma <i>Daniel M. Tal, Silvia Katchalsky, David Lichtstein, and Steven J. D. Karlisch</i>	1
Intracellular Free Calcium Transients Induced by Norepinephrine in Rat Aortic Smooth Muscle Cells in Primary Culture <i>Yoshito Shogakiuchi, Hideo Kanaide, Sei Kobayashi, Junji Nishimura, and Motoomi Nakamura</i>	9
Inhibition of Macrophage Secretion by Tetanus Toxin Is Not Directly Linked to Cytosolic Calcium Homeostasis <i>John L. Ho and Mark S. Klempner</i>	16
[³ H]Phenamil, a Radiolabeled Diuretic for the Analysis of the Amiloride-Sensitive Na ⁺ Channels in Kidney Membranes <i>Pascal Barbry, Christian Frelin, Paul Vigne, Edward J. Cragoe, Jr., and Michel Lazdunski</i>	25
The Glucocorticoid Dexamethasone and the Tumor-Promoting Artificial Sweetener Saccharin Stimulate Protein Kinase C from T51B Rat Liver Cells <i>Leonard P. Kleine, James F. Whitfield, and Alton L. Boynton</i>	33
Circulating Factor with Ouabain-like Immunoreactivity in Patients with Primary Aldosteronism <i>F. Masugi, T. Ogihara, T. Hasegawa, A. Tomii, M. Nagano, K. Higashimori, K. Kumahara, and Yoshitake Terano</i>	41
Inositol 1,4,5-Trisphosphate-Induced Ca ²⁺ Release from Permeabilized Mastocytoma Cells <i>Yoshinori Muto, Toyohiko Tohmatsu, Shiro Yoshioka, and Yoshinori Nozawa</i>	46
PDGF Modifies Phosphoinositide Metabolism and Inhibits Aggregation and Release in Human Platelets <i>Marie Claude Bryckaert, Francine Rendu, Gérard Tobelem, and Jacques Caen</i>	52
Interaction of Spermine with Polyphosphoinositides Containing Liposomes and Myoinositol 1,4,5-Triphosphate <i>B. Tadolini and E. Varani</i>	58
Protein Kinase C Desensitization by Phorbol Esters and Its Impact on Growth of Human Breast Cancer Cells <i>Doriano Fabbro, Romano Regazzi, Serban D. Costa, Christoph Borner, and Urs Eppenberger</i>	65
Decreased Content in Left Atrium and Increased Plasma Concentration of Atrial Natriuretic Polypeptide in Spontaneously Hypertensive Rats (SHR) and SHR Stroke Prone <i>Narito Morii, Kazuwa Nakao, Masahiro Kihara, Akira Sugawara, Makoto Sakamoto, Yukio Yamori, and Hiroo Imura</i>	74
Localization of a Highly Immunogenic Region on the Acetylcholine Receptor α -Subunit <i>Miry C. Souroujon, Drorit Neumann, Sergio Pizzighella, Anat Safran, and Sara Fuchs</i>	82
Antiprogesterin-Receptor Complexes: Differences in the Interaction of the Antiprogesterin RU38,486 and the Progesterin R5020 with the Progesterone Receptor of Human Breast Cancer Cells <i>Alaka Mullick and Benita S. Katzenellenbogen</i>	90
Progesterin-Induced Down Regulation of Nuclear Estrogen Receptor in Uterine Decidual Cells: Analysis of Receptor Synthesis and Turnover by the Density-Shift Method <i>Akihiro Takeda and Wendell W. Leavitt</i>	98
Expression of c-myc Oncogene in Human Fibroblasts during <i>in Vitro</i> Senescence <i>Roger Dean, Seong Soo Kim, and Dora Delgado</i>	105
Decrease of NADH in HeLa Cells in the Presence of Transferrin or Ferricyanide <i>P. Navas, I. L. Sun, D. J. Morré, and F. L. Crane</i>	110
Anticarcinogenic Effect of Retinoids on 7,12-Dimethylbenz[a]anthracene-Induced Mammary Tumor Induction, and Its Relationship to Cyclic AMP-Dependent Protein Kinase <i>Hussein Abou-Issa and Valentine A. Duruibe</i>	116
Specific, Covalent Binding of an Azidoretinoid to Cellular Retinoic Acid-Binding Protein <i>C. A. Martin, M. I. Dawson, A. M. McCormick, and J. L. Napoli</i>	124
Salvage of 5'-Deoxy-5'-methylthioadenosine and L-Homocysteine into Methionine in Cells Cultured in a Methionine-Free Medium: A Study of "Methionine Dependence" <i>Laurence Christa, Joëlle Kersual, Joëlle Auge, and Jean-Louis Perignon</i>	131

Table of Contents

Tissue Distribution of Leukotriene A ₄ Hydrolase Activity in Guinea Pig	<i>Takashi Izumi, Takao Shimizu, Yousuke Seyama, Nobuya Ohishi, and Fumimaro Takaku</i>	139
Redistribution of Protein Kinase C during Mitogenesis of Human B Lymphocytes	<i>Graeme R. Guy, John Gordon, Leonie Walker, Robert H. Michell, and Geoffrey Brown</i>	146
Identification of the Amino Acid Bound to the Labile Adduct Formed during Inactivation of Monoamine Oxidase by 1-Phenylcyclopropylamine	<i>Richard B. Silverman and Paul A. Zieske</i>	154
Glucocorticoids and the Isolated Rat Hepatocyte	<i>C. J. Lovell-Smith and P. Garcia-Webb</i>	160
Evidence of the Peroxidase-Dependent Oxygen Transfer from Hydrogen Peroxide to Sulfides	<i>Shohei Kobayashi, Minoru Nakano, Toshio Goto, Tokuji Kimura, and A. Paul Schaap</i>	166
Histamine Activates H ₁ Receptors to Induce Cytosolic Free Calcium Transients in Cultured Vascular Smooth Muscle Cells from Rat Aorta	<i>Takahiro Matsumoto, Hideo Kanaide, Junji Nishimura, Yoshito Shogakiuchi, Sei Kobayashi, and Motoomi Nakamura</i>	172
Purification of a High-Molecular-Weight Somatomedin Binding Protein from Human Plasma	<i>Gösta Enberg</i>	178
Isolation, Characterization, and Thiol Exchange Reaction of Penicillamine Selenotrisulfides	<i>T. Nakagawa, Y. Hasegawa, Y. Yamaguchi, H. Tanaka, M. Chikuma, H. Sakurai, and M. Nakayama</i>	183
Undesirable Features of Safranin as a Probe for Mitochondrial Membrane Potential	<i>Valderez G. R. Valle, Lucia Pereira-da-Silva, and Anibal E. Vercesi</i>	189
Protein Kinase Activation of Heparin-Releasable Lipoprotein Lipase in Rat Heart	<i>Lawrence B. Oscai, Roseann A. Caruso, and Warren K. Palmer</i>	196
Inactivation of B ₁₂ and Folate Coenzymes by Butyl Nitrite as Observed by NMR: Implications on One-Carbon Transfer Mechanism	<i>M. Abu Khaled, Charles L. Watkins, and Carlos L. Krumdieck</i>	201
Characterization of the Guinea Pig Adipocyte Thyrotropin Receptor	<i>Sharon E. Gennick, Colin G. Thomas, Jr., and Shihadeh N. Nayfeh</i>	208
Peroxidative Free-Radical Formation and O-Demethylation of Etoposide (VP-16) and Teniposide (VM-26)	<i>Nissim Haim, John Roman, Josef Nemec, and Birandra K. Sinha</i>	215
The Allergenicity of Complex Cations	<i>Karin U. Schallreuter and John M. Wood</i>	221
Receptors for Insulin-like Growth Factors and Insulin on Murine Fetal Cortical Brain Cells	<i>Christiaan F. H. Van Schravendijk, Elisabeth L. Hooghe-Peters, Jan L. Van den Brande, and Daniël G. Pipeleers</i>	228
Direct Phosphorylation of the IL-2 Receptor Tac Antigen Epitope by Protein Kinase C	<i>Masaaki Taguchi, Thomas P. Thomas, Wayne B. Anderson, and William L. Farrar</i>	239
An Efficient and Prolonged <i>in Vitro</i> Translational System from Isolated Cucumber Etioplasts	<i>H. Daniell, M. Krishnan, U. Uma Bai, and A. Gnanam</i>	248
Identification of a Dephosphorylated Oxidation Product of the Molybdenum Cofactor as 2-(1,2-Dihydroxyethyl)thieno[3,2-g]pterin	<i>Kazutoshi Ushio, Morio Ishizuka, Motoji Kogushi, Saburo Fukui, and Tetsuo Toraya</i>	256
Oncogene Expression in Human Hepatoma Cells PLC/PRF/5	<i>Yoshiharu Motoo, Massoud Mahmoudi, Kurt Osther, and Arthur P. Bollon</i>	262
Inhibition of Mitochondrial NADH Dehydrogenase by Pyridine Derivatives and Its Possible Relation to Experimental and Idiopathic Parkinsonism	<i>Rona R. Ramsay, James I. Salach, Jahan Dadgar, and Thomas P. Singer</i>	269
Phorbol Esters Enhance Basal and Stimulated Adenylate Cyclase Activity in a Pituitary Cell Line	<i>Stephen T. Summers and Michael J. Cronin</i>	276

Table of Contents

Involvement of GTP-Regulatory Protein in Brain Prostaglandin E ₂ Receptor and Separation of the Two Components	<i>Noboru Yumoto, Michiyo Hatanaka, Yasuyoshi Watanabe, and Osamu Hayaishi</i>	282
Infectious RNA Transcripts from Cloned cDNAs of Cucumber Mosaic Viral Satellites	<i>Candace Whitmer Collmer and J. M. Kaper</i>	290
Isolation and Characterization of a Carcinoma-Associated Antigen	<i>Alonzo H. Ross, Dorothee Herlyn, Dimitrios Iliopoulos, and Hilary Koprowski</i>	297
Biochemical and Immunologic Studies on the Native and Deglycosylated Forms of γ -Glutamyltranspeptidase of Rat Kidney	<i>Julio Coloma and Henry C. Pitot</i>	304
Multiple Forms of Sulfmyoglobin as Detected by ¹ H Nuclear Magnetic Resonance Spectroscopy	<i>Mariann J. Chatfield, Gerd N. La Mar, Alan L. Balch, and Juliette T. J. Lecomte</i>	309
Proteins Encoded by <i>ras</i> Oncogenes Stimulate or Inhibit Phosphorylation of Specific Mitochondrial Membrane Proteins	<i>J. M. Backer and I. B. Weinstein</i>	316
The Interaction of Calmodulin with Rat Liver Plasma Membrane	<i>Monika Gloor and Paolo Gazzotti</i>	323
Prevention of Doxorubicin-Induced Killing of MCF-7 Human Breast Cancer Cells by Oxygen-Radical Scavengers and Iron-Chelating Agents	<i>James H. Doroshow</i>	330
Hexapeptide Repeat Structure in <i>Dictyostelium</i> Spore Coat Protein	<i>Barbara C. A. Dowds and William F. Loomis</i>	336
Ribonucleotides Are Channeled into a Mixed DNA-RNA Polymer by Permeabilized Hamster Cells	<i>G. Prem veer Reddy, Elaine M. Klinge, and Arthur B. Pardee</i>	340

Volume 135, Number 2, March 13, 1986

AUTHOR INDEX, Volume 135, Number 2, March 13, 1986		ii
Identification of the Ribosomal Proteins Phosphorylated by the Ribosome-Associated Casein Kinase Type II from Cryptobiotic Gastrulae of the Brine Shrimp <i>Artemia</i> sp.	<i>Chris Thoen, Erik De Herdt, and Herman Slegers</i>	347
Possible Involvement of Protein Kinase C in Interleukin-1 Production by Mouse Peritoneal Macrophages	<i>Yuko Katakami, Yoshinobu Nakao, Toshimitsu Matsui, Tamio Koizumi, Kozo Kaibuchi, Yoshimi Takai, and Takuo Fujita</i>	355
¹⁷ O NMR Investigation of the Hydration of L-Alanine and L-Proline in Water/Me ₂ SO Mixtures	<i>Alberto Spisni, Efstathios D. Gotsis, and Daniel Fiat</i>	363
Isolation and Characterization of Two 70-kDa Modulator Complexes from Rabbit Skeletal Muscle	<i>Jackie R. Vandenheede, Carline Vanden Abeele, and Wilfried Merlevede</i>	367
Amino Acid Sequence Homology among Fructose-1,6-bisphosphatases	<i>Frank Marcus, Brigitte Gontero, Peter B. Harrsch, and Judith Rittenhouse</i>	374
Characteristics of Pre-S2 Region of Hepatitis B Virus	<i>Szecheng J. Lo, Ming-Lii Chen, Mei-Ling Chien, and Yan-Hwa Wu Lee</i>	382
Rapid Degradation of Steroid Sulfatase in Multiple Sulfatase Deficiency	<i>Allen L. Horwitz, Larry Warshawsky, Judy King, and Gary Burns</i>	389
Staurosporine, a Potent Inhibitor of Phospholipid/Ca ²⁺ -Dependent Protein Kinase	<i>Tatsuya Tamaoki, Hisayo Nomoto, Isami Takahashi, Yuzuru Kato, Makoto Morimoto, and Fusao Tomita</i>	397
Arachidonic Acid Strongly Stimulates Prostaglandin I ₃ (PGI ₃) Production from Eicosapentaenoic Acid in Human Endothelial Cells	<i>Jean-Claude Bordet, Michel Guichardant, and Michel Lagarde</i>	403
The Effect of Nalidixic Acid on Expression from Related <i>E. coli</i> Promoters	<i>G. L. Herrin, Jr., and G. N. Bennett</i>	411
The Interaction of Calmodulin with Melittin	<i>Cornelio G. Caday and Robert F. Steiner</i>	419
Detection of a Tyrosine Kinase in Human Sera and Blood Cells by pp60 ^{src} Antiserum	<i>Astrid Haas, Irmtraud Heller, and Peter Presek</i>	426

Table of Contents

Protein Kinase C and Nonfunctional EGF Receptor in <i>K-ras</i> Transformed Cells	
<i>Chu Chang Chua and Roger L. Ladda</i>	435
[³ H]Mepyramine Binding to Histamine H ₁ Receptors in Bovine Retina	
<i>Lourdes Arbonés, Enrique Claro, Fernando Picatoste, and Agustina García</i>	445
Oxidation of Lysine Side-Chains of Elastin by the Myeloperoxidase System and by Stimulated Human Neutrophils	
<i>Robert A. Clark, Susan Szot, Marcia A. Williams, and Herbert M. Kagan</i>	451
The Nonclassical Insulin Binding of Insulin Receptors from Rat Liver Is Due to the Presence of Two Interacting α -Subunits in the Receptor Complex	
<i>Arno Deger, Helmut Krämer, Reinhard Rapp, Rüdiger Koch, and Ulrich Weber</i>	458
Chlorpromazine Induces Accumulation of Inositol Phosphates in C6 Glioma Cells	
<i>Ubaldo Leli and George Hauser</i>	465
Selective Covalent Modification of Newly Synthesized Activation-Induced Sialoglycoconjugates on the T-Lymphocyte Membrane	
<i>Ehud Roffman and Meir Wilchek</i>	473
Identification and Solubilization of Atrial Natriuretic Factor Receptors in Human Placenta	
<i>Indira Sen</i>	480
Interleukin 2 (IL-2) Rapidly Induces Phosphorylation of a Cellular Protein, pp67, in an IL-2-Dependent Murine Cell Line	
<i>Takehisa Ishii, Kazuo Sugamura, Masataka Nakamura, and Yorio Hinuma</i>	487
Generation of Hybridomas Producing Human Monoclonal Antibodies against Herpes Simplex Virus after <i>in Vitro</i> Stimulation	
<i>Yasuhiko Masuho, Tohru Sugano, Yoh-ichi Matsumoto, Shuzo Sawada, and Katsuhiko Tomibe</i>	495
Chronic Treatment with Phenobarbital Decreases the Expression of Rat Liver EGF and Insulin Receptors	
<i>David L. Hwang, Avraham Roitman, Arye Lev-Ran, and Brian I. Carr</i>	501
Bradykinin Induces a Rapid Release of Inositol Trisphosphate from a Neuroblastoma Hybrid Cell Line NCB-20 That Is Not Antagonized by Enkephalin	
<i>Paul C. Francel and Glyn Dawson</i>	507
The Lung as a Possible Target Organ for Atrial Natriuretic Polypeptide Secreted from the Heart	
<i>Makoto Sakamoto, Kazuwa Nakao, Narito Morii, Akira Sugawara, Takayuki Yamada, Hiroshi Itoh, Shozo Shiono, Yoshihiko Saito, and Hiroo Imura</i>	515
Expression of <i>C-myc</i> Oncogene during Differentiation of Human Burst-Forming Unit, Erythroid (BFU-E)	
<i>Tsukuru Umemura, Kenichi Umene, Junji Nishimura, Yasuyuki Fukumaki, Yoshiyuki Sakaki, and Hiroshi Ibayashi</i>	521
Proteolipid in Bovine Lung Surfactant: Its Role in Surfactant Function	
<i>Akio Takahashi and Tetsuro Fujiwara</i>	527
Characterization of an Insulin-Related Factor Secreted by a Teratoma Cell Line	
<i>Yukio Yamada and Ginette Serrero</i>	533
Human Brain-Derived Acidic and Basic Fibroblast Growth Factors: Amino Terminal Sequences and Specific Mitogenic Activities	
<i>Guillermo Gimenez-Gallego, Greg Conn, Victor B. Hatcher, and Kenneth A. Thomas</i>	541
³¹ P-NMR Spectra of the Ha-ras p21 Nucleotide Complexes	
<i>P. Rösch, A. Wittinghofer, J. Tucker, G. Sczakiel, R. Leberman, and I. Schlichting</i>	549
Phorbol 12-Myristate 13-Acetate Potentiates the Respiratory Burst While It Inhibits Phosphoinositide Hydrolysis and Calcium Mobilization by Formyl-methionyl-leucyl-phenylalanine in Human Neutrophils	
<i>Vittorina Della Bianca, Mirosława Grzeskowiak, Marco A. Cassatella, Lucia Zeni, and Filippo Rossi</i>	556
H ₁ -Histaminergic Activation Stimulates Inositol-1-phosphate Accumulation in Chromaffin Cells	
<i>Ernest P. Noble, Michael Bommer, Elfi Sincini, Tommaso Costa, and Albert Herz</i>	566
Selective Antimitochondrial Agents Inhibit Calmodulin	
<i>William L. Bodden, Sanjeevani T. Palayoor, and William N. Hait</i>	574

Table of Contents

Purified Tyrosine Kinases, and EGF Receptor Kinase and the src Kinase, Can Catalyze the Phosphorylation of the Band 3 Protein from Human Erythrocytes <i>Teruo Shiba, Tetsu Akiyama, Takashi Kadowaki, Yasuo Fukami, Tsutomu Tsuji, Toshiaki Osawa, Masato Kasuga, and Fumimaro Takaku</i>	720
Nature of Atrial Natriuretic Polypeptide in Rat Brain <i>Shozo Shiono, Kazuwa Nakao, Narito Morii, Takayuki Yamada, Hiroshi Itoh, Makoto Sakamoto, Akira Sugawara, Yoshihiko Saito, Goro Katsuura, and Hiroo Imura</i>	728
Myosin Light Chain Phosphorylation and Evidence for Latchbridge Formation in Nor-epinephrine Stimulated Canine Veins <i>Mark O. Aksoy, Gwendolyn J. Stewart, and Concetta Harakal</i>	735
Dual Activation of the Inositol-Triphosphate-Calcium and Cyclic Nucleotide Intracellular Signaling Systems by Adrenocorticotropin in Rat Adrenal Cells <i>Robert V. Farese, Nenad Rosic, Jeffrey Babischkin, Margaret G. Farese, Richard Foster, and John S. Davis</i>	742
The Protein Kinase C Inhibitors H-7 and H-9 Fail to Inhibit Human Neutrophil Activation <i>Clifford D. Wright and Michael D. Hoffman</i>	749
Lipoprotein Affinity of Human Apolipoprotein A-IV during Cholesterol Esterification <i>Richard B. Weinberg and Mona S. Spector</i>	756
Effects of Prostaglandins E ₂ and F _{2α} on Progesterone Metabolism by Rat Granulosa Cells <i>Young S. Moon, Antoni J. Duleba, Ki Sun Kim, and Basil Ho Yuen</i>	764
Inhibition of [³ H]Captopril Binding by Peptide Analog Angiotensin Converting Enzyme Inhibitors <i>Lawrence Toll and Ronald G. Almquist</i>	770
Reflective Densitometry of Western Blots of Quantitate the Developmentally Regulated Accumulation of Myosin Light Chain 3 <i>Peter A. Merrifield and Irwin R. Konigsberg</i>	778
Complete Dissociation between the Activation of Phosphoinositide Turnover and of NADPH Oxidase by Formyl-methionyl-leucyl-phenylalanine in Human Neutrophils Depleted of Ca ²⁺ and Primed by Subthreshold Doses of Phorbol 12-Myristate 13-Acetate <i>Mirosława Grzeskowiak, Vittorina Della Bianca, Marco A. Cassatella, and Filippo Rossi</i>	785
Rat Liver Microsomal 3α-Hydroxysteroid Dehydrogenase and Dihydrodiol Dehydrogenase: Solubilization, Separation, and Partial Purification <i>Jean A. Boutin, Mikio Shikita, and Paul Talalay</i>	795
Role of Excess Lipoyl Dehydrogenase in Reconstituted α-Ketoglutarate Dehydrogenase Complex of <i>Escherichia coli</i> <i>Terence Wagenknecht, Noreen Francis, and David DeRosier</i>	802
Rhythmic Change of Myocardial Phosphate Metabolite Content in Cardiac Cycle Observed by Depth-Selected and EKG-Gated <i>In Vivo</i> ³¹ P-NMR Spectroscopy in a Whole Animal <i>Teruhiko Toyo-Oka, Kuniaki Nagayama, Masahiro Umeda, Keiji Eguchi, and Saichi Hosoda</i>	808
Binding Properties of β-Adrenergic Receptors in Early Human Fetal Lung <i>G. Falkay, G. Németh, and L. Kovács</i>	816
Pertussis Toxin Does Not Prevent α-Adrenergic-Stimulated Breakdown of Phosphoinositides or Respiration in Brown Adipocytes <i>Richard J. Schimmel and Mary Ellen Elliott</i>	823
Effect of Quinine on Mitochondrial K ⁺ and Mg ²⁺ Flux <i>Joyce Johnson Diwan</i>	830
Separation of Recombinant Human Interleukin 2 and Methionyl Interleukin 2 Produced in <i>Escherichia coli</i> <i>Takao Yamada, Koichi Kato, Kenji Kawahara, and Osamu Nishimura</i>	837
α-Fetoprotein Synthesis in Transformed Fetal Rat Liver Cells <i>Janice Yang Chou and Adam J. Savitz</i>	844
Phosphofructokinase and Fructosebisphosphatase from Muscle Can Interact at Physiological Concentrations with Mutual Effects on Their Kinetic Behavior <i>Judit Ovádi, Juan J. Aragón, and Alberto Sols</i>	852

Cardiac Hypertrophy Cannot Proceed without Initial Suppression of Protein Synthesis <i>Yiu-Kay Lai, Pamela A. Havre, and Graeme L. Hammond</i>	857
Primary Structure of the Nucleotide Binding Domain of the Ca,Mg-ATPase from Cardiac Sarcoplasmic Reticulum <i>F. Norman Briggs, Michael B. Cable, Michael G. Geisow, and N. Michael Green</i>	864
Affinity Isolation of the Interleukin 3 Surface Receptor <i>W. Stratford May and James N. Ihle</i>	870
Phosphatidylinositol-Dependent Activation of DNA Polymerase- α <i>V. L. Sylvia, C. O. Joe, J. O. Norman, G. M. Curtin, and D. L. Busbee</i>	880
Is Uracil Misincorporation into DNA of Mammalian Cells a Consequence of Methotrexate Treatment? <i>Douglas C. Fraser and Colin K. Pearson</i>	886
Expression of Extracellular and Intracellular Human IFN- γ in Mouse L Cells Transformed with the Human IFN- γ cDNA Gene <i>J. Sancéau, J. A. Lewis, P. Sondermeyer, F. Beranger, R. Falcoff, and C. Vaquero</i>	894
The Inactivation of <i>Bacillus thuringiensis</i> Subsp. <i>Israelensis</i> Toxin by Mosquito Larvae Proteases Liberated into the Medium <i>M. García-Patrone, R. G. Reboredo, H. N. Torres, C. Rubinstein, and A. Stoka</i>	902
Decreased Sulfation of Cellular Chondroitin Sulfate in Response to Activators of Protein Kinase C <i>Dennis L. Carson and C. Stuart Baxter</i>	909
Yeast Centromeric Plasmids as Shuttle Vectors between <i>Escherichia coli</i> , <i>Bacillus subtilis</i> , and <i>Saccharomyces cerevisiae</i> <i>Arkady L. Polumienko, Svetlana P. Grigor'eva, Alexandr A. Lushnikov, and Igor V. Domaradskij</i>	915
Oxidation of an Organosulfur Xenobiotic by Microsomes from Soybean Cotyledons <i>Elizabeth Blee and Francis Durst</i>	922
Rapid Electrocatalytic Procedure for Hydrogenase Kinetic Determination in the H ₂ Evolution Direction <i>Patrick Boivin and Christian Bourdillon</i>	928
A Calmodulin-Dependent Ca ²⁺ -Activated K ⁺ Channel in the Adipocyte Plasma Membrane <i>Harrihar A. Pershadsingh, R. Dane Gale, Dennis M. Delfert, and Jay M. McDonald</i>	934
Methylation Analysis of a Plasmid Containing a Mammalian Cell Cycle Regulatory Sequence after Transient Transfection into the Host Cell <i>Amy S. Lee, Steven Wells, and Angelo M. Delegeane</i>	942
Type Beta Transforming Growth Factor (TGF- β) Is a Potent Stimulator of the Basal Secretion of Follicle Stimulating Hormone (FSH) in a Pituitary Monolayer System <i>Shao-Yao Ying, Ann Becker, Andrew Baird, Nicholas Ling, Naoto Ueno, Frederick Esch, and Roger Guillemin</i>	950
Structure of Two Human Ovarian Inhibins <i>Anthony J. Mason, Hugh D. Niall, and Peter H. Seeburg</i>	957
Covalent Change of Major Intrinsic Polypeptide (MIP26K) of Lens Membrane during Human Senile Cataractogenesis <i>L. Takemoto and M. Takehana</i>	965
A Possible Model of Hemoprotein-Peroxide Complexes Formed in an Iron-Tetraphenylporphyrin System <i>K. Tajima, K. Ishizu, H. Sakurai, and H. Ohya-Nishiguchi</i>	972
Identification of Two Activities of (ADP-Ribose) _n Glycohydrolase in HeLa S3 Cells <i>Sei-ichi Tanuma, Kohtaro Kawashima, and Hiroyoshi Endo</i>	979
Comparative Biological Activities of ANF (Arg 101-Tyr 126) and the Synthetic Form of Circulating ANF (Ser 99-Tyr 126) <i>Raul Garcia, Marc Cantin, André De Léan, Jacques Genest, Jean Godin, Jolanta Gutkowska, Ernesto L. Schiffrin, and Gaétan Thibault</i>	987
Diazepam Inhibits Potassium-Induced Aldosterone Secretion in Adrenal Glomerulosa Cells <i>Hiroshi Shibata, Itaru Kojima, and Etsuro Ogata</i>	994
Isolation of Fumarate Reductase from <i>Desulfovibrio multispirans</i> , a Sulfate Reducing Bacterium <i>S. H. He, D. V. DerVartanian, and J. LeGall</i>	1000
Solubilization and Further Chromatographic Purification of Highly Purified, Membrane-Bound, Na,K-ATPase <i>Paul Ottolenghi, Jens. G. Nørby, and Jørgen Jensen</i>	1008
A New Potent Inhibitor of Lipid Peroxidation <i>in Vitro</i> and <i>in Vivo</i> , the Hepatoprotective Drug Anisoyldithiolthione <i>Daniel Mansuy, Amor Sassi, Patrick M. Dansette, and Michel Plat</i>	1015

Table of Contents

Reduced Rhodopsin Phosphorylation during Retinal Dystrophy	
<i>Dolores J. Takemoto, Jess Cunnick, and Larry J. Takemoto</i>	1022
Primaquine Can Mediate Hydroxyl Radical Generation by <i>Trypanosoma cruzi</i> Extracts	
<i>Ohara Augusto, Maria J. M. Alves, Water Colli, Leny S. Filardi, and Zigman Brener</i>	1029
Rat Atrial Natriuretic Factor Suppresses Proopiomelanocortin-Derived Peptide Secretion from Both Anterior and Intermediate Lobe Cells and Growth Hormone Release from Anterior Lobe Cells of Rat Pituitary <i>in Vitro</i>	
<i>Tamotsu Shibasaki, Mitsuhide Naruse, Naoko Yamauchi, Akitsugu Masuda, Toshihiro Imaki, Kiyoko Naruse, Hiroshi Demura, Nicholas Ling, Tadashi Inagami, and Kazuo Shizume</i>	1035
Expression and Secretion of Hepatitis B Viral Surface Antigen in <i>E. coli</i>	
<i>Yan-Hwa Wu Lee, Yao-Tsung Tung, and Szecheng J. Lo</i>	1042
Demonstration of a Fluorometrically Distinguishable Intermediate in Calcium Binding by Calmodulin-Mastoparan Complexes	
<i>Dean A. Malencik and Sonia R. Anderson</i>	1050
Labile Oligomeric Structure of Human Placental 15-Hydroxyprostaglandin Dehydrogenase	
<i>Tetsuji Tanaka, Tomio Kotani, Sachiya Ohtaki, Kimihiro Nagai, Kenichi Tsuruta, and Norimasa Mori</i>	1058
Copper-Albumin: What Is Its Functional Role?	
<i>Stuart H. Laurie and David E. Pratt</i>	1064
<i>In Vitro</i> Transformation of Androgen Receptor from Murine Skeletal Muscle by cAMP	
<i>Beatus Offenloch-Hähnle, Manuel Kunst, and Karl Eisele</i>	1069
Prolactin Receptor Regulation by LH in the Rat Mammary Gland	
<i>P. Guillaumot, I. Sabbagh, J. Bertrand, and H. Cohen</i>	1076
Growth Hormone Releasing Factor-like Immunoreactivity in Human Milk	
<i>Haim Werner, Tanchum Amarant, Mati Fridkin, and Yitzhak Koch</i>	1084
Mechanisms of Release of Atrial Natriuretic Factor. I. Effect of Several Agonists and Steroids on Its Release by Atrial Minces	
<i>Danielle Lachance, Raul Garcia, Jolanta Gutkowska, Marc Cantin, and Gaétan Thibault</i>	1090
Inhibitory Action of Cyclic GMP on Secretion, Polyphosphoinositide Hydrolysis and Calcium Mobilization in Thrombin-Stimulated Human Platelets	
<i>Shigeru Nakashima, Toyohiko Tohmatsu, Hiroaki Hattori, Yukio Okano, and Yoshinori Nozawa</i>	1099
Influence of Dipeptides on the Interaction of Immunoglobulins with Bacterial Fc Receptors	
<i>Michele Yarnall and Michael D. P. Boyle</i>	1105
Sequential Expression of Proto-Oncogenes during a Mouse Erythroleukemia Cell Differentiation	
<i>Kazuo Todokoro and Yoji Ikawa</i>	1112
Phorbol Esters, but Not Insulin, Promote Depletion of Cytosolic Protein Kinase C in Rat Adipocytes	
<i>Brendan P. Glynn, Julie W. Colliton, Joan M. McDermott, and Lee A. Witters</i>	1119
A Novel Mass Spectrometric Procedure to Rapidly Determine the Position of <i>O</i> -Acylated Residues in the Sequence of Naturally Occurring Oligosaccharides	
<i>Anne Dell and Philip R. Tiller</i>	1126
Localization of the Exchangeable Nucleotide Binding Domain in β -Tubulin	
<i>Jyoti P. Nath and Richard H. Himes</i>	1135
Immunocytochemical Evidence for Phorbol Ester-Induced Protein Kinase C Translocation in HL60 Cells	
<i>Mamoru Shoji, Peggy R. Girard, Gonzalo J. Mazzei, William R. Vogler, and J. F. Kuo</i>	1144
ERRATA	
Volume 133, Number 3, December 31, 1985: Béla Karvaly, Jerzy Jankun, Shephali Trivedi, Biswanath Mallik, and Gabor Kemeny, "Discrete Charge Carrier Transfer Sites on Proteins? A D.C. Conductivity Study on Ultrathin Protein Films," pp. 1152-1159	1150

Table of Contents

Volume 134, Number 3, February 13, 1986: Takayuki Ozawa, Mika Hayakawa, Tadanobu Takamura, Satoru Sugiyama, Kiyoshi Suzuki, Masaru Iwata, Fumio Taki, and Tadao Tomita, "Biosynthesis of Leukotoxin 9, 10-Epoxy-12 Octadecenoate, by Leukocytes in Lung Lavages of Rat after Exposure to Hyperoxia," pp. 1071-1078	1151
Author Index for Volume 135	1152

Volume 136, Number 1, April 14, 1986

AUTHOR INDEX, Volume 136, Number 1, April 14, 1986	ii
Degradation of DNA by Metalloanthracyclines: Requirement for Metal Ions <i>Yitbarek H. Mariam and Gwendolyn P. Glover</i>	1
Dexamethasone and Estrogen Regulate <i>Xenopus laevis</i> Albumin mRNA Levels <i>Cynthia L. Jackson and David J. Shapiro</i>	8
The ATP, Mg-Dependent Phosphatase: Role of Mg Ions in the Expression of the Phosphorylase Phosphatase Activity <i>Jackie R. Vandenheede, Carline C. Vanden Abeele, and Wilfried Merlevede</i>	16
The EH ₂ Reduced Intermediate of Glutathione Reductase Contains Oxidized Flavin While EH ₄ Does Not <i>Chris R. Lively and James T. McFarland</i>	22
β -Transforming Growth Factor Is Stored in Human Blood Platelets as a Latent High Molecular Weight Complex <i>Renée Pircher, Pierre Jullien, and David A. Lawrence</i>	30
Delayed Appearance of Liver Growth Hormone Binding Sites and of Growth Hormone-Induced Somatomedin Production during Rat Development <i>B. Flandez, E. Alvarez, and E. Blázquez</i>	38
The Ligand Binding Subunit of the Insulin-like Growth Factor I Receptor Has Properties of a Peripheral Membrane Protein <i>Paul F. Pilch, Timothy O'Hare, Joshua Rubin, and Marianne Boni-Schnetzler</i>	45
Involucrin Acts as a Transglutaminase Substrate at Multiple Sites <i>Yuzuro Etoh, Marcia Simon, and Howard Green</i>	51
Synthesis and Secretion of Nerve Growth Factor by Mouse Astroglial Cells in Culture <i>Shoei Furukawa, Yoshiko Furukawa, Eijiro Satoyoshi, and Kyozo Hayashi</i>	57
Aurintricarboxylic Acid and Evans Blue Represent Two Different Classes of Anionic Compounds Which Selectively Inhibit the Cytopathogenicity of Human T-Cell Lymphotropic Virus Type III/Lymphadenopathy-Associated Virus <i>Jan Balzarini, Hiroaki Mitsuya, Erik De Clercq, and Samuel Broder</i>	64
Sequential Binding of Actin Monomers to Plasma Gelsolin and Its Inhibition by Vitamin D-Binding Protein <i>Paul A. Janmey, Thomas P. Stossel, and Stuart E. Lind</i>	72
Selective Labeling of Functional Groups on Membrane Proteins or Glycoproteins Using Reactive Biotin Derivatives and ¹²⁵ I-Streptavidin <i>Ehud Roffman, Leonid Meromsky, Haya Ben-Hur, Edward A. Bayer, and Meir Wilchek</i>	80
<i>In Vitro</i> Transcription of a Chromatin-like Complex of Major Core Protein VII and DNA of Adenovirus Serotype 2 <i>Yoshinobu Nakanishi, Kaeko Maeda, Masahiko Ohtsuki, Kei-ichi Hosokawa, and Shunji Natori</i>	86
Tumor Necrosis Factor Stimulates Interleukin 1 and Prostaglandin E ₂ Production in Resting Macrophages <i>P. R. Bachwich, S. W. Chensue, J. W. Larrick, and S. L. Kunkel</i>	94
Evidence for FGF-like Growth Factor in Adult Bovine Retina: Analogies with EDGF I <i>J. Courty, B. Chevallier, M. Moenner, C. Loret, O. Lagente, P. Bohlen, Y. Courtois, and D. Barritault</i>	102
<i>In Vitro</i> Translation of Chicken Type X Collagen in the Presence of Pancreas Microsomes <i>P. Castagnola, F. Descalzi Cancedda, and R. Cancedda</i>	109
Isolation of a Ketosugar-Specific Agglutinin from Rat Uterus <i>Mridula Chowdhury</i>	116
Messenger RNA for a Phorbol Ester-Induced 48,000-Da Protein from Human Melanoma Cells <i>Ghislain Opendakker, Fons Bosman, Jo Van Damme, and Alfons Billiau</i>	122

Table of Contents

Dexamethasone Inhibits Antitumor Potential of Activated Macrophages by a Receptor-Mediated Action	<i>T. Grand Perret and G. Lemaire</i>	130
Demonstration of Corticotropin-Releasing Factor Binding Sites on Human and Rat Erythrocyte Membranes and Their Modulation by Chronic Ethanol Treatment in Rats	<i>Jitendra R. Dave and Robert L. Eskay</i>	137
Naturally Occurring Masked Antibodies in Murine Sera Recognize a Component of the Mitotic Spindle Apparatus	<i>Theodore W. Munns, M. Kathryn Liszewski, and Sandra K. Freeman</i>	145
Phosphorylation-Dephosphorylation Process as a Probable Mechanism for the Diurnal Regulatory Changes of Phosphoenolpyruvate Carboxylase in CAM Plants	<i>J. Brulfert, J. Vidal, P. Le Marechal, P. Gadal, O. Queiroz, M. Kluge, and I. Kruger</i>	151
pH Dependent Insertion of a Diphtheria Toxin B Fragment Peptide into the Lipid Membrane: A Conformational Analysis	<i>Robert Brasseur, Véronique Cabiaux, Paul Falmagne, and Jean-Marie Ruyschaert</i>	160
Stereochemical Difference between 12-Hydroxy-5,8,10,14-eicosatetraenoic Acid in Platelets and Psoriatic Lesions	<i>P. M. Woollard</i>	169
Phorbol Esters Stimulate Phosphate Accumulation Synergistically with A23187 in Cultured Renal Tubular Cells	<i>Yoshikazu Kinoshita, Masaaki Fukase, Toshiyuki Yamatani, Ruo Hishikawa, and Takuo Fujita</i>	177
Biosynthesis of Reovirus-Specified Polypeptides. Molecular cDNA Cloning and Nucleotide Sequence of the Reovirus Serotype 1 Lang Strain s4 mRNA Which Encodes the Major Capsid Surface Polypeptide $\sigma 3$	<i>Jonathan A. Atwater, Susan M. Munemitsu, and Charles E. Samuel</i>	183
Difference in Effects of Pirenzepine and Atropine on Carbachol-Induced Pepsinogen Secretion from Isolated Gastric Glands	<i>Choitsu Sakamoto, Takashi Matozaki, Munehiko Nagao, and Shigeaki Baba</i>	193
Difference in Molecular Size of Receptors for α -Rat Atrial Natriuretic Polypeptide among the Kidney, Aorta, and Adrenal Gland as Identified by Direct UV-Photoaffinity Labeling	<i>Chizuko Koseki, Yujiro Hayashi, Norio Ohnuma, and Masashi Imai</i>	200
Varying Brain Insulin Concentrations Differentially Regulate the Fetal Brain Insulin Receptor	<i>Sherin U. Devaskar, Lynn Karycki, and Uday P. Devaskar</i>	208
H ₂ O ₂ -Dependent Decolorization of Poly R-481 by Particulate Fractions from <i>Phanerochaete chrysosporium</i>	<i>Richard V. Green and J. Michael Gould</i>	220
Differential Mechanisms of Translocation of Protein Kinase C to Plasma Membranes in Activated Human Neutrophils	<i>S. Pontremoli, E. Melloni, M. Michetti, F. Salamino, B. Sparatore, O. Sacco, and B. L. Horecker</i>	228
Immunological Identification of <i>aa</i> ₃ -Type Cytochrome Oxidase in Membrane Preparations of the Cyanobacterium <i>Anacystis nidulans</i>	<i>Maria Trnka and Günter A. Peschek</i>	235
Stimulation of Superoxide Release in Neutrophils by 1-Oleoyl-2-acetyl-glycerol Incorporated into pH-Sensitive Liposomes	<i>Byron E. Tsusaki, Susumu Kanda, and Leaf Huang</i>	242
Effects of Prostaglandins on the Cytosolic Free Calcium Concentration in Vascular Smooth Muscle Cells	<i>Keisuke Fukuo, Shigeto Morimoto, Eio Koh, Shiro Yukawa, Hiroyasu Tsuchiya, Shunji Imanaka, Hideki Yamamoto, Toshio Onishi, and Yuichi Kumahara</i>	247
Affinity Chromatography with Amniotic Fluid Somatomedin-Binding Protein in the Purification of Insulin-like Growth Factor I	<i>Guilherme Póvoa, Gunilla Wennberg, and Kerstin Hall</i>	253
Lipid Transfer Protein from <i>Manduca sexta</i> Hemolymph	<i>Robert O. Ryan, Michael A. Wells, and John H. Law</i>	260
Bicarbonate Exchange Kinetics at Equilibrium across the Erythrocyte Membrane by ¹³ C NMR	<i>Bogdan E. Chapman, Kiaran Kirk, and Philip W. Kuchel</i>	266

Yeast Provides No Evidence for the Association of Hexokinase with Mitochondria," pp. 285-291	843
Volume 135, Number 2, March 13, 1986: Ushio Kikkawa, Masayoshi Go, Junko Koumoto, and Yasutomi Nishizuka, "Rapid Purification of Protein Kinase C by High-Performance Liquid Chromatography," pp. 636-643	844
Volume 136, Number 3, May 14, 1986	
AUTHOR INDEX, Volume 136, Number 3, May 14, 1986	ii
Calcium Channel Blockers Stimulate LDL Receptor Synthesis in Human Skin Fibroblasts <i>Ivan Filipovic and Eckhart Buddecke</i>	845
Effects of Ketoconazole on Sterol Biosynthesis by <i>Trypanosoma cruzi</i> Epimastigotes <i>David H. Beach, L. John Goad, and George G. Holz, Jr.</i>	851
The Staining of Type V Collagen Obtained from FBJ Virus-Induced Osteosarcoma with Concanavalin A <i>Sadako Yamagata and Tatsuya Yamagata</i>	857
Evidence that Phosphoinositide Response Is Mediated by α_1 -Adrenoceptor Stimulation, but Not Linked with Excitation-Contraction Coupling in Cardiac Muscle <i>Hajime Otani, Hitomi Otani, Richard M. Engelman, and Dipak K. Das</i>	863
Crystal Structure of Z-Aib-Aib-Ala-Ala-Aib-OtBu, a Hexapeptide Fragment of Trichotoxin <i>Michael Kokkinidis, Demetrius Tsernoglou, and Hans Brückner</i>	870
There Are Two Gene Sequences for Human Apolipoprotein CI (APO CI) on Chromosome 19, One of Which Is 4 KB from the Gene for APO E <i>P. J. Davison, P. Norton, S. C. Wallis, L. Gill, M. Cook, R. Williamson, and S. E. Humphries</i>	876
Studies on Binding of Toromycin, an Antitumor Antibiotic, to DNA <i>Kazuo Shishido, Ken-ichi Joho, Masakazu Uramoto, Kiyoshi Isono, and Tikam Jain</i>	885
The Kinetic and Structural Changes of the Mitochondrial F_1 -ATPase with Temperature <i>A. Baracca, G. Curatola, G. Parenti Castelli, and G. Solaini</i>	891
The Effect of Anionic Detergents on the ATPase Activity of Isolated F_1 from the Thermophilic Bacterium PS3 <i>Birgitta Norling</i>	899
Characterization and Properties of Mg^{2+} Uptake and Release from Guinea Pig Cerebral Cortex Synaptosomes <i>Franco Zoccarato and Adolfo Alexandre</i>	906
Presence of Phosphatidylserine in the Outer Membrane Bilayer of Newborn Human Erythrocytes <i>Sushil K. Jain</i>	914
Cooperation of Mitogenic Growth Factors with Polyoma Virus Middle T Antigen in Transformation of Secondary Cultured Rat Cells <i>Kaoru Segawa</i>	921
Agonist-Induced Calcium Transients in Cultured Smooth Muscle Cells: Measurements with Fura-2 Loaded Monolayers <i>Elwood E. Reynolds and George R. Dubyak</i>	927
The Electrophysiological Expression of Ca^{2+} Channels and of Apamin-Sensitive Ca^{2+} -Activated K^+ Channels Is Abolished in Skeletal Muscle Cells from Mice with Muscular Dysgenesis <i>G. Romey, F. Rieger, J. F. Renaud, M. Pinçon-Raymond, and M. Lazdunski</i>	935
Internalization of the Spin-Labeled Surface Potential Probe CAT_{12} by Energized Mitochondria <i>Lech Wojtczak and Adam Szewczyk</i>	941
Atrial Natriuretic Peptide Elevates cGMP Contents in Glomeruli and in Distal Tubules of Rat Kidney <i>Shigeyuki Takeda, Eiji Kusano, Naoki Murayama, Yasushi Asano, Saichi Hosoda, Hirofumi Sokabe, and Hiroyuki Kawashima</i>	947
Cloning and Expression in <i>Escherichia coli</i> of cDNA for Arginase of Rat Liver <i>Susumu Kawamoto, Yoshihiro Amaya, Toshiaki Oda, Takashi Kuzumi, Takeyori Saheki, Sadao Kimura, and Masataka Mori</i>	955
Modulation of Smooth Muscle Actomyosin ATPase by Thin Filament Associated Proteins <i>Kurumi Y. Horiuchi, Hidetake Miyata, and Samuel Chacko</i>	962
Inhibin and Beta Type Transforming Growth Factor ($TGF\beta$) Have Opposite Modulating Effects on the Follicle Stimulating Hormone (FSH)-Induced Aromatase Activity of Cultured Rat Granulosa Cells <i>Shao-Yao Ying, Ann Becker, Nicholas Ling, Naoto Ueno, and Roger Guillemin</i>	969

Effects of the <i>Vibrio cholerae</i> Siderophore Vibriobactin on the Growth Characteristics of L1210 Cells	<i>Raymond J. Bergeron, Raul Braylan, Stacia Goldey, and Michael Ingeno</i>	273
The Use of Monoclonal Antibody to Study the Functional Properties of RNA Polymerase II Subunits	<i>Barkur S. Shastry</i>	281
Phosphorylation of Erythrocyte Membrane Liberates Calcium	<i>Ved P. S. Chauhan and Hans Brockerhoff</i>	288
Stacking and Hydrogen Bonding Interactions between Phenylalanine and Guanine Nucleotide: Crystal Structure of L-Phenylalanine-7-methylguanosine-5'-monophosphate Complex	<i>Toshimasa Ishida, Katsuhisa Kamiichi, Ayako Kuwahara, Mitsunobu Doi, and Masatoshi Inoue</i>	294
Human Breast Cancer Cells Synthesize and Secrete an EGF-like Immunoreactive Factor in Culture	<i>Kazutoshi Mori, Masayuki Kurobe, Shoei Furukawa, Kanji Kubo, and Kyoza Hayashi</i>	300
TSH-Stimulated Increases in Calcium Uptake and Calmodulin Levels in Thyroid Cells	<i>Nobuyuki Takasu, Keishi Yamauchi, Masafumi Katakura, Takashi Yamada, and Yoshifusa Shimizu</i>	306
A Possible Requirement for Arachidonic Acid Lipoxygenation in the Mechanism of Phagocytic Degranulation by Human Neutrophils Stimulated with Aggregated Immunoglobulin G	<i>Robert J. Smith, Fred S. Yein, Susan C. Speziale, and Barbara J. Bowman</i>	310
Recombinant Tumor Necrosis Factor Depresses Cytochrome P-450-Dependent Microsomal Drug Metabolism in Mice	<i>Pietro Ghezzi, Beatrice Saccardo, and Marina Bianchi</i>	316
Inhibition of SV40 DNA Replication <i>in Vitro</i> by 1-N-Acyl-3"-N-(trifluoroacetyl) Kanamycin	<i>Hiroshi Yamaki, Hiroyoshi Ariga, and Nobuo Tanaka</i>	322
A Bacteriophage-Associated Glycanase Cleaving β -Pyranosidic Linkages of 3-Deoxy-D-manno-2-octulosonic Acid (KDO)	<i>Friedrich Altmann, Bartłomiej Kwiatkowski, Stephan Stirm, Leopold März, and Frank M. Unger</i>	329
Wheat Germ Phosphoglycerate Mutase: Evidence for a Metalloenzyme	<i>George C. Smith, Andrew D. McWilliams, and Louis F. Haas</i>	336
Sequence of Human DNA Polymerase β -mRNA Obtained through cDNA Cloning	<i>D. N. SenGupta, B. Z. Zmudska, P. Kumar, F. Cobianchi, J. Skowronski, and S. H. Wilson</i>	341
Cell-Free Synthesis and Characterization of Human Adrenocortical Pro-adrenodoxin	<i>O. Pascal, N. Monnier, and E. M. Chambaz</i>	348
Ultraviolet Light-Induced Crosslinking of Two Major Phosphoproteins and Poly(A) ⁺ RNA from Free Polyribosomes; Changes in Phosphorylation by Inhibitors of Transcription and Translation	<i>Anton Schweiger, Günther Kostka, and Ellen Weiss</i>	356
A Guanine Nucleotide-Dependent Regulatory Protein Couples Substance P Receptors to Phospholipase C in Rat Parotid Gland	<i>Colin W. Taylor, Janet E. Merritt, James W. Putney, Jr., and Ronald P. Rubin</i>	362
P-450 _{11β} -Dependent Conversion of Cortisol to Cortisone, and 19-Hydroxy-androstenedione to 19-Oxoandrostenedione	<i>Katsuko Sahara, Kenji Takeda, and Masayuki Katagiri</i>	369
Interaction of Anti-iron-Sulfur Protein and Anti-ubiquinone-Binding Protein Antibodies with Complex III of Beef Heart Mitochondria	<i>Takeshi Sakurai, Yoshiharu Shimomura, Morimitsu Nishikimi, and Takayuki Ozawa</i>	376
Activation of Protein Kinase C Inhibits Sodium Fluoride-Induced Elevation of Human Platelet Cytosolic Free Calcium and Thromboxane B ₂ Generation	<i>Chris Poll, Paul Kyrle, and John Westwick</i>	381
Peptide Hydroxamic Acids Inhibit Skin Collagenase	<i>William M. Moore and Curtis A. Spilburg</i>	390

Table of Contents

Structure and Analysis of the Bovine Atrial Natriuretic Peptide Precursor Gene <i>George P. Vlasuk, Judith Miller, Gerard H. Bencen, and John A. Lewicki</i>	396
Binding of recA Protein from <i>Escherichia coli</i> to Double-Stranded DNA: Influence of the Degree of Superhelicity <i>Marie Chabbert, Christian Cazenave, Tula Saison-Behmoaras, and Claude Helene</i>	404
Increased Plasma Immunoreactive Atrial Natriuretic Factor Concentrations in Salt Sensitive Dahl Rats <i>Jolanta Gutkowska, Otto Kuchel, Karoly Racz, Nguyen T. Buu, Marc Cantin, and Jacques Genest</i>	411
Copper Induces Luteinizing Hormone Release and Desensitization of Pituitary Gonadotropes <i>Iris Schwartz and Eli Hazum</i>	417
Covalent Linkage of Phosphoinositides to Myelin Basic Protein: <i>In Vivo</i> Occurrence and <i>In Vitro</i> Studies with Experimental Allergic Encephalomyelitis <i>Ken C. Chiu, Frederick Westall, and Roberts A. Smith</i>	426
Enhanced Superoxide Dismutase Activity of Pulsed Cytochrome Oxidase <i>Ali Naqui and Britton Chance</i>	433
Circular Dichroism Studies of Cobalt Substituted Lentil Lectin <i>Emilie Stafford, W. David Behnke, Lokesh Bhattacharyya, and C. Fred Brewer</i>	438

Volume 136, Number 2, April 29, 1986

AUTHOR INDEX, Volume 136, Number 2, April 29, 1986	ii
Aspects on the Phosphorylation of Muscle Phosphofructokinase by Protein Kinase C—Inhibition by Phosphofructokinase Stabilizers <i>Folke A. Nettelblad, Per-Olof Forsberg, Elisabet Humble, and Lorentz Engström</i>	445
Stereochemistry of Estrogen Biosynthesis by a Reconstituted Aromatase Cytochrome P-450 Preparation from Human Placenta <i>Norio Muto and Liat Tan</i>	454
Bacterial Adenylate Cyclase Increases Cyclic AMP and Hormone Release in Pituitary Tumor Cells <i>J. Weiss, E. L. Hewlett, and M. J. Cronin</i>	463
Evidence for Differences in the Steroid Binding Domains of the Glucocorticoid Receptor versus the Idiotypic Antibody <i>M. K. Agarwal and E. Cayanis</i>	470
Micromolar Concentrations of Zn^{2+} Potentiates Ca^{2+} -Induced Phase Separation of Phosphatidyl Serine Containing Liposomes <i>Michel Deleers, Jean-Paul Servais, and Ernst Wulfert</i>	476
The Interaction of Myelin Basic Protein with Tubulin and the Inhibition of Tubulin Carboxypeptidase Activity <i>Nidia M. Modesti and Héctor S. Barra</i>	482
The Interaction of Phosphate with the Purple Acid Phosphatase from Beef Spleen: Evidence that Phosphate Binding Is Accompanied by Oxidation of the Iron Chromophore <i>S. Burman, J. C. Davis, M. J. Weber, and B. A. Averill</i>	490
Effects of Diabetes on Fructose 2,6- P_2 , Glucose 1,6- P_2 , and 6-Phosphofructo 2-Kinase in Rat Liver <i>Joan Gil, José Carreras, and Ramon Bartrons</i>	498
Differences in the Cellular Location of Substances Endocytosed by Rat Liver as Observed from the Distribution Patterns Obtained after Isopycnic Centrifugation in a Sucrose Gradient <i>Robert Wattiaux, Michel Jadot, Sandra Misquith, Franz Dubois, and Simone Wattiaux-De Coninck</i>	504
Mechanisms of Release of Atrial Natriuretic Factor. II. Effect of Chronic Administration of α - and β -Adrenergic and Cholinergic Agonists on Plasma and Atrial ANF in the Rat <i>Raul Garcia, Danielle Lachance, Gaétan Thibault, Marc Cantin, and Jolanta Gutkowska</i>	510
Mitoxantrone Affects Topoisomerase Activities in Human Breast Cancer Cells <i>Martin D. Crespi, Sofia E. Ivanier, Jorge Genovese, and Alberto Baldi</i>	521
The Kanamycin Resistance Gene Expression in <i>Escherichia coli</i> as Affected by Specific Yeast Sequences <i>Arkady L. Polumienko, Svetlana P. Grigor'eva, Alexandr A. Lushnikov, and Igor V. Domaradskij</i>	529
An Immunological Study of a Pb-Thionein-like Protein in Rat Liver <i>Hideharu Ikebuchi, Reiko Teshima, Kazuhiro Suzuki, Jun-ichi Sawada, Tadao Terao, and Yasuhiro Yamane</i>	535

Tetrahydromethanopterin Methyltransferase, a Component of the Methane Synthesizing Complex of <i>Methanobacterium thermoautotrophicum</i>	F. D. Sauer	542
Hereditary Cerebral Amyloid Angiopathy: The Amyloid Fibrils Contain a Protein Which Is a Variant of Cystatin C, an Inhibitor of Lysosomal Cysteine Proteases	Jorge Ghiso, Bernardo Pons-Estel, and Blas Frangione	548
Resorufin Inhibits the <i>in Vitro</i> Metabolism and Mutagenesis of Benzo[a]pyrene	Joseph E. Jablonski and Paul D. Sullivan	555
α -L-Fucosidase from <i>Aspergillus niger</i> : Demonstration of a Novel α -L-(1 \rightarrow 6)-Fucosidase Acting on Glycopeptides	Shin Yazawa, Ragupathy Madiyalakan, Ramanik P. Chawda, and Khushi L. Matta	563
Purification and Partial Characterization of Microsomal Cytochrome <i>b</i> ₅₅₅ from the Higher Plant <i>Catharanthus roseus</i>	K. Madhava Madyastha and N. Krishnamachary	570
Tetrathionate Reductase of <i>Samonella thyphimurium</i> : A Molybdenum Containing Enzyme	M. Hinojosa-Leon, M. Dubourdieu, J. A. Sanchez-Crispin, and M. Chippaux	577
Prostaglandin Release by the Chick Embryo Heart Is Increased by 2,3,7,8-Tetrachlorodibenzo- <i>p</i> -Dioxin and by Other Cytochrome <i>P</i> -448 Inducers	Caroline P. Quilley and Arleen B. Rifkind	582
Atrial Natriuretic Factor Is Released from Rat Hypothalamus <i>in Vitro</i>	Tamotsu Shibasaki, Mitsuhide Naruse, Kiyoko Naruse, Akitsugu Masuda, Young Seol Kim, Toshihiro Imaki, Naoko Yamauchi, Hiroshi Demura, Tadashi Inagami, and Kazuo Shizume	590
Release of a Lectin from a Fatty Acid Auxotroph of <i>Saccharomyces cerevisiae</i> Grown in Presence of Oleic Acid	Joyoti Basu, Manikuntala Kundu, Krishna Mukherjee, and Parul Chakrabarti	596
Effects of Acidotropic Compounds on the Secretory Pathway: Inhibition of Secretion and Processing of the Third and Fourth Components of Complement	Glen Hortin and Arnold W. Strauss	603
Spectroscopic Characterization of Plastocyanin from Hornwort	Shinnichiro Suzuki, Satoshi Sawada, Akitsugu Nakahara, and Takuo Nakajima	610
The EPR Spectra of the Cytochrome <i>b</i> - <i>c</i> ₁ Complex of <i>Rhodopseudomonas sphaeroides</i>	John C. Salerno, John P. McCurley, Jian-Hua Dong, Margaret F. Doyle, Linda Yu, and Chang-An Yu	616
Carbachol-Induced Accumulation of Inositol-1-phosphate in Neurohybridoma NCB-20 Cells: Effects of Lithium and Phorbol Esters	De-Maw Chuang	622
The Role of Thioredoxin Reductase in the Reduction of Free Radicals at the Surface of the Epidermis	Karin U. Schallreuter and John M. Wood	630
Induction of Insulin Release in Fibroblasts Transfected with Genomic Rat Islet DNA	Benjamin Y. Klein, Rafael Nesher, and Erol Cerasi	638
DNA Strand Scission by Hemin-Thiolate Complexes as Models of Cytochrome <i>P</i> -450	Hiromu Sakurai, Masayuki Shibuya, Chiharu Shimizu, Shigeru Akimoto, Mitsuko Maeda, and Koichi Kawasaki	645
Comparison of the Regulatory and Catalytic Subunits of cAMP Dependent Protein Kinase from <i>Dictyostelium discoideum</i> and Bovine Heart Using Polyclonal Antibodies	Michel Chevalier, Jean de Gunzburg, and Michel Veron	651
Spin-Trapping of Superoxide Ion by a Water-Soluble, Nitroso-Aromatic Spin-Trap	Toshihiko Ozawa and Akira Hanaki	657
Amyloid Kidney Stones of Uremic Patients Consist of β_2 -Microglobulin Fragments	Reinhold P. Linke, Jürgen Bommer, Eberhard Ritz, Rüdiger Waldherr, Manfred Eulitz	665
Quantitation of Elastin through Measurement of Its Pentapeptide Content	Lawrence B. Sandberg, Terril B. Wolt, John G. Leslie	672
Sites of Phosphorylation in Recombinant Human Interferon- γ	Tsutomu Arakawa, Carol Graham Parker, and Por-Hsiung Lai	679
Enrichment and Characterization of Angiotensin II Using Affinity and High Pressure Liquid Chromatography. I. Affinity, Purification, and Characterization of Ang II Antiserum	K. Hermann, B. Kimura, and M. I. Phillips	685

Table of Contents

Elevation of Plasma CCK Concentration after Intestinal Administration of a Pancreatic Enzyme Secretion-Stimulating Peptide Purified from Rat Bile-Pancreatic Juice: Analysis with N-Terminal Region Specific Radioimmunoassay	Kazuo Iwai, Shin-Ichi Fukuoka, Tohru Fushiki, Tsukasa Kodaira, and Nobuhiro Ikei	701
Novel Pathway for the Metabolism of 6-trans-Leukotriene B ₄ by Human Polymorphonuclear Leukocytes	William S. Powell	707
Partial Purification of Phosphoinositide Phospholipase C from Human Platelet Cytosol, Characterization of Its Three Forms	Yoshiko Banno, Shigeru Nakashima, and Yoshinori Nozawa	713
Restriction Maps and Restriction Fragment Length Polymorphisms of the Human 21-Hydroxylase Genes	Patricia A. Donohoue, Nicholas Jospe, Claude J. Migeon, Robert H. McLean, Wilma B. Bias, Perrin C. White, and Cornelis Van Dop	722
In Vitro Activity Profiles of Cyclic and Linear Enkephalin Pseudopeptide Analogs	Judson V. Edwards, Arno F. Spatola, Carole Lemieux, and Peter W. Schiller	730
Interferon α/β Selectively Antagonizes Down-Regulation of Mannosyl-Fucosyl Receptors on Activated Macrophages by Interferon γ	R. Alan B. Ezekowitz, M. Hill, and S. Gordon	737
Effect of Chronic Administration of Doxorubicin on Cardiac Adenylate Cyclase Activity in Mice	Timothy W. Robison and Shri N. Giri	745
A New Sialoglycoprotein from Rat Seminal Vesicle and Its Association with Semen Coagulum	Tipaporn Limpaseni and Montri Chulavatnatol	753
A Postmeiotically Expressed Clone Encodes Lactate Dehydrogenase Isozyme X	Shigeo Tanaka and Hirokazu Fujimoto	760
Influence of Voltage and ATP on Ion-channel of (Na,K)ATPase Incorporated into Solvent-free Phospholipid Planar Bilayers	Noriyuki Kumazawa, Takeshi Tsujimoto, and Yoshihiro Fukushima	767
Identification of Two New Calcium-Dependent Hydrolases in the Human Heart	Uichi Ikeda, Teruhiko Toyo-Oka, and Saichi Hosoda	773
Epoxidation of Alkenes by Chloroperoxidase Catalysis	John Geigert, Terry D. Lee, Demetrios J. Daliotos, David S. Hirano, and Saul L. Neidleman	778
[H ³]Nitrendipine Binding in Nonneuronal Cell Cultures	Marcia J. Litzinger, George Foster, and Douglas E. Brennehan	783
A Multisubstrate Ca ²⁺ and Cyclic Nucleotide Independent Kinase from Vascular Smooth Muscle: Modulation of Activity by Polycations	Joseph Di Salvo, Donetta Gifford, and Anastasia Kokkinakis	789
In Vitro Translation Products of Drosophila mitochondria Are Contaminated with Newly Synthesized Bacterial Proteins	J. E. Fleming and E. L. Kwak	797
ADP-Ribosylation of Nonmuscle Actin with Component I of C ₂ Toxin	Iwao Ohishi and Shingo Tsuyama	802
Ouabain Sensitivity Is Linked to ras-Transformation in Human HOS Cells	L. E. Benade, Neil Talbot, Pierosandro Tagliaferri, Catherine Hardy, Joye Card, Makoto Noda, Nikat Najam, and Robert H. Bassin	807
In Vivo Incorporation of [2- ³ H]myo-Inositol into Frog Opsin	Steven J. Fliesler and Robert E. Anderson	815
The Binding of N-(phosphonacetyl)-L-Aspartate to Aspartate Carbamoyltransferase of Escherichia coli	Karl W. Volz, Kurt L. Krause, and William N. Lipscomb	822
Enhanced Inositide Turnover in Brain during Bicuculline-Induced Status Epilepticus	Lucio A. A. Van Rooijen, Robert Vadnal, Paul Dobard, and Nicolas G. Bazan	827
Distribution and Characterization of Cyclo(His-Pro)-like Immunoreactivity in Human Cerebrospinal Fluid	Chandan Prasad, Tokuji Iriuchijima, Jayashree K. Rao, John F. Wilber, and A. Jayaraman	835

ERRATA

Volume 134, Number 1, January 14, 1986: Ladislav Kovác, B. Dean Nelson, and Lars Ernster, "A Method for Determining the Intracellular Distribution of Enzymes in

Table of Contents

The Effects of a Calcium and a Sodium Ionophore on Protein Synthesis Inhibition by a Bovine Cell Surface Sialoglycopeptide	
<i>Behrooz G. Sharifi, Charles C. Bascom, and Terry C. Johnson</i>	976
The Amino Acid Sequence of Kinetensin, a Novel Peptide Isolated from Pepsin-Treated Human Plasma: Homology with Human Serum Albumin, Neurotensin, and Angiotensin	
<i>Mats H. Mogard, Ryoko Kobayashi, Chan-Fu Chen, Terry D. Lee, Joseph R. Reeve, Jr., John E. Shively, and John H. Walsh</i>	983
Cytoplasmic RNA Complementary to Pre-albumin Intron V	
<i>Gary A. Clawson, Jane D. Button, Yu-Cheng Liao, and Edward A. Smuckler</i>	989
Protein Kinase C Promotes the Phosphorylation of Immunoprecipitated Middle T Antigen from Polyoma-Transformed Cells	
<i>Leda Raptis and James F. Whitfield</i>	995
The Effects of Polymyxin B, a Protein Kinase C Inhibitor, on Insulin Secretion from Intact and Permeabilized Islets of Langerhans	
<i>Jane Stutchfield, Peter M. Jones, and Simon L. Howell</i>	1001
Diocanoylglycerol and Phorbol Diesters Enhance Phosphorylation of Phosphoprotein B-50 in Native Synaptic Plasma Membranes	
<i>J. Eichberg, P.N.E. de Graan, L. H. Schrama, and W. H. Gispen</i>	1007
DNA Breaks Generated by the Bleomycin-Iron III Complex in the Presence of KHSO ₅ , a Single Oxygen Donor	
<i>Geneviève Pratviel, Jean Bernadou, and Bernard Meunier</i>	1013
Flow Cytofluorimetry of Fluorescein Fluorescence Polarization to Assay Lymphocyte Activation	
<i>K. Dimitropoulos, J.M. Rolland, and R. C. Nairn</i>	1021
<i>N</i> -Ethylmaleimide Desensitizes pH-Dependence of K ⁺ /H ⁺ Antiporter in a Marine Bacterium, <i>Vibrio alginolyticus</i>	
<i>Tatsunosuke Nakamura, Hajime Tokuda, and Tsutomu Unemoto</i>	1030
A Possible Involvement of Glutathione in the Detoxication of Sulfite	
<i>Bertil Kågedal, Magnus Källberg, and Bo Sörbo</i>	1036
V-Fos Stimulates Expression of the α_1 (III) Collagen Gene in NIH 3T3 Cells	
<i>Chiaki Setoyama, Atsushi Hatamochi, Beverly Peterkofsky, Willie Prather, and Benoit de Crombrughe</i>	1042
Inhibition of Calcium Flux and Calcium Channel Antagonist Binding in the PC12 Neural Cell Line by Phorbol Esters and Protein Kinase C	
<i>Robert O. Messing, Celia L. Carpenter, and David A. Greenberg</i>	1049
Suppression of Glutathione S-Transferases in Rat Seminal Vesicles or Pituitary Glands	
<i>Nan-qian Li and Chen-Pei D. Tu</i>	1057
Expression of Hepatitis B Surface Antigen by Yeast Actin Gene Promoter	
<i>Ling-Pai Ting, Hsiao-Kuey Chang, and Chuen-Sheue Chiang</i>	1063
α -Adrenergic Receptors in Rat Skeletal Muscle	
<i>Stephen Rattigan, Geoffrey J. Appleby, Stephen J. Edwards, William J. McKinstry, Eric Q. Colquhoun, Michael G. Clark, and Erik A. Richter</i>	1071
The Occurrence of Cyclic AMP in Archaeobacteria	
<i>Ben H. Leichtling, Howard V. Rickenberg, Robert J. Seely, David E. Fahrney, and Norman R. Pace</i>	1078
Effect of Membrane Perturbation on Protein Kinase C Activation: Treatment with Exogenous Phospholipase C Decreases Translocation of Enzyme to Cellular Membranes	
<i>Meril J. Jones and Andrew W. Murray</i>	1083
Ca ²⁺ -Dependent Cysteine Proteinase, Calpains I and II Are Not Phosphorylated in Vivo	
<i>Yoshifumi Adachi, Nobuyuki Kobayashi, Takashi Murachi, and Masakazu Hatanaka</i>	1090
N ⁶ -Functionalized Congeners of Adenosine with High Potency at A ₂ -Adenosine Receptors: Potential Ligands for Affinity Chromatography	
<i>Kenneth A. Jacobson, Noboyuki Yamada, Kenneth L. Kirk, John W. Daly, and R. A. Olsson</i>	1097
Demonstration of High Molecular Weight Forms of Inhibin in Bovine Follicular Fluid (bFF) by Using Monoclonal Antibodies to bFF 32K Inhibin	
<i>Kaoru Miyamoto, Yoshihisa Hasegawa, Masaki Fukuda, and Masao Igarashi</i>	1103

Table of Contents

Occurrence of (ADP-Ribose) _n Glycohydrolase in Human Erythrocytes <i>Sei-ichi Tanuma, Kohtaro Kawashima, and Hiroyoshi Endo</i>	1110
Histone Messenger RNAs of the Mouse Testis <i>Robert D. Faulkner, Ethan C. Whisenant, and Yogendra M. Bhatnagar</i>	1116
Kinetic Differences between Thrombin-Induced and ADP-Induced Calcium Influx and Release from Internal Stores in Fura-2-Loaded Human Platelets <i>S. O. Sage and T. J. Rink</i>	1124
Beta Carotene Is Associated with the Regression of Hamster Buccal Pouch Carcinoma and the Induction of Tumor Necrosis Factor in Macrophages <i>Joel Schwartz, Diane Suda, and Gary Light</i>	1130
<i>Mycobacteria</i> Possess a Surprisingly Small Number of Ribosomal RNA Genes in Relation to the Size of Their Genome <i>Herve Bercovier, Orna Kafri, and Shlomo Sela</i>	1136
Further Evidence for the Role of 26 kDa Peptide as Mosquito Larvicidal Principle of the Crystalline Delta Endotoxin of <i>Bacillus thuringiensis</i> var <i>Israelensis</i> <i>R. Sriram and Kunthala Jayaraman</i>	1142
N-Alkanes Induce the Synthesis of Cytochrome P-450 mRNA in <i>Candida maltosa</i> <i>Brigitte Wiedmann, Martin Wiedmann, Eva Kärgel, Wolf-Hagen Schunck, and Hans-Georg Müller</i>	1148
Characterization of Multiple Forms of Prostatropin (Prostate Epithelial Cell Growth Factor) from Bovine Brain <i>John W. Crabb, L. Gene Armes, Charles M. Johnson, and Wallace L. McKeehan</i>	1155
Inactivation of Rat Hepatic Cytochrome P-450 by Spironolactone <i>Caroline Decker, Katsumi Sugiyama, Marilyn Underwood, and Maria Almira Correia</i>	1162
Tyr ¹ -Substituted and Fluorescent Pya ¹ -Enkephalins Bind Strongly and Selectively to μ and δ Opiate Receptors <i>Hisakazu Mihara, Sannamu Lee, Yasuyuki Shimohigashi, Haruhiko Aoyagi, Tetsuo Kato, Nobuo Izumiya, and Tommaso Costa</i>	1170
Morphine-Mimetic Anti-paratypic Antibodies: Cross-Reactive Properties <i>Jay A. Glasel and Lenore A. Pelosi</i>	1177
Impaired Contractile Responsiveness of Diabetic Glomeruli to Angiotensin II: A Possible Indication of Mesangial Dysfunction in Diabetes Mellitus <i>Ryuichi Kikkawa, Eisaku Kitamura, Yoshihiro Fujiwara, Tetsuro Arimura, Masakazu Haneda, and Yukio Shigeta</i>	1185
Author Index for Volume 136	1191

Volume 137, Number 1, May 29, 1986

AUTHOR INDEX, Volume 137, Number 1, May 29, 1986	iii
Stimulation of Phosphatidylcholine Synthesis by Insulin and ATP in Isolated Rat Adipocyte Plasma Membranes <i>Frederick L. Kiechle, Halina Malinski, Donald R. Strandbergh, and Joseph D. Artiss</i>	1
Chromate Reduction by Rabbit Liver Aldehyde Oxidase <i>R. Bruce Banks and Roger T. Cooke, Jr.</i>	8
The Anticoagulant Properties of Mast Cell Product, Chondroitin Sulfate E <i>M. F. Scully, V. Ellis, N. Seno, and V. V. Kakkar</i>	15
Activation of Phosphatidic Acid Metabolism of Human Erythrocyte Membranes by Perfringolysin O <i>Megumi Saito, Susumu Ando, Ken'ichiro Mitsui, Yoshimi Homma, and Tadaomi Takenawa</i>	23
Scavenger Receptor for Malondialdehyde-Modified High-Density Lipoprotein on Rat Sinusoidal Liver Cells <i>Masaji Murakami, Seikoh Horiuchi, Kyoko Takata, and Yoshimasa Morino</i>	29
Odorant- and Guanine Nucleotide-Stimulated Phosphoinositide Turnover in Olfactory Cilia <i>Taufiqul Huque and Richard C. Bruch</i>	36
Effect of Manipulation of Phospholipid Polar Head Group on Low-Density Lipoprotein Metabolism in Human Cultured Fibroblasts <i>C. Mazière, J. C. Mazière, L. Mora, M. Auclair, S. Salmon, and J. Polonovski</i>	43

Table of Contents

The Inhibition of Neutrophil Responsiveness Caused by Phorbol Esters Is Blocked by the Protein Kinase C Inhibitor H7	R. I. Sha'afi, T. F. P. Molski, C.-K. Huang, and P. H. Naccache	50
Further Characterization of the Low- and High-Affinity Binding Components of the Thyrotropin Receptor	Robert McQuade, Colin G. Thomas, Jr., and Shihadeh N. Nayfeh	61
Acetylsalicylic Acid Antagonizes the Bleeding-Induced Changes in Hemoglobin Proportions in Normal Adult Rats	M. C. Datta, J. Josephs, M. E. M. Tolbert, J. Anderson, and H. Dowla	69
Allopurinol Can Act as an Electron Transfer Agent: Is This Relevant during Reperfusion Injury?	D. A. Peterson, B. Kelly, and J. M. Gerrard	76
Preparation and Sequencing of the Cloacin Fragment of <i>Streptomyces aureofaciens</i> 16S RNA	Ivan Janda and Karel Mikulík	80
Solid-State ^{13}C NMR and X-Ray Diffraction of Dermatan Sulfate	William T. Winter, Michael G. Taylor, Eugene S. Stevens, Edwin R. Morris, and David A. Rees	87
Evidence for α -1 Adrenergic Receptor Regulation of Atriopeptin Release from the Isolated Rat Heart	Mark G. Currie and Walter H. Newman	94
Synergistic Effects of Micromolar Concentrations of Zn^{2+} and Ca^{2+} on Membrane Fusion	Michel Deleers, Jean-Paul Servais, and Ernst Wulfert	101
Conjugal Transfer of Hydrogen-Oxidizing Ability of <i>Alcaligenes hydrogenophilus</i> to <i>Pseudomonas oxalaticus</i>	F. Umeda, H. Min, M. Urushihara, M. Okazaki, and Y. Miura	108
Isolation of Hydrogen-Oxidation Gene from <i>Alcaligenes hydrogenophilus</i> and Its Expression in <i>Pseudomonas oxalaticus</i>	Kiyohito Yagi, Hongki Min, Masahiro Urushihara, Yoshihisa Manabe, Fusako Umeda, and Yoshiharu Miura	114
Induction by Phenobarbital in McA-RH7777 Rat Hepatoma Cells of a Polycyclic Hydrocarbon-Inducible Cytochrome P-450	Michael E. McManus, Rodney F. Minchin, Dolores M. Schwartz, Peter J. Wirth, and Brian E. Huber	120
Phytohemagglutinin Treatment of T Lymphocytes Stimulates Rapid Increases in Activity of Both Particulate and Cytosolic Protein Kinase C	Anthony R. Mire, R. Gitendra Wickremasinghe, and A. Victor Hoffbrand	128
A Substance P Antagonist Also Inhibits Specific Binding and Mitogenic Effects of Vasopressin and Bombesin-Related Peptides in Swiss 3T3 Cells	Ian Zachary and Enrique Rozengurt	135
Analysis of Sequence and Structure Homologies between Thyroglobulin and Acetylcholinesterase: Possible Functional and Clinical Significance	Stéphane Swillens, Marian Ludgate, Luc Mercken, Jacques E. Dumont, and Gilbert Vassart	142
Effect of Sustained Exercise on Concentrations of Plasma Aromatic and Branched-Chain Amino Acids and Brain Amines	I. Acworth, J. Nicholass, B. Morgan, and E. A. Newsholme	149
<i>In Vivo</i> Stimulation by Antitumor Drugs of the Topoisomerase II-Induced Cleavage Sites in c-myc Protooncogene	Jean-François Riou, Eric Multon, Marie-José Vilarem, Christian-Jacques Larsen, and Guy Riou	154
Collagen Processing in <i>ras</i> -Transfected Mouse Mammary Epithelial Cells	Michael J. Warburton, Sharon A. Ferns, and Nancy E. Hynes	161
DNA Synthesis Induced by the Neuropeptide Substance K Correlates to the Level of myc-Gene Transcripts	Jan Nilsson, Thomas Sejersen, Anna Hultgårdh Nilsson, and Carl-Johan Dalsgaard	167
Studies of Lysosomal Sialic Acid Metabolism: Retention of Sialic Acid by Salla Disease Lysosomes	Adam J. Jonas	175
Phylogenetic Distribution of [^3H]Cyclohexyladenosine Binding Sites in Nervous Tissue	Joseph F. Siebenaller and Thomas F. Murray	182

Forskolin Stabilizes a Functionally Coupled State between Activated Guanine Nucleotide-Binding Stimulatory Regulatory Protein N _s , and Catalytic Protein of the Adenylate Cyclase System in Rat Erythrocytes	<i>Atsushi Yamashita, Tomonori Kurokawa, Kyoichiro Higashi, Toshio Dan'ura, and Sadahiko Ishibashi</i>	190
Selective Inhibition of Leukotriene C ₄ Synthesis in Human Neutrophils by Ethacrynic Acid	<i>Kam H. Leung</i>	195
Regulation of the Activity of 3-Hydroxy-3-methylglutaryl Coenzyme A Reductase by Insulin	<i>Clare E. Sample and Gene C. Ness</i>	201
The Role of <i>N</i> -6-Isopentenyl Adenine in Tumor Cell Growth	<i>W. Lee Adair, Jr., and Susan L. Brennan</i>	208
Effect of Oligomeric Derivatives of Prostaglandin B ₁ on Oxidative Phosphorylation and Their Ca ²⁺ Ionophoretic Activity	<i>Thomas M. Devlin, Rosita Krupinski-Olsen, Salvador Uribe, and George E. Nelson</i>	215
Lymphocyte-Salmonella Interaction: Energy Dependence and Thiol Group Involvement	<i>Salvatore Passarella, Maria Barile, Ernesto Quagliarriello, Giovanna Caretto, Maria Costanza Cedola, and Emilio Jirillo</i>	222
A Highly Sensitive Radioimmunoassay of Atrial Natriuretic Peptide (ANP) in Human Plasma and Urine	<i>Fumiaki Marumo, Hisato Sakamoto, Kenji Ando, Tatsuzo Ishigami, and Masaya Kawakami</i>	231
Fc:Fc Interactions Revealed by Spin-Labeled IgG Heterosaccharides in Model Immune Complexes	<i>Akihiro Kusumi and Jeffrey L. Winkelhake</i>	237
DNA-Mediated Gene Transfer into Epidermal Cells Using Electroporation	<i>M. Reiss, M. M. Jastreboff, J. R. Bertino, and R. Narayanan</i>	244
Receptor Binding and Negative Cooperativity of a Mutant Insulin, [Leu ^{A3}]-Insulin.	<i>Masashi Kobayashi, Yasumitsu Takata, Osamu Ishibashi, Toshiyasu Sasaoka, Makoto Iwasaki, Yukio Shigeta, and Ken Inouye</i>	250
Decreased Expression of Liver Epidermal Growth Factor Receptors in Rats with Alloxan and Streptozotocin Diabetes	<i>A. Lev-Ran, D. L. Hwang, and G. Barseghian</i>	258
Phorbol Ester Stimulates the Synthesis and Phosphorylation of a 48-kDa Intracellular Protein in Plasminogen Activator-Secreting Melanoma Cells	<i>Fons Bosman, Ghislain Opendakker, Jo Van Damme, and Alfons Billiau</i>	263
GM ₃ Lactone or Its Conformational Analog as the High-Affinity Binding Site for Monoclonal Antibody M2590, Which Defines a Melanoma-Associated Antigen: A Preliminary Note	<i>Gustavo A. Nores, Sen-itiroh Hakomori, and Masaru Taniguchi</i>	273
Increases in Cellular Calcium Concentration Stimulate Pepsinogen Secretion from Dispersed Chief Cells	<i>J-P. Raufman, S. Berger, L. Cosowsky, and E. Straus</i>	281
Impaired Insulin Receptor Phosphorylation in Skeletal Muscle Membranes of <i>db/db</i> Mice: The Use of a Novel Skeletal Muscle Plasma Membrane Preparation to Compare Insulin Binding and Stimulation of Receptor Phosphorylation	<i>Narinder S. Shargill, Anahit Tatoyan, Mahmoud F. El-Refai, Majella Pleta, and Timothy M. Chan</i>	286
Transforming Growth Factor-Beta Inhibits Endothelial Cell Proliferation	<i>Marijke Fräter-Schröder, Gertraud Müller, Walter Birchmeier, and Peter Böhlen</i>	295
Comparative Studies on the Mechanisms of Paraquat and 1-Methyl-4-phenylpyridine (MPP ⁺) Cytotoxicity	<i>Donato Di Monte, Martha S. Sandy, Gunilla Ekström, and Martyn T. Smith</i>	303
1-Methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) and 1-Methyl-4-phenylpyridine (MPP ⁺) Cause Rapid ATP Depletion in Isolated Hepatocytes	<i>Donato Di Monte, Sarah A. Jewell, Gunilla Ekström, Martha S. Sandy, and Martyn T. Smith</i>	310
Comparative Immunoremoval: A Novel Method for Estimating the Concentration of an Unknown Immunoreactive Compound	<i>Ronald W. Barrett, Iain F. James, and Avram Goldstein</i>	316
Inhibition of Cytochrome C Oxidase by Psychosine (Galactosylsphingosine)	<i>Hideki Igisu and Michio Nakamura</i>	323

NADP Improves the Efficiency of Cholera Toxin-Catalyzed ADP-Ribosylation in Liver and Heart Membranes	<i>J. Peter Longabaugh, Dorothy E. Vatner, Robert M. Graham, and Charles J. Homcy</i>	328
Leukotriene B ₄ Production by Stimulated Whole Blood: Comparative Studies with Isolated Polymorphonuclear Cells	<i>P. Gresele, J. Arnout, M. C. Coene, H. Deckmyn, and J. Vermeylen</i>	334
PDGF-Induced Receptor Phosphorylation and Phosphoinositide Hydrolysis Are Unaffected by Protein Kinase C Activation in Mouse Swiss 3T3 and Human Skin Fibroblasts	<i>E. Sturani, L. M. Vicentini, R. Zippel, L. Toschi, A. Pandiella-Alonso, P. M. Comoglio, and J. Meldolesi</i>	343
Inhibition of Microtubule Elongation by GDP	<i>Peter M. Bayley and Stephen R. Martin</i>	351
The Interrelationships among Poly(ADP-ribosyl)ation, DNA Synthesis, and Mammary Gland Differentiation	<i>Franklyn F. Bolander, Jr.</i>	359
Immunological Studies on the Beef Heart Natural ATPase Inhibitor: Localization of an Antigenic Determinant in the Inhibitor Molecule	<i>Christophe Audinet, Anne-Christine Dianoux, and Pierre V. Vignais</i>	364
Superoxide Dismutase Mimetic Activity of Cytokinin-Copper(II) Complexes	<i>Hideshi Inoue and Masaaki Hirobe</i>	372
Transformation of OB17 Cells Promotes Proliferation and Differentiation of OB17 Preadipocytes via Distinct Extracellular Intermediates	<i>Dorota Czerucka, Paul Grimaldi, and Gérard Ailhaud</i>	378
Rundown of GH3 Cell K ⁺ Conductance Response to TRH following Patch Recording Can Be Obviated with GH3 Cell Extract	<i>Bernard Dufy, Amy MacDermott, and Jeffery L. Barker</i>	388
Phosphorylation of P36 <i>in Vitro</i> by Protein Kinase C	<i>Navin C. Khananna, Masaki Tokuda, Sarah M. Chong, and David M. Waisman</i>	397
Regulation of Macrophage Tumor Necrosis Factor Production by Prostaglandin E ₂	<i>S. L. Kunkel, R. C. Wiggins, S. W. Chensue, and J. Larrick</i>	404
Covalent Cross-Linking of Insulin-like Growth Factor-1 to a Specific Inhibitor from Human Serum	<i>Guck T. Ooi and Adrian C. Herington</i>	411
A Cloned Chromogranin A (CgA) cDNA Detects a 2.3-kb mRNA in Diverse Neuroendocrine Tissues	<i>L. J. Deftos, S. S. Murray, D. W. Burton, R. J. Parmer, D. T. O'Connor, A. M. Delegeane, and P. L. Mellon</i>	418
Neutrophils Biosynthesize Leukotoxin, 9,10-Epoxy-12-octadecenoate	<i>Mika Hayakawa, Satoru Sugiyama, Tadanobu Takamura, Kazuhisa Yokoo, Masaru Iwata, Kiyoshi Suzuki, Fumio Taki, Seiji Takahashi, and Takayuki Ozawa</i>	424
Isolation and Characterization of a Partial cDNA Clone for Heparin Cofactor II	<i>Roger C. Inhorn and Douglas M. Tollefsen</i>	431
Differences in the Spectral Interactions between NADPH-Cytochrome P-450 Reductase and a Series of Cytochrome P-450 Enzymes	<i>Paul P. Tamburini, Ingela Jansson, Leonard V. Favreau, Wayne L. Backes, and John B. Schenkman</i>	437
Intracellular Molecular Species of Human Chorionic Gonadotropin from Normal but Noncultured First Trimester Placental Tissues	<i>Ryuzo Sakakibara, Nobuaki Tominaga, and Masatsune Ishiguro</i>	443
2',3'- <i>seco</i> -Pyrimidine Nucleosides and Nucleotides, Including Structural Analogs of 3':5'-Cyclic CMP and UMP, and Their Behavior in Several Enzyme Systems	<i>P. Lassota, Z. Kazimierczuk, M. Zan-Kowalczevska, and D. Shugar</i>	453
Inhibitory Effect of Prostaglandin E ₂ on Cholesterol Ester Accumulation in Macrophages	<i>Nobuhiro Morisaki, Tetsuto Kanzaki, Masaki Kitahara, Yasushi Saito, and Sho Yoshida</i>	461
An Antibody-Binding Site in the Native Enzyme between Amino Acid Residues 205-287 of the γ -Subunit of F ₁ from <i>Escherichia coli</i>	<i>Karin Ehrig, Jürgen Hoppe, Peter Friedl, and Hans Ulrich Schairer</i>	468

<i>In Vitro</i> Synthesis of Pig Kidney General Acyl-CoA Dehydrogenase Taisuke Inagaki, Norihiro Tsukagoshi, Chikako Ichihara, Nobuko Ohishi, Shigezo Udaka, Sandro Ghisla, and Kunio Yagi	1049
Covalent Binding of a Mercaptan S-Sulfate to Hepatic Cytosolic Proteins and Its Inhibition by Glutathione Tadashi Watabe, Haruhiro Okuda, Akira Hiratsuka, and Kiyoshi Miwa	1055
α -L-Fucosidase from Bull Seminal Plasma: Its Purification and Acrosome Reaction Promoting Property P. N. Srivastava, K. Arbtan, G. H. Takei, T. T. F. Huang, and R. Yanagimachi	1061
^1H NMR Studies of Mastoparan Binding by Calmodulin David C. Muchmore, Dean A. Malencik, and Sonia R. Anderson	1069
Specific Binding of Atrial Natriuretic Polypeptide to Renal Basolateral Membranes in Spontaneously Hypertensive Rats (SHR) and Stroke-Prone SHR Hideyuki Saito, Ken-ichi Inui, Yasuhisa Matsukawa, Tomonobu Okano, Hitoshi Maegawa, Kazuwa Nakao, Narito Morii, Hiroo Imura, Susumu Makino, and Ryohei Hori	1079
A Reversible Effect of Low Carbon Monoxide Concentrations on the EPR Spectra of the Periplasmic Hydrogenase from <i>Desulfovibrio vulgaris</i> Daulat S. Patil, Melvin H. Czechowski, Boi H. Huynh, Jean LeGall, Harry D. Peck, Jr., and Daniel V. DerVartanian	1086
Tumor Necrosis Factor Provokes Superoxide Anion Generation from Neutrophils Masafumi Tsujimoto, Shuji Yokota, Jan Vilček, and Gerald Weissmann	1094
α -Difluoromethylornithine Does Not Bind to Ornithine Decarboxylase-Antizyme Complex Takako Kitani and Hitoshi Fujisawa	1101
Cofactor Activity of Dihydroflavin Mononucleotide and Tetrahydrobiopterin for Murine Epididymal Indoleamine 2,3-Dioxygenase Yoshisuke Ozaki, John F. Reinhard, Jr., and Charles A. Nichol	1106
Biphasic Effect of Phorbol Myristate Acetate on Histamine Secretion Induced by Compound 48/80 in Rat Peritoneal Mast Cells Yukio Okano, Kohji Yamada, Hajime Takagi, and Yoshinori Nozawa	1112
Purification of Cytoplasmic Precursors of Yeast Mitochondrial Phenylalanyl-tRNA Synthetase Subunits M. Diatewa, J. L. Taite, and A. J. C. Stahl	1119
Expression of Type X Collagen mRNA Levels in Embryonic Chick Sternum during Development Anthony M. Reginato, James W. Lash, and Sergio A. Jimenez	1125
Isolation and Characterization of a Human U3 Small Nucleolar RNA Gene Dick Suh, Harris Busch, and Ram Reddy	1133
Acetylcholine Operated Ion Channel and α -Bungarotoxin Binding Site in a Human Neuroblastoma Cell Line Reside on Different Molecules C. Gotti, E. Wanke, E. Sher, D. Fornasari, D. Cabrini, and F. Clementi	1141
Stoichiometry of Phosphate Loss from Sea Urchin Sperm Guanylate Cyclase during Fertilization Victor D. Vacquier and Gary W. Moy	1148
Alterations in Deoxynucleoside Triphosphate Metabolism in DNA Damaged Cells: Identification and Consequences of Poly(ADP-Ribose) Polymerase Dependent and Independent Processes Shishir K. Das and Nathan A. Berger	1153
Phorbol Esters Induce Both Intracellular Translocation and Down-Regulation of Protein Kinase C in MCF-7 Cells Jean-Marie Darbon, Marc Issandou, Félie Delassus, and Francis Bayard	1159
Occurrence of Two Cholecystokinin Binding Sites in Guinea Pig Brain Cortex Christiane Durieux, Maité Coppey, Jean-Marie Zajac, and Bernard P. Roques	1167
Cationic Glutathione S-Transferase of Human Erythrocytes Has Unique Kinetic Char- acteristics among Human Glutathione S-Transferases Shivendra V. Singh and Yogesh C. Awasthi	1174
Erythro-9-[3-(2-hydroxynonyl)]adenine Accelerates Actin Polymerization and Nucleotide Exchange Terence P. Walsh and Ross L. Tellam	1181

Table of Contents

Affinity Isolation of Transcriptionally Active DNA	
Barry Roseman, John Lough, Everin Houkom, and Tim Herman	474
Lanthanide Ion Enhancement of Interferon Binding to Cells	
J. James Sedmak, Hector S. MacDonald, and Vladimir M. Kushnaryov	480
Cholera Toxin, a Potent Inducer of Epidermal Hyperplasia but with No Tumor-Promoting Activity in Mouse Skin Carcinogenesis	
Toshio Kuroki, Kazuhiro Chida, Kimiye Munakata, and Yoshinori Murakami	486
Apolipoprotein B Is a Calcium-Binding Protein	
Nassrin Dashti, Diana M. Lee, and Tina Mok	493
Cross-Linking of Surface Immunoglobulin on B Lymphocytes Induces Both Intracellular Ca^{2+} Release and Ca^{2+} Influx: Analysis with Indo-1	
Martin K. Bijsterbosch, Kevin P. Rigley, and Gerry G. B. Klaus	500
Abnormal Expression of the Calmodulin Gene in Muscle from the Dystrophic Chicken	
Michael S. Hudecki, Philip K. Kibler, Catherine M. Pollina, Harshad R. Thacore, Paul J. Davis, and Faith B. Davis	507
Stereoselective Interaction of Enantiomers of Diniconazole, a Fungicide, with Purified P-450/14DM from Yeast	
Yuzo Yoshida, Yuri Aoyama, Hirotaka Takano, and Toshiro Kato	513
Specific Expression of Homoeobox-Containing Genes during Induced Differentiation of Embryonal Carcinoma Cells	
Panagiotis A. Tsonis and Eileen D. Adamson	520
Cell-Free Synthesis of δ -(L- α -Aminoadipyl)-L-cysteine, the First Intermediate of Penicillin and Cephalosporin Biosynthesis	
Gerald Banko, Saul Wolfe, and Arnold L. Demain	528
Uric Acid Protects Membranes and Linolenic Acid from Ozone-Induced Oxidation	
Jan Meadows, Robert C. Smith, and Jeri Reeves	536
Identification of the C-Terminus of Rabbit Skeletal Muscle Glycogen Synthase	
Philip Cohen, Charles F. B. Holmes, Linda Poulter, Brad Gibson, and Dudley H. Williams	542
Evidence That the Subunit Structure of Gonadotropin Receptor Is Preserved during Regression of Rat Corpus Luteum	
Jaulang Hwang and K. M. J. Menon	546
Characterization of the Insulin and Insulin-like Growth Factor Receptors and Responsivity of a Fibroblast/Adipocyte Cell Line before and after Differentiation	
Makoto Shimizu, Frank Torti, and Richard A. Roth	552
Phosphorylation of Bovine Cardiac Calcium-Activated Neutral Protease by Protein Kinase C	
Maxwell T. Hincke and Susan Tolnai	559
Partial Purification and Characterization of Phosphotyrosyl-Protein Phosphatase(s) from Human Erythrocyte Cytosol	
Giulio Clari, Anna Maria Brunati, and Vittorio Moret	566
Determination of Intracellular Potassium Ion Concentration in Isolated Rat Ventricular Myocytes	
C. H. Fry, J. P. T. Ward, V. W. Twist, and T. Powell	573
Preliminary Studies on the Potential of <i>in Vivo</i> Deuterium NMR Spectroscopy	
Ian M. Brereton, Michael G. Irving, James Field, and David M. Doddrell	579
ERRATUM	
Volume 136, Number 1, April 14, 1986: Raymond J. Bergeron, Raul Braylan, Stacia Goldey, and Michael Ingono, "Effects of the <i>Vibrio cholerae</i> Siderophore Vibriobactin on the Growth Characteristics of L1210 Cells," pp. 273-280.	585

Volume 137, Number 2, June 13, 1986

AUTHOR INDEX, Volume 137, Number 2, June 13, 1986	ii
1-Stearyl,2-stearoylamino deoxy Phosphatidylcholine, a Potent Reversible Inhibitor of Phospholipase A_2	
Florence F. Davidson, Joseph Hajdu, and Edward A. Dennis	587
Determination of the Molecular Size of the Hepatic H_1 -Receptor by Tagert Size Analysis	
Nai Ping Wang, Hiroyuki Fukui, Hiroto Matsuoka, and Hiroshi Wada	593
The Phosphorylation of Human Link Proteins	
Dean A. Oester, Bruce Caterson, and Edith R. Schwartz	599

Table of Contents

Photoaffinity Labeling of Human Platelet and Rabbit Kidney α_2 -Adrenoceptors with [3 H]SKF 102229	John W. Regan, John R. Raymond, Robert J. Lefkowitz, and Robert M. DeMarinis	606
Molecular Characterization of an Autolysin-Defective Mutant of <i>Streptococcus pneumoniae</i>	José L. García, José M. Sánchez-Puelles, Pedro García, Rubens López, Concepción Ronda, and Ernesto García	614
Isolation and Analysis of a cDNA Coding for Human C1 Inhibitor	Benito G. Que and Philip H. Petra	620
<i>In Vitro</i> Synthesis of Peroxisomal Membrane Polypeptides	Andrea Köster, Michael Heisig, Peter C. Heinrich, and Wilhelm W. Just	626
The Association of Acute Phase Protein Genes with the Nuclear Matrix of Rat Liver during Experimental Inflammation	Helen E. Birch and Gerhard Schreiber	633
The Nuclear Matrix Is the Site of Glucocorticoid Receptor Complex Action in the Nucleus	Ted M. Kirsch, Andrea Miller-Diener, and Gerald Litwack	640
Identification of cDNA Clones for Ligninase from <i>Phanerochaete chrysosporium</i> Using Synthetic Oligonucleotide Probes	Y. Z. Zhang, G. J. Zylstra, R. H. Olsen, and C. A. Reddy	649
Alpha-Human Atrial Natriuretic Polypeptide (α -hANP) Specific Binding Sites in Bovine Adrenal Gland	Kazumi Higuchi, Hajime Nawata, Ken-Ichi Kato, Hiroshi Ibayashi, and Hisayuki Matsuo	657
Antimuscarinic Effects of Chloroquine in Rat Pancreatic Acini	Yoshiaki Habara, John A. Williams, and Seth R. Hootman	664
Precipitation of Concanavalin A by a High Mannose Type Glycopeptide	Lokesh Bhattacharyya and C. Fred Brewer	670
The Presence of Na ⁺ Channels in Myometrial Smooth Muscle Cells Is Revealed by Specific Neurotoxins	T. Amédée, J. F. Renaud, K. Jmari, A. Lombet, J. Mironneau, and M. Lazdunski	675
The Transport of an Intact Oligopeptide across Adult Mammalian Jejunum	Kazuo Takaori, James Burton, and Mark Donowitz	682
Human Hepatocytes Metabolizing Ethanol Generate a Nonpolar Chemotactic Factor for Human Neutrophils	F. Joseph Roll, D. Montgomery Bissell, and H. Daniel Perez	688
Purification of the Type I Insulin-like Growth Factor Receptor from Human Placenta	Peter Maly and Christine Lüthi	695
A Similar Ribosomal Protein S6 Kinase Activity Is Found in Insulin-Treated 3T3-L1 Cells and Chick Embryo Fibroblasts Transformed by Rous Sarcoma Virus	Melanie H. Cobb, John G. Burr, Maurine E. Linder, Teri B. Gray, and Jill S. Gregory	702
Increased Potency of Antagonists of the Luteinizing Hormone Releasing Hormone Which Have D-3-Pal in Position 6	Karl Folkers, Cyril Bowers, Xiao Shao-bo, Pui-Fun Louisa Tang, and Minoru Kubota	709
The Conversion of Native Adenylylated Glutamine Synthetase into Phosphotyrosine Enzyme by Micrococcal Nuclease	Kinuko Kimura, Yurie Kaizu, Kouji Matsuoka, and Yoshio Nakano	716
Potent and Prolonged Melanotropic Activities of the α -MSH Fragment Analog, Ac-[Nle ⁴ , D-Phe ⁷]- α -MSH ₄₋₉ -NH ₂	David G. Klemes, Kristie L. Kreutzfeld, Mac E. Hadley, Wayne L. Cody, and Victor J. Hruby	722
A Bacterial-Induced Lectin Which Triggers Hemocyte Coagulation in <i>Manduca sexta</i>	M. F. Minnick, R. A. Rupp, and K. D. Spence	729
Characterization of Peptidoglycan Stem Lengths by Solid-State ¹³ C and ¹⁵ N NMR	Jacob Schaefer, Joel R. Garbow, Gary S. Jacob, Theresa M. Forrest, and G. Edwin Wilson, Jr.	736
Homologous Up-Regulation of the 1,25 (OH) ₂ Vitamin D ₃ Receptor in Rats	Elizabeth M. Costa and David Feldman	742
Biochemical and Immunological Characterization of the Cloned Crystal Toxin of <i>Bacillus thuringiensis</i> var. <i>israelensis</i>	Vaithilingam Sekar	748

Coupling of Growth Arrest and Expression of Early Markers during Adipose Conversion of Preadipocyte Cell Lines	<i>Ez-Zoubir Amri, Christian Dani, Alain Doglio, Paul Grimaldi, and Gérard Ailhaud</i>	903
Multiple Cytochrome Deficiency and Deteriorated Mitochondrial Polypeptide Composition in Fatal Infantile Mitochondrial Myopathy and Renal Dysfunction	<i>Masashi Tanaka, Morimitsu Nishikimi, Hiroshi Suzuki, Takayuki Ozawa, Eizo Okino, and Hiroaki Takahashi</i>	911

Volume 137, Number 3, June 30, 1986

AUTHOR INDEX, Volume 137, Number 3, June 30, 1986		ii
c-ras Expression Decreases during <i>In Vitro</i> Senescence in Human Fibroblasts	<i>Dora Delgado, Laurence Raymond, and Roger Dean</i>	917
Atriopeptin Release in Conditions of Altered Salt and Water Balance in the Rat	<i>David Schwartz, Nobuo C. Katsube, and Philip Needleman</i>	922
Tissue Expression of Three Structurally Different Fatty Acid Binding Proteins from Rat Heart Muscle, Liver, and Intestine	<i>Nathan M. Bass and Joan A. Manning</i>	929
Active Fragments and Analogs of the Insect Neuropeptide Leukopyrokinin: Structure-Function Studies	<i>Ronald J. Nachman, G. Mark Holman, and Benjamin J. Cook</i>	936
Solubilization of the D-1 Dopamine Receptor from Rat Striatum	<i>Anita Sidhu and Peter H. Fishman</i>	943
Direct Stimulatory Effects of Insulin-like Growth Factor-I on Leydig Cell Steroidogenesis in Primary Culture	<i>T. Lin, J. Haskell, N. Vinson, and L. Terracio</i>	950
HeLa Cells Synthesize a Specific Heat Shock Protein upon Exposure to Heat Shock at 42°C but Not at 45°C	<i>Takumi Hatayama, Ken-ichi Honda, and Munehiko Yukioka</i>	957
Catalytic Function of a Tyrosyl Residue in Tryptophanase	<i>Toshihide Kakizono, Takuya Nihira, and Hisaharu Taguchi</i>	964
Inhibition of the Catalytic Subunit of Ram Sperm Adenylate Cyclase by Adenosine	<i>D. Henry, F. Ferino, S. Tomova, N. Ferry, D. Stengel, and J. Hanoune</i>	970
Chemical Sensing by a Novel Electrical Oscillator: Detection and Quantitation of Polysaccharides in Concanavalin A Solutions	<i>Kenichi Yoshikawa and Teruyuki Omochi</i>	978
Peptide C-Terminal α -Amidating Enzyme Purified to Homogeneity from <i>Xenopus laevis</i> Skin	<i>Kensaku Mizuno, Junichiro Sakata, Masayasu Kojima, Kenji Kangawa, and Hisayuki Matsuo</i>	984
Covalent Attachment of ω -Hydroxyacid Derivatives to Epidermal Macromolecules: A Preliminary Characterization	<i>Philip W. Wertz and Donald T. Downing</i>	992
Establishment and Characterization of B-Cell Lines from Individuals with Various Types of Adenine Phosphoribosyltransferase Deficiencies	<i>Tsutomu Nobori, Naoyuki Kamatani, Kiyonobu Mikanagi, Yutaro Nishida, and Kusuki Nishioka</i>	998
Gravity-Flow Alkaline Elution: A Method to Rapidly Detect Carcinogen-Induced DNA Strand Breaks	<i>Jeffrey R. Hincks and Roger A. Coulombe, Jr.</i>	1006
B16 Tumor Cells Contain a Warfarin Sensitive Vitamin K1 2,3-Epoxy Reductase	<i>Martin P. Uitendaal, Henk H. W. Thijssen, Marie-Jose H. J. Drittij-Reijnders, and Marian J. F. Hoeijmakers</i>	1015
K Dependence of the Na-K Pump Is Abnormal in Erythrocytes from Patients with Cystic Fibrosis and Obligate Heterozygotes	<i>Vivian M. Reznik, Ivan R. Harwood, and Stanley A. Mendoza</i>	1021
Destabilization of Cytoplasmic Mouse Mammary Tumor RNA by Heat Shock: Prevention by Cycloheximide Pretreatment	<i>Ranju Ralhan and George S. Johnson</i>	1028
Localization of Insulin Degradation Products to an Intracellular Site in Isolated Rat Hepatocytes	<i>Mary E. Pell, William C. Duckworth, and Daniel E. Peavy</i>	1034
Activation of Lipoprotein Lipase by N- α -Palmitoyl (56-79) Fragment of Apolipoprotein C-II	<i>Ambikaipakan Balasubramaniam, Ann Rechten, Larry R. McLean, Richard L. Jackson, and Rudy A. Demel</i>	1041

Table of Contents

Altered Distribution of Protein Kinase C in Dystrophic Muscle Cells and Its Modulation by Liposome-Delivered Phospholipids	<i>Giulio Cossu, Sergio Adamo, M. Immacolata Senni, Cinzia Caporale, and Mario Molinaro</i>	752
Inhibition by Rhodamine 123 of Protein Synthesis in Mitochondria of Normal and Cancer Tissues	<i>Wafa H. Abou-Khalil, Grace K. Arimura, Adel A. Yunis, and Samir Abou-Khalil</i>	759
A Novel Type of Phorbol Ester-Dependent Protein Phosphorylation in the Particulate Fraction of Mouse Epidermis	<i>Michael Gschwendt, Walter Kittstein, and Friedrich Marks</i>	766
Microsomal Epoxide Hydrolase Activity in Human X Mouse Hybrid Cells	<i>S. Brown and D. E. Chalmers</i>	775
Lapachol Inhibition of DT-Diaphorase (NAD(P)H:Quinone Dehydrogenase)	<i>Peter C. Preusch</i>	781
Construction of a Genomic Library from Germinating Seedlings of Mung Bean (<i>Vigna radiata</i>). Evidence for the Presence of a Class of Repetitive Sequences and Selection of β -Tubulin Specific Recombinant Phage	<i>Sribir Sen and Pranab Roy</i>	788
Modulation of the Relaxing Activity of <i>Escherichia coli</i> Topoisomerase I by Single-Stranded DNA Binding Proteins	<i>Kalkunte S. Srivenugopal and David R. Morris</i>	795
GTP and Cytosol Stimulate Phosphoinositide Hydrolysis in Isolated Platelet Membranes	<i>Joseph J. Baldassare and Gary J. Fisher</i>	801
Synthesis and Secretion of Phosphorylated Growth Hormone by Rat Pituitary Glands <i>in Vitro</i>	<i>J. P. Liberti and G. S. Joshi</i>	806
Opioid Receptors in Human Neuroblastoma SH-SY5Y Cells: Evidence for Distinct Morphine (μ) and Enkephalin (δ) Binding Sites	<i>Syed M. I. Kazmi and Ram K. Mishra</i>	813
Scission of Human Apolipoprotein B-100 by Kallikrein: Characterization of the Cleavage Site	<i>David A. Hardman, Anders Gustafson, James W. Schilling, Virginia H. Donaldson, and John P. Kane</i>	821
Rapid Increases in Inositol Trisphosphate and Intracellular Ca^{2+} after Heat Shock	<i>Mary Ann Stevenson, Stuart K. Calderwood, and George M. Hahn</i>	826
Length and Sequence Polymorphisms in the Ribosomal Gene Spacer of the Hawaiian Sea Urchin, <i>T. gratilla</i>	<i>Frank A. Simmen, Morton Mandel, and Tom Humphreys</i>	834
Formation of 8-Hydroxydeoxyguanosine, Hydroxyl Free Radical Adduct of DNA in Granulocytes Exposed to the Tumor Promoter, Tetradecanylphorbolacetate	<i>R. A. Floyd, J. J. Watson, J. Harris, M. West, and P. K. Wong</i>	841
Production and Characterization of Monoclonal Antibodies against Recombinant Human Tumor Necrosis Factor/Cachectin	<i>Chi-Ming Liang, Shu-Mei Liang, Therese Jost, Astrid Sand, Irene Douglas, and Bernard Allet</i>	847
Biochemical Evidence for Cellular Dedifferentiation in Adult Rat Cardiac Muscle Cells in Culture: Expression of Myosin Isozymes	<i>Asish C. Nag and Mei Cheng</i>	855
Type-II Thyroxine 5'-Deiodinase Is Present in the Rat Pineal Gland	<i>K. Tanaka, M. Murakami, and M. A. Greer</i>	863
Multiply Branched DNA Molecules from Bacteriophage λ : Putative Postreplicational Repair DNA Intermediates	<i>Manuel S. Valenzuela and Ross B. Inman</i>	869
Elevated Atrial Natriuretic Polypeptide in Plasma of Hypertensive Dahl Salt-Sensitive Rats	<i>Rudolf M. Snajdar and John P. Rapp</i>	876
Characterization of Monoclonal Antibodies Directed against Pyruvate Oxidase from <i>Escherichia coli</i> : Modulation of Antibody-Induced Inhibition by Enzyme Conformation	<i>Carlos A. Barassi, Robert G. Kranz, and Robert B. Gennis</i>	884
Mannose Receptor Dependent Uptake of a Ricin A Chain Antibody Conjugate by Rat Liver Nonparenchymal Cells	<i>Nan R. Worrell, David N. Skilleter, Alan J. Cumber, and Roger J. Price</i>	892
A Putative Met-Enkephalin Releaser, Kyotorphin Enhances Intracellular Ca^{2+} in the Synaptosomes	<i>Hiroshi Ueda, Yoshihiro Yoshihara, and Hiroshi Takagi</i>	897