

1972 PROGRAM

AMERICAN SOCIETY FOR
CLINICAL INVESTIGATION, INC.

64TH ANNUAL MEETING

Including programs for
American Federation for Clinical Research, Inc.
The Association of American Physicians

MONDAY, MAY 1

PENNSYLVANIA ROOM, HADDON HALL

ATLANTIC CITY

American Society for Clinical Investigation, Inc.

64TH ANNUAL MEETING

MONDAY, MAY 1

MORNING

9:00 a.m., Pennsylvania Room, Haddon Hall

FIRST BUSINESS SESSION

THE PRESIDENT'S ADDRESS

SCIENTIFIC SESSION ‡

Chairman: Dr. Paul A. Marks

(*The presentation of each paper will be limited to 10 min.*)

1. Antibody Response to Gonococcal Pili in Patients with Gonorrhea. T. M. BUCHANAN,* J. SWANSON,* and E. C. GOTTSCHLICH, New York. (53)
2. Pyrogen Production In Vitro by Lymphoid Tissue in Malignant Lymphoma. PHYLLIS BODEL, New Haven, Conn. (35)
3. Metabolism of Thyroid Hormones by Phagocytizing Human Leukocytes. S. J. KLEBANOFF and W. L. GREEN,* Seattle, Wash. (167)
4. Survival of *Toxoplasma gondii* within Phagocytic Vacuoles: Evidence for Absence of Lysosomal Fusion. THOMAS C. JONES* and JAMES G. HIRSCH,** New York. (155)
5. Decrease in the Hemolytic Anemia of Sickle Cell Disease after Administration of Sodium Cyanate. PETER N. GILLETTE,* CHARLES M. PETERSON,* JAMES M. MANNING,* and ANTHONY CERAMI,* New York (introduced by Attallah Kappas). (177)
6. Mechanism of Action of Arabinosyl Cytosine (ara-C): Assignment of Replicative Function to a Human DNA Polymerase. R. M. FOX,* G. V. RAMA REDDY,* and M. GOULIAN, La Jolla, Calif. (105)

*Denotes nonmember, ASCI, AFCR, or AAP.

**Denotes emeritus members ASCI or senior member AFCR.

Names with no following symbol are active members of the society to which the abstract was submitted.

() Abstract number.

‡The President gratefully acknowledges the valuable assistance of the Subsection Chairmen in the selection of this program.

7. Reactivity of Antisera Detecting Acute Leukemia Associated Antigen(s). DEAN MANN,* ROGER HALTERMAN,* and BRIGID LEVENTHAL,* Bethesda, Md. (introduced by William Terry). (200)
8. The Isolation of Human Vitamin B₁₂-Binding Proteins Utilizing Affinity Chromatography. ROBERT H. ALLEN* and PHILIP W. MAJERUS, St. Louis, Mo. (8)
9. Mechanism of Steroid Hormone Action: Proof of the Messenger RNA Hypothesis. JOHN COMSTOCK,* GARY ROSENFIELD,* ANTHONY MEANS,* and BERT O'MALLEY, Nashville, Tenn. (65)
10. Molecular Basis of Glucocorticoid Response: Specific DNA Binding of a Steroid-Receptor Complex. JOHN D. BAXTER,* GUY G. ROUSSEAU,* STEPHEN J. HIGGINS,* and GORDON M. TOMKINS,** San Francisco, Calif. (28)
11. The Transmissibility of Canine Systemic Lupus Erythematosus (SLE). ROBERT M. LEWIS,* JANINE ANDRE-SCHWARTZ,* MARTIN C. HIRSCH,* PAUL BLACK, and ROBERT S. SCHWARTZ, Boston, Mass. (188)
12. A Nonimmunoglobulin Protein—the Major Component of Some Human Amyloid Fibrils. MARK LEVIN,* EDWARD C. FRANKLIN, BLAS FRANGIONE, and MORDECHAI PRAS,* New York. (183)

AFTEROON

2:00 p.m., Pennsylvania Room, Haddon Hall

SECOND BUSINESS SESSION

SCIENTIFIC SESSION

Chairman: Dr. Irwin M. Arias

13. Histidine-Dependent Zinc Loss, Hypogeusia, Anorexia, and Hyposmia. R. I. HENKIN, H. R. KEISER,* and D. BRONZERT,* Bethesda, Md. (142)
14. Neural Regulation of Pancreatic Glucagon Secretion. D. PORTE, JR., E. B. MARLISS,* L. GIRARDIER,* J. SEYDOUX,* Y. KANAZAWA,* A. RENOUD,** and J. POSTERNAK,* Geneva, Switzerland and Seattle, Wash. (249)
15. Gluconeogenesis in Human Diabetes: Evidence of a Primary Abnormality in Hepatic rather than Peripheral Processes. PHILIP FELIG,* JOHN WAHREN,* EROL CERASI,* and ROLF LUFT,* New Haven, Conn. and Stockholm, Sweden (introduced by L. R. Freedman). (94)

16. Randomized Trials of Physician Substitutes in Primary Care. WALTER O. SPITZER,* ROBIN S. ROBERTS,* MICHAEL GENT,* DAVID L. SACKETT,* JOHN C. SIBLEY,* DOROTHY J. KERGIN,* and MAY A. YOSHIDA,* Hamilton, Canada (introduced by Alvan R. Feinstein**). (304)
17. Fetal Gene Expression in Human Tumor Cells. OLIVER W. JONES,* ANDREW TAYLOR,* and MARY A. STAFFORD,* La Jolla, Calif. (introduced by William L. Nyhan). (154)
18. Decreased Lysyl-Protocollagen Hydroxylase Activity in Fibroblasts from a Family with a Newly Recognized Disorder: Hydroxylysine-Deficient Collagen. STEPHEN M. KRANE, SHELDON R. PINNELL,* and RICHARD W. ERBE,* Boston, Mass. (170)
19. In Vitro Synthesis of DNA Components of Human Genes for Globin: Use as a Probe for Messenger RNA (mRNA). L. W. Dow,* D. KACIAN,* M. TERADA,* S. METAFORA,* S. SPIEGELMAN,* P. A. MARKS, and A. BANK, New York. (79)
20. Left Ventricular (LV) Response to Severe Exercise in Untethered Dogs. S. F. VATNER,* D. FRANKLIN,* C. B. HIGGINS,* R. W. MILLARD,* T. PATRICK,* and E. BRAUNWALD, La Jolla, Calif. (326)
21. Myocardial Damage after Aorto-Coronary Vein Bypass Surgery. STEPHEN ACHUFF,* LAWRENCE GRIFFITH,* J. O'NEAL HUMPHRIES,* C. RICHARD CONTI,* ROBERT BRAWLEY,* VINCENT GOTTE,* and RICHARD ROSS, Baltimore, Md. (3)
22. Mechanism of Action of Type II Antiarrhythmic Drugs. LURA A. HARRISON,* JOHN WITTIG,* and ANDREW WALLACE, Durham, N. C. (139)
23. Inhibition of Renin Secretion by Propranolol: a Specific Treatment for Renal Hypertension? FRITZ R. BÜHLER,* LESLIE BAER,* EDWIN D. VAUGHAN,* HANS R. BRUNNER,* and JOHN H. LARAGH, New York. (55)
24. Prostaglandins: Release from the Lung during Mechanical Ventilation at Large Tidal Volumes. SAMI I. SAID, SATOSHI KITAMURA,* and CAROL VREIM,* Richmond, Va. and Dallas, Tex. (275)

Joint Program with the American Federation for Clinical Research, Inc.

SUNDAY AFTERNOON, APRIL 30

CARDIOVASCULAR PHYSIOLOGY

2:00 p.m., Pennsylvania Room II, Haddon Hall

Co-Chairmen: Dr. Herbert L. Levine
Dr. Dean T. Mason

1. The Cardiac Beta-Adrenergic Receptor: Solubilization, Characterization, and Purification by Affinity Chromatography. ROBERT LEFKOWITZ,* EDGAR HABER, GEOFFREY SHARP,* and DONALD O'HARA,* Boston, Mass. ASCI (178)
2. Coronary Artery vs. Microcirculatory Thrombosis: Effects of Aspirin and Dipyridamole. K. LAHIRI,* C. B. MOSCHOS,** M. LYONS,** H. OLDEWURTEL,** and T. J. REGAN,** Newark, N. J. AFCR
3. The Deleterious Electrophysiologic Effects Produced by Increasing Heart Rate during Experimental Coronary Occlusion. K. M. KENT,* E. R. SMITH,* D. R. REDWOOD,* and S. E. EPSTEIN, Bethesda, Md. (introduced by R. E. Goldstein). AFCR
4. Clinical, Angiographic, and Therapeutic Aspects of the Intermediate Coronary Syndrome (Pre-Infarction Angina). S. J. FISCHL,* M. V. HERMAN, and R. GORLIN,** Boston, Mass. AFCR

5. Differentiation between Aberrant Ventricular Conduction and Ventricular Ectopy by His Bundle Electrography. Z. VERA,* T. O. CHENG,** G. ERTEM,* M. SHOALEVVAR,* R. WICKRAMASEKARAN,* and K. WADHWA,* Washington, D. C. AFCR
6. Reflex Peripheral Vascular Responses to Left Ventricular Distension. H. G. HANLEY, Houston, Tex. AFCR
7. Role of the Frank-Starling Mechanism in Strenuous Exercise. LAWRENCE D. HORWITZ,* JAMES M. ATKINS,* STEPHEN J. LESHIN,* and STANLEY A. DUNBAR,* Dallas, Tex. (introduced by Jere H. Mitchell). ASCI (147)
8. Diastolic Filling in Cardiac Disease. BARRY SILVERMAN* and NICHOLAS FORTUIN,* Baltimore, Md. AFCR
9. The Effect of Physical Conditioning on the Cardiac Response to Hypoxia. JAMES SCHEUER and S. WILLIAM STEZOSKI,* Pittsburgh, Pa. AFCR
10. Determination of Left Ventricular Preload and Afterload using Quantitative Echocardiography. R. A. RATSHIN,* C. E. RACKLEY, and R. O. RUSSELL, JR., Birmingham, Ala. AFCR
11. Normal Myocardial Function and Energetics in Hypertrophy Secondary to Flow Overload. G. COOPER,* C. E. HARRISON, F. PUGA,* K. ZUJKO,* and H. N. COLEMAN, Rochester, Minn. AFCR
12. Bradykininase Deficiency: a Cause of Orthostatic Syncope. L. P. KERR,* C. B. KERR,* T. G. DALAKOS, and D. H. P. STREETEN,** Syracuse, N. Y. AFCR

DERMATOLOGY

2:00 p.m., Seaside Motel

Co-Chairmen: Dr. Irwin M. Freedberg
Dr. Ruth K. Freinkel

1. A Collagenolytic System Produced by Rheumatoid Subcutaneous Nodules. EDWARD D. HARRIS, JR., Hanover, N. H. AFCR
2. Prolonged DNA Repair in Xeroderma Pigmentosum Lymphocytes. J. H. ROBBINS and K. H. KRAEMER,* Bethesda, Md. AFCR
3. The In Vivo Effect of UV Irradiation on Epidermal Chromatin. E. ZIMMERMAN,* M. A. PATHAK,** and A. KORNHAUSER,* Boston, Mass. AFCR
4. ϵ -(γ -Glutamyl) Lysine Cross-Links in Epidermis. H. P. BADEN** and L. A. GOLDSMITH, Boston, Mass. AFCR
5. Evidence for the Activation of Complement via the C3 Shunt in Skin Diseases. T. T. PROVOST,* F. PASS,* and T. B. TOMASI, JR., Buffalo, N. Y. and New York. AFCR
6. Antibodies to Viral and Synthetic Double-Stranded RNA in Discoid Lupus Erythematosus (DLE). R. SYLVESTER,* M. ATTAIS,* N. TALAL, and D. TUFFANELLI, San Francisco, Calif. AFCR
7. Mammalian Keratinocytes and Cytochalasin B. JOSEPH McGuire, STEPHANIE ARNESEN,* and GISELA MOELLERMANN,* New Haven, Conn. ASCI (210)
8. Effects of Alpha and Beta Adrenergic Stimulation on Cyclic AMP Formation and Mitosis in Epidermis. JOHN J. VOORHEES,** ELIZABETH A. DUELL,* WILLIAM H. KELSEY,* and EMMET HAYES,* Ann Arbor, Mich. AFCR
9. Altered Cyclic AMP Metabolism in Atopic Eczema. CHARLES W. PARKER and ARTHUR Z. EISEN, St. Louis, Mo. AFCR
10. In Vitro Synthesis of Porphyrins by Skin. L. HARBER, D. BICKERS,* A. RIFKIND,* and A. KAPPAS, New York. ASCI (136)
11. Electron Microscopic Studies of Biopsied Wounds in Primary Skin Amyloidosis. KEN HASHIMOTO and MARTIN H. BROWNSTEIN,* Memphis, Tenn. and New York. AFCR
12. Epidermal Intercellular Staining with Concanavalin A. MICHAEL L. NIELAND and NANCY W. NIELAND,* Memphis, Tenn. AFCR

ENDOCRINOLOGY

2:00 p.m., Pennsylvania Room III, Haddon Hall

Co-Chairmen: Dr. Stephen M. Krane
Dr. William Odell

1. Threshold for Feedback Suppression of Adrenocorticotropin Hormone (ACTH) Secretion in Cushing's Disease. ADA R. WOLFSEN* and WILLIAM D. ODELL, Torrance, Calif. ASCI (345)

2. Thyroxine Binding Globulin (TBG) Specificity for the Hormonally Active Conformation of Triiodothyronine (T_3). GEORGE C. SCHUSSLER, Buffalo, N. Y. AFCR
3. Inhibition of Thyrotropin (TSH) Response to Thyrotropin-Releasing Hormone (TRH) by Small Quantities of Thyroid Hormones. PETER J. SNYDER* and ROBERT D. UTIGER, Philadelphia, Pa. ASCI (302)
4. Stimulation of Human Prolactin Secretion by Intravenous Infusion of L-Tryptophan. ROGER W. TURKINGTON and JOHN H. MACINDOE,* Madison, Wis. ASCI (323)
5. Development and Application of Sequence Specific Radioimmunoassays (RIAs) for Parathyroid Hormone (PTH) in Man. G. V. SEGRE,* J. F. HABENER, D. POWELL,* H. KEUTMANN,* G. TREGEAR,* and J. T. POTTS, JR., Boston, Mass. AFCR
6. Purification of Peptide Hormone Receptors from the Kidney. STEPHEN J. MARX* and G. D. AURBACH, Bethesda, Md. ASCI (205)
7. Ectopic Production of Human Chorionic Gonadotropin (HCG) and Its Free Beta Subunit (HCG- β). BRUCE D. WEINTRAUB, YALE M. KADESCKY,* and SAUL W. ROSEN,** Boston, Mass. and Bethesda, Md. AFCR
8. Identification of Puberty by Synchronization of Luteinizing Hormone Release with Sleep. ROBERT M. BOYAR,* JORDAN FINKELSTEIN,* HOWARD ROFFWARG,* and LEON HELLMAN,** New York. ASCI (41)
9. Hormonal Regulation of Spermidine Synthesis during Spermatogenesis. JOHN H. MACINDOE* and ROGER W. TURKINGTON, Madison, Wis. AFCR
10. Paternal Transmission of XX Maleness in Humans. R. KASDAN,* P. TROEN,** N. WALD,* S. PAN,* and H. NANKIN, Pittsburgh, Pa. AFCR
11. Vasopressin (VP) Kinetics in Man and the Rhesus Monkey Fetus Using Radioimmunoassay (RIA) Measurements. W. RONALD SKOWSKY* and DELBERT A. FISHER, Torrance, Calif. (introduced by Joseph St. Geme, Jr.). ASCI (300)
12. Intracellular Potassium: the Regulator of Aldosterone Production. JOHN E. BOYD* and PATRICK J. MULROW, New Haven, Conn. ASCI (42)

GASTROENTEROLOGY

2:00 p.m., Vernon Room, Haddon Hall

Co-Chairmen: Dr. Steven Schenker
Dr. Donald M. Small

1. Defective Bile Salt Synthesis as Cause of Cholesterol Gallstones. SCOTT M. GRUNDY, ALLAN L. METZGER, and RONALD ADLER, Phoenix, Ariz. ASCI (127)
2. Bile Acids Inhibit Cholecystokinin (CCK) Release in Man. JUAN R. MALAGELADA,* VAY L. W. GO,* EUGENE P. DIMAGNO,* and WILLIAM H. J. SUMMERSKILL,* Rochester, Minn. (introduced by E. E. Wollaeger**). ASCI (196)

3. The Effects of Secretin (SEC) and Cholycystokinin (CCK) on Secretion of Bile Salts (BS) and Biliary Lipids. B. N. GARDINER* and D. M. SMALL, Boston, Mass. AFCR
4. Mechanism of Cholesterol Gallstone Formation in the Essential Fatty Acid-Deficient Hamster. SANDER J. ROBINS* and JOAN FASULO,* Boston, Mass. (introduced by Lauran D. Harris). ASCI (262)
5. Metabolism of 7 α -Hydroxy-4-Cholesten-3-One in Human Bile Acid Synthesis. R. F. HANSON and G. WILLIAMS,* Minneapolis, Minn. AFCR
6. Vitamin D and the Intestinal Transport of Zinc. DAVID SCHACHTER and SZLOMA KOWARSKI,* New York. ASCI (283)
7. A Binding Protein for Fatty Acids in Cytosol of Intestinal Mucosa, Liver, and Other Tissues. ROBERT K. OCKNER,* San Francisco, Calif. (introduced by R. Schmid). ASCI (231)
8. Fatty Acid Diarrhea. H. V. AMMON* and S. F. PHILIPS, Rochester, Minn. AFCR
9. Jejunal Conversion of Pteroylmonoglutamate (PGA) to 5-Methyltetrahydrofolate. E. J. OLINGER,* J. R. BERTINO,** and H. J. BINDER, New Haven, Conn. AFCR
10. Studies on the Absorptive Defect in Familial Selective Malabsorption of Vitamin B₁₂. I. L. MACKENZIE,* R. M. DONALDSON, J. S. TRIER, and V. I. MATHAN,* York, Pa. and Boston, Mass. AFCR
11. Changing Oxyhemoglobin Dissociation Curves in Hepatic Encephalopathy. D. S. ZIMMON, New York. AFCR
12. Pyloric Sphincter Dysfunction in Patients with Gastric Ulcer. R. FISHER* and S. COHEN, Philadelphia, Pa. AFCR
5. Communication between Normal and Enzyme-Deficient Cells in Tissue Culture. RODY P. COX, MARJORIE R. KRAUSS,* M. E. BALIS,* and JOSEPH DANCIS,* New York. ASCI (70)
6. Synthesis of a Human Protein Hormone in Hybrid Somatic Cells. PETER O. KOHLER, HENRY J. RUDER,* and HAYDEN G. COON,* Bethesda, Md. AFCR
7. Balanced Globin Synthesis in Bone Marrow in Sickle-Beta Thalassemia. FRANCES M. GILL* and ELIAS SCHWARTZ, Philadelphia, Pa. AFCR
8. Hemoglobin Constant Spring: Possibly Unstable mRNA, and Evidence for the Two Locus Theory for α Chain Production. YUET W. KAN,* DAVID TODD,* and ANDREE M. DOZY,* Boston, Mass. and Hong Kong, China. (introduced by David G. Nathan). AFCR
9. Genetic Analysis of Hemoglobin Proportions in Sickle Cell Trait. WALTER E. NANCE* and JOHN GROVE,* Indianapolis, Ind. (introduced by Walter J. Daly). ASCI (226)
10. Protective Effect of G6PD Deficiency in Sickle Cell Anemia. SERGIO PIOMELLI, CARL A. REINDORF,* and LAURENCE M. CORASH,* New York. AFCR
11. Two Types of β -Thalassemia Distinguished by Induction of Cell-Free Synthesis of β -Chains by Non-thalassemic Reticulocyte Soluble Fraction. PETER T. ROWLEY,* FRANCESCO CONCONI,* LAURA DEL SENNO,* SANDRO PONTREMOLI,* SILVIO VOLPATO,* and BARBARA KOSCIOLEK,* Rochester, N. Y. and Ferrara, Italy (introduced by Lawrence E. Young**). ASCI (270)
12. Hemoglobin Olympia (β 20 Val \rightarrow Met): an Electrophoretically Silent Variant Associated with High Oxygen Affinity and Erythrocytosis. PETER E. NUTE,* GEORGE STAMATOYANNOPOULOS, and DONALD FUNK,* Seattle, Wash. ASCI (230)

GENETICS

2:00 p.m., Garden Room, Haddon Hall

Co-Chairmen: Dr. William L. Nyhan
Dr. Richard Rifkind

1. Hereditary Hypodysfibrinogenemia Characterized by Fibrinogen Hypercatabolism. JOSE MARTINEZ,* RUTH R. HOLBURN,* SANDOR S. SHAPIRO, and ALLAN J. ERSLEY,** Philadelphia, Pa. ASCI (204)
2. α -Galactosidase Defect in Fabry's Disease. Specific Inhibition of One Enzyme by Myoinositol. JOHN C. CRAWFORD and MARIANNA BANFALVI,* Montreal, Canada. ASCI (73)
3. A Possible Mechanism of Connective Tissue Defect in Homocystinuria. ANDREW H. KANG,* Boston, Mass. (introduced by Donald B. Martin). ASCI (159)
4. Evidence for X-Linked Inheritance of Ornithine Transcarbamylase Deficiency. ELIZABETH M. SHORT,* HAROLD O. CONN,* PHILIP J. SNODGRASS,* and LEON E. ROSENBERG, New Haven, Conn. and Boston, Mass. ASCI (296)

HEALTH CARE AND CLINICAL EPIDEMIOLOGY

2:00 p.m., Solarium, Haddon Hall

Co-Chairmen: Dr. Alvan R. Feinstein
Dr. Howard H. Hiatt

1. Evaluation of Factors Responsible for Delay in Obtaining Abortion. GEORGE MALLORY,* LAURENCE RUBENSTEIN,* DANIEL DROSNESS,* GEORGE KLEINER,* and VICTOR SIDEL, Bronx, N. Y. AFCR
2. Video Ultrasound Imaging—a New Technique in Scanning. M. J. McKEOWN,* Chicago, Ill. (introduced by M. D. Lindheimer). AFCR
3. Value of Routine Screening Procedures in Adult Medical Patients in a Neighborhood Health Center. MAX MICHAEL,* J. TAYLOR,* and E. H. KASS,** Boston, Mass. AFCR
4. How Accurate Are Patients' Statements and Their Doctors' Estimates in Assessing Antacid Intake? HAROLD P. ROTH* and HERBERT S. CARON,* Cleveland, Ohio (introduced by Reginald A. Shipley**). ASCI (268)

5. Use of Multiple Causes of Death to Substantiate Rising Mortality from Cirrhosis in Massachusetts. C. TREY, F. E. SPEIZER,* P. D. PARKER,* L. LIPWORTH,* M. STEEN,* and C. S. DAVIDSON,** Boston, Mass. AFCR
6. The Relation of the Hospital Environment to Staphylococcal Disease. J. P. PHAIR, JUDITH CARLETON,* JAMES TAN, and C. WATANAKUNAKORN, Cincinnati, Ohio. AFCR
7. Non-Bacterial Infections at Autopsy in Cancer Patients. W. GREENE,* S. SCHIMPFF, V. M. YOUNG,* and S. GLUSMAN,* Baltimore, Md. AFCR
8. The Influence of Phenformin Therapy on Mortality from Cardiovascular Disease. MANUEL TZAGOURNIS and RICHARD REYNERTSON,* Columbus, Ohio. AFCR
9. Further Studies on Storage Pool Disease and Aspirin-Like Defects of Platelets. HARVEY J. WEISS and RICHARD P. AMES,* New York. ASCI (337)
10. Immunoabsorption of Human Factor IX. ETHAN A. NATELSON* and CHARLES A. COLTMAN, JR., Lackland Air Force Base, Tex. AFCR
11. Humoral Stimulators of Granulocyte Production. GERALD ROTSTEIN,* ERICH HÜGL,* PAUL CHERVENICK, and JOHN ATHENS,** Salt Lake City, Utah and Pittsburgh, Pa. ASCI (269)
12. Tissue Factor (T.F.) Production in Lymphocyte Cultures. F. R. RICKLES,* J. A. HARDIN,* F. A. PITLICK,* L. W. HOYER, and M. E. CONRAD,** Washington, D. C., Bethesda, Md., New Haven, Conn., and Newington, Conn. AFCR

HEMATOLOGY

2:00 p.m., Windsor Room, Haddon Hall

Co-Chairmen: Dr. Anthony P. Fletcher
Dr. Ernst R. Jaffe

1. The Kinetics of Hepatic Ferritin. CHIAM HERSHKO,* JAMES D. COOK,* and CLEMENT A. FINCH, Seattle, Wash. ASCI (145)
2. Mechanism of Uremic Hemolytic Anemia: Acquired Hexosemonophosphate Shunt Deficiency. YOSHIHITO YAWATA,* ROBERT HOWE,* and HARRY JACOB, Minneapolis, Minn. ASCI (348)
3. Nucleotide Sequence Analysis of Human Hemoglobin Messenger RNA. BERNARD G. FORGET* and CHARLES A. MAROTTA,* Boston, Mass. and New Haven, Conn. (introduced by Sherman M. Weissman). ASCI (104)
4. De Novo Lipid Synthesis as a Repair Mechanism for Membrane Damage in Mammalian Erythroid Cells. SAMIR K. BALLAS* and EDWARD R. BURKA, Philadelphia, Pa. ASCI (25)
5. Mechanisms of Immune Hemolysis in Hereditary Erythroblastic Multinuclearity with Positive Acidified Serum Test (HEMPAS) and Paroxysmal Nocturnal Hemoglobinuria (PNH). WENDELL ROSSE, JOHN CROOKSTON,* MARIE CROOKSTON,* GERALD LOGUE,* and JUDITH ADAMS,* Durham, N. C. and Toronto, Canada. ASCI (267)
6. Presence of a Myelostimulatory Factor in Polycythemia Vera (PV) and Agnogenic Myeloid Metaplasia (AMM). HARRY P. WARD* and WILLIAM A. ROBINSON,* Denver, Colo. (introduced by Matthew H. Block). ASCI (330)
7. Stimulation of Non-Immunized Lymphocytes by Platelet-Antibody Complexes in ITP. R. I. HANDIN,* W. F. PISSSENS,* and W. C. MOLONEY,** Boston, Mass. AFCR
8. Heavy Incorporation of Mevalonic Acid-2-¹⁴C into Cholesterol Precursors by Human Platelets In Vitro. PHIN COHEN and ARIE DERKSEN,* Boston, Mass. ASCI (63)

IMMUNOLOGY AND RHEUMATOLOGY

2 p.m., Rutland Room, Haddon Hall

Co-Chairmen: Dr. Matthew Scharff
Dr. Thomas B. Tomasi, Jr.

1. Mechanism of Cyclic AMP-Mediated Inhibition of Lysosomal Enzyme Release in Tissue Injury. GERALD WEISSMANN, ROBERT B. ZURIER,* PI-KWANG TSUNG,* and SYLVIA HOFFSTEIN,* New York. ASCI (338)
2. Abnormality of the Alternate Complement Pathway in Systemic Lupus Erythematosus (SLE) and Hypocomplementemic Chronic Glomerulonephritis (HCGN). SHAUN RUDDY,* LAWRENCE G. HUNSICKER,* PETER H. SCHUR, and K. FRANK AUSTEN, Boston, Mass. ASCI (272)
3. An Enzyme in the Alternate Pathway to C3 Activation (the Properdin System) and Its Inhibition by a Protein in Normal Serum. FRED S. ROSEN and CHESTER A. ALPER, Boston, Mass. ASCI (264)
4. Persistence of Hapten-Antibody Complexes in the Circulation of Immunized Animals after a Single Intravenous Injection of Hapten. DONALD H. SCHMIDT,* BETTE M. KAUFMAN,* and VINCENT P. BUTLER, JR., New York. ASCI (285)
5. Transfer of Rubella Virus Resistance from Rheumatoid to Rabbit Synovial Cells by Cell Fusion. CAROL SMITH* and DAVID HAMERMAN,** Bronx, N. Y. ASCI (301)
6. Effect of Immunoregulatory Alpha-Globulin on Antigen and Mitogen Binding by Lymphocytes. A. H. GLASGOW,* S. R. COOPERBAND, K. SCHMID,* and J. A. MANNICK, Boston, Mass. ASCI (118)
7. Attachment of Immune Complexes to Platelet Membranes in Tyrode's Solution via Determinants on the Fc Fragment of IgG. S. R. MARNEY, JR.,* D. G. COLLEY,* and R. M. DES PREZ, Nashville, Tenn. ASCI (203)
8. Heavy Chain Subclass of Human Anti-Platelet Autoantibodies. GREGORY W. SISKIND, PETER H. SCHUR, and SIMON KARPATKIN, New York and Boston, Mass. ASCI (299)

9. A Monoclonal Immunoglobulin with Combining Specificity for Transferrin in a Case of Hemochromatosis of the Liver. P. WERNET,* B. KICKHÖFEN,* and M. WESTERHAUSEN,* Freiburg, Germany and New York (introduced by H. G. Kunkel). AFCR
10. Monoclonal F(ab)₂ Fragment Disease. W. E. DE-COTEAU,* T. BISTANY,* R. COOPER,* and T. B. TOMASI, Jr., Buffalo, N. Y. AFCR
11. Ability of a Lymphokinin Preparation to Mediate Delayed Hypersensitivity in Human. N. GROSS and H. VALDIMARSSON,* Chicago, Ill. and London, England. AFCR
12. Immunologic Studies of Human Bronchoalveolar Cells and Secretions. P. F. JURGENSEN,* G. N. OLSEN,* J. E. JOHNSON,* E. W. SWENSON,* E. M. AYOUB, and R. H. WALDMAN,* Gainesville, Fla. (introduced by L. E. Cluff**). ASCI (157)
- and I. R. H. WELSH,* Chapel Hill and Winston-Salem, N. C. (introduced by Carl W. Gottschalk**). ASCI (305)
10. Heterophile and Virus-Specific Antibody Responses in Squirrel Monkeys after Inoculation of Autologous Epstein-Barr Virus-Transformed Lymphoblasts. THOMAS SHOPE* and GEORGE MILLER,* New Haven, Conn. (introduced by Dorothy M. Horstmann**). ASCI (294)
11. Reduction of Postperfusion Cytomegalovirus Infections after the Use of Leukocyte-Depleted Blood. DAVID J. LANG,* PAUL A. EBERT,* BRADLEY M. RODGERS,* H. PRESTON BOGESS,* and ROBERT S. RIXSE,* Durham, N. C. (introduced by Samuel L. Katz). ASCI (174)
12. Passive Hemagglutinating Antibodies (PHA) in Cerebrospinal Fluids (CSF) of Patients with *Herpesvirus hominis* (HVH) Encephalitis. A. MARTIN LERNER, CARL B. LAUTER,* DAVID C. NOLAN,* and MARY JANE SHIPPEY,* Detroit, Mich. ASCI (180)

INFECTIOUS DISEASES

2:00 p.m., Viking Room, Haddon Hall

Co-Chairmen: Dr. Vincent T. Andriole
Dr. Zanvil A. Cohn

1. Experimental *Streptococcus viridans* Endocarditis: Alternatives to Penicillin in Prophylaxis. DAVID DURACK* and ROBERT PETERSDORF, Oxford, England. ASCI (82)
2. Shigella Enterotoxin in Human Shigellosis. G. KEUSCH, E. AINBENDER,* and W. E. VAN HEYNINGEN,* New York and Oxford, England. AFCR
3. A Peroxidase-Mediated, Streptococcus Mitis-Dependent Antimicrobial System. C. B. HAMON* and S. J. KLEBANOFF,** Seattle, Wash. AFCR
4. Human Interferon Induction by Synthetic Polymers: the Effects of Small Nucleotide Fragments and "Loops" on Antiviral Activity. W. A. CARTER, P. M. PITHA,* L. W. MARSHALL,* I. TAZAWA,* and P. O. P. Ts'o,* Baltimore, Md. AFCR
5. NAD Kinase of Polymorphonuclear Leukocytes. L. R. DeCHATELET, C. E. McCALL, M. R. COOPER,* and P. S. SHIRLEY,* Winston-Salem, N. C. AFCR
6. A Model System Simulating Bacterial Phagocytosis and a Screening Test for Phagocytic Dysfunction. THOMAS P. STOSSEL,* Boston, Mass. (introduced by David H. Smith). ASCI (310)
7. In Vitro Inhibition of Phagocytosis and Disruption of Microfilaments by Cytochalasin B. STANTON G. AXLINE* and EVE REAVEN,* Palo Alto, Calif. (introduced by Jack Remington). ASCI (19)
8. A Technique for Assessing the Bactericidal Capability of Individual Human Macrophages. DAVID DRUTZ and MARTIN CLINE, San Francisco, Calif. AFCR
9. Selective Deficiency of Granules Associated with Lysozyme and Lactoferrin in Human Polymorphs (PMN) with Reduced Microbicidal Capacity. J. K. SPITZNAGEL,* M. R. COOPER,* A. E. McCALL,* L. R. DeCHATELET,*

METABOLISM

2:00 p.m., Pennsylvania Room I, Haddon Hall

Co-Chairmen: Dr. Rubin Bressler
Dr. DeWitt Goodman

1. Biologic Action of 1,25-Dihydroxycholecalciferol in Uremic Man. ARNOLD S. BRICKMAN,* JACK W. COBURN,* and ANTHONY W. NORMAN,* Los Angeles and Riverside, Calif. (introduced by Seymour Deyton). ASCI (47)
2. Cause of Endogenous Hypertriglyceridemia in Man. JERROLD OLEFSKY,* GERALD REAVEN,** and JOHN FARQUHAR,** Palo Alto, Calif. AFCR
3. Net Splanchnic Cyclic AMP (cAMP) Production in Normal and Diabetic Men: Effects of Glucagon. J. E. LILJENQUIST,* J. D. BOMBOY,* B. C. SINCLAIR-SMITH,* S. B. LEWIS,* P. W. FELTS,* W. W. LACY,* O. B. CROFFORD, and G. W. LIDDLE,** Nashville, Tenn. ASCI (191)
4. Altered Fat Cell Metabolism in Endogenous Hypertriglyceridemia. R. S. BERNSTEIN,* N. GRANT,* S. R. CRESPIN,* and D. M. KIPNIS,** St. Louis, Mo. and New York. AFCR
5. Plasma and Dietary Cholesterol in Infancy. C. J. GLUECK, R. TSANG,* W. BALESTIERI,* and A. ROBINSON,* Cincinnati, Ohio. AFCR
6. Distribution of Cholesterol Feedback Control in the Guinea Pig. ALAN SWANN* and MARVIN SIPERSTEIN,** Dallas, Tex. ASCI (312)
7. Diabetic Ketoacidosis: Evidence for C-Peptide and Proinsulin Secretion following Recovery. M. B. BLOCK,* M. E. MAKO,* D. F. STEINER,* and A. H. RUBENSTEIN, Chicago, Ill. AFCR
8. Effect of Aldose Reductase Inhibitors on Insulin Release. KENNETH H. GABBAY and WAH JUN TZE,* Boston, Mass. AFCR

9. Hormone-Receptor Interactions in Circulating Cells: Studies in Normal and Pathologic States in Man. JAMES R. GAVIN,* JUANITA A. ARCHER,* MAXINE A. LESNIAK,* PHILLIP GORDEN,* and JESSE ROTH, Bethesda, Md. ASCI (113)
10. Primary Hyperparathyroidism: Immunochemical Characterization of Parathyroid Hormone in the Circulation. J. F. HABENER,* G. V. SEGRE,* D. POWELL,* P. DEE,* and J. T. POTTS, JR., Boston, Mass. ASCI (131)
11. Effect of Phenobarbital (PB) Administration on Subcellular Distribution of $D_3\text{-}^3\text{H}$ in Rat Liver. T. J. HAHN, C. R. SCHARP,* and L. V. AVIOLI, St. Louis, Mo. AFCR
12. Response of Islet Cell and Gut Hormones to Fat Absorption: an "Enteroinsular Axis" for Fat. I. BÖTTGER,* G. FALOONA,* and R. UNGER,** Dallas, Tex. AFCR
11. A Unique Mechanism for Collagenolysis Associated with Invasive Neoplasm in Rabbits. EDWARD D. HARRIS, JR.,* CHARLES S. FAULKNER II,* and SUMNER WOOD, JR.,* Hanover, N. H. and Rahway, N. J. (introduced by Thomas P. Almy**). ASCI (138)
12. Studies on the Alteration of DNA Replication and Repair. STUART SMALL,* FRED GRIFFIN,* and EUGENE P. FRENKEL,** Dallas, Tex. AFCR

NEOPLASIA

2:00 p.m., West Room, Haddon Hall

Co-Chairmen: Dr. Bayard D. Clarkson
Dr. I. Bernard Weinstein

1. Genetic Regulation of the Metabolism of Chemical Carcinogens. JOHN J. HUTTON and P. E. THOMAS,* Lexington, Ky. and Nutley, N. J. AFCR
2. Evidence for Possible Role of Activated Macrophages in Control of Carcinogenesis. JOHN B. HIBBS, JR., LEWIS H. LAMBERT, JR.,* and JACK S. REMINGTON,** Palo Alto, Calif. AFCR
3. Cryopreservation of Viable and Functional Platelet Concentrates. S. J. SLICHTER* and L. A. HARKER, Seattle, Wash. AFCR
4. Serial Studies of In Vitro Colony Formation in Patients with Acute Myelocytic Leukemia. J. M. BULL,* M. J. DUTTERA,* E. STASHICK,* E. S. HENDERSON, and P. P. CARBONE,** Bethesda, Md. AFCR
5. Evidence that the Inhibition of DNA Replication in Tumor Cells Is Not a Specific Function of Cyclic AMP. J. KOWAL, Cleveland, Ohio. ASCI (169)
6. Tumor Peptides in Malignant Melanoma. L. HERBERT MAURER* and JOANNE POMEROY,* Hanover, N. H. and White River Junction, Vt. (introduced by O. Ross McIntyre). AFCR
7. New Data on Frequency of Ectopic Gonadotropin Secretion by Neoplasms. G. D. BRAUNSTEIN,* J. L. VAITUKAITIS, and G. T. ROSS,* Bethesda, Md. AFCR
8. Carcinoembryonic Antigen in Gastrointestinal Carcinoma. D. HOLYOKE,* G. REYNOSO,* T. CHU,* and G. MURPHY, Buffalo, N. Y. AFCR
9. Therapy of Non-Hodgkin's Lymphoma with Adriamycin (A). J. A. GOTTLIEB, J. U. GUTTERMAN, K. B. MC CREDIE, and E. FREI III,** Houston, Tex. AFCR
10. Induction of Tumor-Susceptibility to Cycle-Active Agents in IgG Multiple Myeloma. SYDNEY E. SALMON and BETH A. SMITH,* San Francisco, Calif. and Tucson, Ariz. AFCR

PULMONARY

2:00 p.m., Music Room, Chalfonte

Co-Chairmen: Dr. Edward H. Bergofsky
Dr. Francis J. Klocke

1. Treatment of Acute Respiratory Failure (ARF) with Prolonged Extracorporeal Oxygenation (PECO). R. J. FALLAT, J. D. HILL,* M. DE LEVAL,* R. EBERHART,* K. COHN, M. L. BRAMSON,* and J. OSBORN, San Francisco, Calif. AFCR
2. Nature of Airway Obstruction in Patients with Acute Myocardial Infarction. BENJAMIN INTERIANO,* RICHARD W. HYDE, MORRISON HODGES,* and PAUL N. YU,** Rochester, N. Y. AFCR
3. Control of Breathing in Uremia: Enhanced Ventilatory Response to CO_2 after Hemodialysis. ROBERT HAMILTON,* PAUL EPSTEIN,* LEE HENDERSON,* NORMAN EDELMAN,* and ALFRED FISHMAN,** Philadelphia, Pa. ASCI (134)
4. Factors Determining Carbon Dioxide Elimination in Diseased Lungs. JOHN B. WEST and PETER D. WAGNER,* La Jolla, Calif. ASCI (340)
5. Electromyographic Activity of the Respiratory Muscles as a Measure of CO_2 Sensitivity during Venticulatory Loading. M. D. ALTOSE,* N. N. STANLEY,* and N. S. CHERNIACK, Philadelphia, Pa. AFCR
6. Alpha₁-Antitrypsin Deficiency and Abnormal Protease Inhibitor Phenotypes in Patients with Chronic Lung Disease. C. MITTMAN, T. BARBELA,* and J. LIEBERMAN,** Duarte and Los Angeles, Calif. AFCR
7. The Association of Interstitial Pulmonary Fibrosis (IPF) with Autoantibodies. H. NAGAYA, M. ELMORE,* and C. D. FORD,* Durham, N. C. AFCR
8. Lung Regeneration: Physiologic, Structural, and Cellular Aspects. W. J. BUHAIN* and J. S. BRODY, Philadelphia, Pa. AFCR
9. Lung Dysfunction after Exposure to *Bacillus subtilis* Enzyme Detergent. N. S. SHORE,* R. GREENE,* and H. KAZEMI, Boston, Mass. AFCR
10. Enzyme Implantation: Acquisition of "De Novo" Uricase Activity by Alveolar Macrophages (AM). JAMES THEODORE,* JULIO ACEVEDO,* and EUGENE D. ROBIN,** Stanford, Calif. ASCI (320)
11. Oxygen Toxicity: Influence of Hyperoxia on Pulmonary Protein Synthesis and Lung Mechanics. DONALD MASSARO, GERARDO GACAD,* and GLORIA D. MASSARO,* Washington, D. C. ASCI (206)

12. Chemical Bonding in Sputum Gels. A. D. BARTON,* J. V. POWERS,* and R. V. LOURENCO,* Chicago, Ill. (introduced by Morton D. Bogdonoff**). ASCI (27)

RENAL AND ELECTROLYTES

2:00 p.m., Carolina Room, Chalfonte

Co-Chairmen: Dr. Laurence E. Earley
Dr. Roscoe R. Robinson

1. Extracellular Products of Human Glomerular Cells in Tissue Culture. ALFRED J. FISH,* DAVID M. BROWN,* ROBERT L. VERNIER,** and ALFRED F. MICHAEL, Minneapolis, Minn. ASCI (103)
2. Demonstration of Defects in the Formation of and Response to Cyclic Adenosine 3',5'-Monophosphate in Vasopressin-Resistant Diabetes Insipidus. NORMAN H. BELL,** CHARLES M. CLARK, JR., SUSAN AVERY,* TUSHAR SINHA,* CARL TRYGSTAD, and DONALD O. ALLEN,* Indianapolis, Ind. AFCR
3. Effect of Hypothyroidism on Sodium Reabsorption (T_{Na}) and Renal Na-K-ATPase. ADRIAN I. KATZ* and MARSHALL D. LINDHEIMER,* Chicago, Ill. (introduced by Leslie J. DeGroot). ASCI (161)
4. On the Nature of the Circulating Natriuretic Factor in Chronic Uremia. JACQUES BOURGOIGNIE,* R. WILLIAM SCHMIDT,* KUO HWANG,* TEWFIK NAWAR,* SAULO KLAHR, LEWIS CHASE,* and NEAL S. BRICKER, St. Louis, Mo. ASCI (38)
5. Thiazide Diuretics: Differential Effect on Distal Tubule Calcium and Sodium Transport. R. A. L. SUTTON,* B. R. EDWARDS,* N. L. M. WONG,* P. G. BAER,* and J. H. DIRKS, Montreal, Canada. ASCI (311)
6. Renal Tubule Calcium Reabsorption after Parathyroidectomy. JOHN BUERKERT,* DANIEL MARCUS,* and REX JAMISON,* Stanford, Calif. (introduced by John Luettscher**). ASCI (54)
7. The Effect of Renal Alpha and Beta Adrenergic Stimulation on Proximal Sodium Reabsorption. R. B. AULD, L. M. BLENDIS,* E. A. ALEXANDER, and N. G. LEVINSKY,** Halifax, Canada and Boston, Mass. AFCR
8. Direct Assessment of Pressures, Flows, and Resistances across Single Glomerular Units of the Rat Kidney. B. M. BRENNER,* J. TROY,* R. MACINNES,* and T. DAUGHARTY,* San Francisco, Calif. (introduced by T. B. Bradley, Jr.). ASCI (45)
9. Effect of Hyperoncotic Albumin Expansion (HAE) on Glomerular Hydrostatic Pressure (P_g), Effective Filtration Pressure (EFP), Glomerular Permeability ($L_p \times A$), and Nephron Filtration Rate (gfr) in the Rat. R. C. BLANTZ, F. C. RECTOR, JR., and D. W. SELDIN,** Dallas, Tex. AFCR
10. Electrical Resistance of the Rat Proximal Tubule: Variation with Distance and Effects of Saline. J. F. SEELEY, Montreal, Canada. AFCR
11. Chloride Absorption by Anion Exchange for Bicarbonate in a Urinary Epithelium. BRUCE R. LESLIE,* JOHN H. SCHWARTZ,* and PHILIP R. STEINMETZ,** Boston, Mass. AFCR
12. Dependence of Antidiuretic Hormone (ADH) Response on Cell Sodium. ERNEST F. KRUG* and ARTHUR L. FINN, Chapel Hill, N. C. AFCR

American Federation for Clinical Research, Inc.

29TH ANNUAL MEETING

SUNDAY MORNING, APRIL 30

GENERAL MEETING

8:30 a.m., Pennsylvania Room, Haddon Hall, Dr. Francois M. Abboud, Presiding

BUSINESS SESSION

INTERMISSION

SCIENTIFIC SESSION

SCIENTIFIC SESSION

(concluded)

(The presentation of each paper will be limited to 12 min.)

1. Mechanism of Globin Initiation on Human, Rabbit, and Sheep Hemoglobin Messenger RNA. A. W. NIENHUIS, R. G. CRYSTAL, N. A. ELSON, and W. F. ANDERSON, Bethesda, Md.
2. Influence of Physiological Factors on Angiotensin (A) 1 to 2 Conversion in the Isolated Perfused Dog Lung. BARRY L. FANBURG and JON B. GLAZIER, San Francisco, Calif.
3. Thyrotropin Releasing Hormone (TRH) : Binding Interactions with a Specific Pituitary Membrane Receptor. J. WILBER and M. J. SEIBEL,* Chicago, Ill.
4. Mechanism of the Ascending Limb of Starling's Curve at Elevated Left Ventricular (LV) Filling Pressures. C. YORAN, J. W. COVELL, and J. ROSS, JR., La Jolla, Calif.
5. Histaminase Activity: a Biochemical Marker for Medullary Carcinoma of the Thyroid. S. B. BAYLIN,* M. A. BEAVEN,* L. M. BUJA,* and H. R. KEISER, Bethesda, Md.
6. Mechanisms of Steroid Suppression of Cellular Immunity. JAMES E. BALOW* and ALAN S. ROSENTHAL, Washington, D. C.
7. Isolation of a Natriuretic Factor from the Posterior Pituitary. H. J. GRTELMAN and W. B. BLYTHE,** Chapel Hill, N. C.
8. The Systems Approach to the Staffing Pattern of a Health Maintenance Organization. ARCHIE GOLDEN* and HENRY SEIDEL,* Baltimore, Md. (introduced by Malcolm L. Peterson).
9. The Glucose Receptor: a Defective Mechanism in Diabetes Mellitus Distinct from the β -Adrenergic Receptor. R. P. ROBERTSON and D. PORTE, JR., Seattle, Wash.
10. Intestinal Mitochondrial Function in the Chronic Uremic State. JEAN RUSSEL* and LOUIS AVIOLI, St. Louis, Mo.

PRESIDENTIAL ADDRESS

THE AMERICAN FEDERATION FOR CLINICAL RESEARCH SYMPOSIUM

WHAT WILL BE THE IMPACT OF NATIONAL HEALTH INSURANCE ON ACADEMIC MEDICINE AND RESEARCH?

Saturday, April 29, 4:00 p.m., Pennsylvania Room II, Haddon Hall

Chairman: Malcolm L. Peterson

1. VICTOR SIDEL, New York.
2. ROBERT EBERT, Boston, Mass.
3. ROBERT BLENDON, Washington, D. C.

SATURDAY EVENING, APRIL 29

SUBSPECIALTY MEETINGS

(The presentation of each paper will be limited to 10 min.)

CARDIOVASCULAR I

7:30 p.m., Pennsylvania Room I, Haddon Hall

Chairman: William B. Hood

1. A Role for the Carotid Body in Cardiovascular Control in Man. ROBERT LUGLIANI,* BRIAN J. WHIPP,* and KARLMAN WASSERMAN,** Torrance, Calif.
2. Left Ventricular Compliance and Abnormally Contracting Left Ventricular Segments following Myocardial Infarction. M. SMITH, R. O. RUSSELL, JR., B. J. FEILD,* and C. E. RACKLEY, Birmingham, Ala.
3. Prognostic Implications of Left Ventricular Stroke Work Index (SWI) in Acute Myocardial Infarction (AMI). RAVI PRAKASH,* JAMES FORRESTER,* WILLIAM W. PARMLEY, and H. J. C. SWAN,** Los Angeles, Calif.
4. Effects of Endotoxin Fractions in Primates. MICHAEL REICHGOTT, RALPH FORSYTH,* and KENNETH MELMON, San Francisco, Calif.
5. C¹⁴-Urea as an In Vivo Indicator of Increased Vascular Permeability in Experimental Pulmonary Edema (PE). K. L. BRIGHAM* and J. D. SNELL,* Nashville, Tenn. (introduced by W. W. Lacy).
6. Adrenergic Mediation of Sinoatrial Nodal Acceleration Caused by Acetylcholine and Angiotensin. DWAIN L. ECKBERG, SAKIB M. NAJJAR,* and FRANCOIS M. ABBoud, Iowa City, Iowa.
7. Non-Uniform Effects of Digitalis on the Peripheral Purkinje System. GARY J. ANDERSON,* JOHN C. BAILEY, and KALMAN GREENSPAN,** Indianapolis, Ind.

CARDIOVASCULAR II

7:30 p.m., Pennsylvania Room III, Haddon Hall

Chairman: James Scheuer

1. Myocardial Metabolic Derangements as Early Predictors of Mortality in Myocardial Infarction. V. S. MATHUR, G. V. R. K. SHARMA,* F. A. MOLOKHIA,* W. B. HOOD, JR., J. C. NORMAN, and J. V. MESSEY, Boston, Mass.
2. Heterogeneous Trans-Myocardial Function in Ischemia. STEPHEN H. DYKE,* EDWARD S. KIRK,* and EDMUND H. SONNENBLICK, Boston, Mass.
3. Response of the Rat Heart to Strenuous Exercise: Physical, Biochemical, and Functional Correlates. EZRA A. AMSTERDAM, JOAN WICKMAN-COFFELT,* YVES CHOQUET,* TEIKO KAMIYAMA,* JOHN LENZ,* ROBERT ZELIS, and DEAN T. MASON, Davis, Calif.

4. Effect of Tachycardia on Left Ventricular (LV) Contractility in Conscious Dogs. C. B. HIGGINS, S. F. VATNER, R. W. MILLARD,* D. FRANKLIN,* and E. BRAUNWALD,** La Jolla, Calif.
5. Action of Human Lung Converting Enzyme on Angiotensin and Bradykinin. A. FITZ, M. OVERTURF, and S. WYATT,* Iowa City, Iowa.
6. Inhibition by Insulin of Protein Breakdown and Amino Acid Release from Beating Fetal Mouse Hearts Maintained for Long Periods In Vitro. K. WILDENTHAL, F. I. POLSKY,* and J. R. WAKELAND,* Dallas, Tex.
7. Close Bipolar Right and Left Ventricular Electrograms in Human Bundle Branch Block. A. S. AGHA,* C. A. CASTILLO,** and A. CASTELLANOS, JR.,** Miami, Fla.

ENDOCRINOLOGY I

7:30 p.m., Carolina Room, Chalfonte

Chairman: Stanley G. Korenman

1. Studies of the Molecular Components of the Cardiac Histamine Receptor. IRWIN KLEIN and GERALD S. LEVEY, Miami, Fla.
2. Ouabain Induced Release of ACTH and GH, In Vitro. NORMAN FLEISCHER, GUY ZIMMERMAN,* WILLIAM SCHINDLER,* and MAX HUTCHINS,* Houston, Tex.
3. Regulation of Adrenal Ornithine Decarboxylase (ODC) by ACTH and Cyclic AMP. C. DOBBINS,* R. RICHMAN,* L. UNDERWOOD, S. VOINA,* J. VAN WYK,** and R. L. NEY, Chapel Hill, N. C.
4. Evidence for an Adrenal Growth Factor Other Than ACTH. J. H. LEVINE,* W. E. NICHOLSON,* and D. N. ORTH, Nashville, Tenn.
5. Stimulation by Phagocytosis of L-Thyroxine (T₄) Deiodination in Human Leukocytes. K. A. WOEGER and S. H. INGBAR,** Boston, Mass.
6. Hypothalamic and Cerebrospinal Fluid Neurophysins. E. A. ZIMMERMAN, A. G. ROBINSON, P. W. CARMEL,* K. C. HSU,* M. TANNENBAUM,* and A. G. FRANTZ,** New York and Pittsburgh, Pa.
7. Mammary Carcinoma: a Specific Biochemical Defect in Autonomous Tumors. W. L. McGuire, San Antonio, Tex.

GASTROENTEROLOGY I

7:30 p.m., Vernon Room, Haddon Hall

Chairman: Daniel H. Winship

1. Chenodeoxycholic Acid (CDCA) Inhibits Sterol Biosynthesis in Cerebrotendinous Xanthomatosis (CTX). GERALD SALEN and THOMAS MERIWETHER,* New York,

2. Regulation of Hepatic Cholesterol Synthesis in Cholestasis: Intrahepatic Factors. A. COOPER* and R. OCKNER, San Francisco, Calif.
3. Phenobarbital (PB) Therapy in Primary Biliary Cirrhosis (PBC). D. L. ERNEST,* D. R. DEAL,* and W. H. ADMIRAND, San Francisco, Calif.
4. Mechanisms of Cholerheic Enteropathy: Bile Salt Stimulation of Active Anion Secretion. H. J. BINDER and C. L. RAWLINS,* New Haven, Conn.
5. Predominance of HL-A8 in Gluten-Sensitive Enteropathy (GSE). Z. M. FALCHUK,* G. N. ROGENTINE, and W. STROBER, Bethesda, Md.
6. Inhibition of Cholera Toxin (CT) Induced Secretion. H. N. MAIMON,* J. G. BANWELL,* and T. R. HENDRIX,** Baltimore, Md.
7. Identification of Four Peptic Cells in Man. I. MICHAEL SAMLOFF and WILLIAM M. LIEBMAN, Torrance, Calif.
3. Allogeneic Bone Marrow Transplantation (BMTX) following Total Body Irradiation (TBI) and L-Asparaginase (L-ASP). G. HERZIG,* R. CAROLLA,* T. ALVEGARD,* and R. G. GRAW, Jr., Bethesda, Md.
4. Demonstration of Cytolytic Antibody Specific for Erythroblasts in Pure Red Cell Aplasia (PRCA). S. D. ZAENTZ* and S. B. KRANTZ, Nashville, Tenn.
5. Bicalonal Myeloma: Evidence for Production of IgG and IgA Paraproteins by a Single Cell Line. RICHARD A. RUDDERS, VINCENT YAKULIS,* and PAUL HELLER,** Chicago, Ill.
6. Marrow and Mineral Scintigraphic Studies in Sickle Cell Disease. CHARLES F. HAMMEL,* SALLY J. DENARDO,* JERRY P. LEWIS, and GERALD L. DENARDO, Davis, Calif.
7. Scanning Electron Microscopic (SEM) Changes during In Vivo Hemolysis by Hyperoxia (OPH). J. O. REYNOLDS* and C. E. MENGELE, Columbia, Mo.

HEALTH CARE RESEARCH

7:30 p.m., Solarium, Haddon Hall

Chairman: David R. Challoner

1. Quality Control of the Delivery of Medical Care in an Outpatient Clinic. EDWARD J. GOETZL, ELIZABETH DOWNING,* KATHRYN ERAT,* PHIN COHEN,** and ANDREW G. JESSIMAN,* Boston, Mass.
2. Comparison of Two Methods for Assessing Quality of Care. ROBERT H. BROOK* and FRANCIS A. APPEL,* Baltimore, Md. (introduced by John W. Williamson).
3. Simulation Modeling: a Tool for Medical Planning. DUKE H. BAKER and JOSEPH J. MAMLIN,* Indianapolis, Ind.
4. Effect of Physician's Assistants on Patient Care. J. ERIC HAMMARSTEN,* W. D. STANHOPE,* and A. W. HORSLEY,** Oklahoma, City, Okla.
5. A Young Child Nutrition Program in Rural Jamaica. MICHAEL H. ALDERMAN, New York and Kingston, Jamaica.
6. Lowering Broken Appointment Rates at a Medical Clinic. STEVEN A. SCHROEDER,* Washington, D. C. (introduced by Thomas E. Piemme).
7. The Problem-Oriented Coronary Care Unit: a Model System for Community Hospitals. ALAN D. KAPLAN,* DONALD C. ANDRESEN,** and RICHARD K. TOMPKINS,* Hanover, N. H.

HEMATOLOGY I

7:00 p.m., Windsor Room, Haddon Hall

Chairman: Richard L. DeGowin

1. The Effect of Erythropoietin on Alpha and Beta Chain Synthesis by Cultured Human Marrow Cells. RICHARD D. LEVERE and HIDEAKI MIZOGUCHI,* Brooklyn, N. Y.
2. Rapid Stem Cell Differentiation Induced by Nandrolone Decanoate. D. GORSHEIN, W. N. HAIT,* E. BESA,* J. H. JEPSON, and F. H. GARDNER,** Philadelphia, Pa.

NATIONAL BLOOD CLUB

SYMPOSIUM

RECENT ADVANCES IN BASIC CANCER RESEARCH

9:00 p.m., Windsor Room, Haddon Hall

Chairman: Seymour Perry

1. The Intracellular Regulation of Lymphocyte Growth. ARNOLD RUBIN, New York.
2. Immunological Induction of Malignant Lymphomas. ROBERT S. SCHWARTZ, Boston, Mass.
3. Structural and Biosynthetic Disorders of Immunoglobulins. EDWARD C. FRANKLIN, New York.
4. Human Cancer and the RNA Tumor Viruses. S. SPEIGELMAN, New York.

INFECTIOUS DISEASES

7:30 p.m., Pennsylvania Room II, Haddon Hall

Chairman: Gilbert M. Schiff

1. Host Defenses during Primary Venezuelan Equine Encephalomyelitis Virus Infection in Mice. STANLEY RABINOWITZ* and WILLIAM ADLER III,* Frederick, Md. (introduced by W. R. Beisel).
2. A Second Mechanism of Fungicidal Activity in Human Neutrophils. ROBERT I. LEHRER, San Francisco, Calif.
3. Intracellular Site of Iodination by Granulocytes (PMN). RICHARD K. Root and THOMAS P. STOSSEL, Philadelphia, Pa. and Boston, Mass.
4. A New Method to Measure the Biologically Active Antibiotics in Human "Interstitial" Fluid. JAMES S. TAN, A. Trott,* C. WATANAKUNAKORN, and J. P. PHAIR, Cincinnati, Ohio.

5. The Isolation and Immunochemical Characterization of a Serologically Important Gonococcal Antigen. M. A. APICELLA and J. C. ALLEN,** Buffalo, N. Y.
6. Epidemiology of Coronavirus Infections in Infants with Acute Lower Respiratory Disease. M. A. MUFSON, K. MCINTOSH, R. K. CHAO,* H. E. KRAUSE, R. WASIL,* and H. E. MOCEGA,* Denver, Colo.
7. Bacteremia after Liver Biopsy. R. V. MCCLOSKEY, M. S. GOLD,* and E. WESER, San Antonio, Tex.

JOHN FARQUHAR,** and GERALD REAVEN,** Palo Alto, Calif.

6. Correlation of Forearm Muscle and Adipose Tissue Metabolism in Obesity before and after Weight Loss. E. S. HORTON, E. DANFORTH, JR., E. A. H. SIMS,** and L. B. SALANS, Burlington, Vt. and Hanover, N. H.
7. Propranolol (P) Preparation for Surgery in Thyrotoxicosis. J. MACKIN,* J. J. CANARY,** S. FIDLER,* M. COBB,* R. COFFEY,* and J. ROUTON, Washington, D. C.

INFECTIOUS DISEASES

SYMPOSIUM

NEWER KNOWLEDGE OF AND APPROACHES TO THE CONTROL AND PREVENTION OF GONOCOCCAL DISEASE

9:15 p.m., Pennsylvania Room II, Haddon Hall

Co-Chairmen: Leslie C. Norins
Jay P. Sanford

1. New Clinical Features and Epidemiology of Gonococcal Infection. KING HOLMES, Seattle, Wash.
2. Gonococcal Arthritis and the Therapeutic Trial of Penicillin. ABRAHAM GARCIA and GENE STOLLERMAN, Memphis, Tenn.
3. Multiple Antibiotic Resistance in the Gonococcus. FRED SPARLING, Chapel Hill, N. C.
4. Current Status of Investigation of Gonococcal Antigens. STEPHEN KRAUS, Atlanta, Ga.
5. Serological Changes in Chimpanzees with Experimental Gonococcal Infection. WILLIAM BROWN, Atlanta, Ga.
6. Gonococcal Antibodies in the Female Genital Tract. RICHARD O'REILLY, Boston, Mass.

METABOLISM I

7:30 p.m., Music Room, Chalfonte

Chairman: Michael F. Ball

1. Alanine Metabolism in Man: Effects of Ethanol. R. A. KREISBERG, A. M. SIEGAL, A. W. STANLEY,* C. E. RACKLEY, and R. O. RUSSELL, Birmingham, Ala.
2. The Glycemic Response to Alanine: Index of Glucagon Secretion in Man. J. K. WISE, R. HENDLER,* and P. FELIG, New Haven, Conn.
3. Glucagon: the Natriuretic Hormone of Starvation? C. D. SAUDEK,* P. R. BOULTER,* R. F. SPARK, and R. A. ARKY,** Boston, Mass.
4. Effect of Growth Hormone upon Glucose Metabolism and Cellularity in Adipose Tissue. BRUCE R. BATCHELOR* and JUDITH STERN,* New York (introduced by Jules Hirsch**).
5. Relationship between Fat Cell Size and Insulin Resistance In Vivo. MICHAEL STERN, JERROLD OLEFSKY,*

METABOLISM

SYMPOSIUM

FRONTIERS IN LIPID TRANSPORT

9:15 p.m., Music Room, Chalfonte

Chairman: Arthur A. Spector

1. Effects of Apolipoproteins on Lipoprotein Lipase Activity. W. VIRGIL BROWN, La Jolla, Calif.
2. The Structural Heterogeneity of Low Density Lipoprotein in Type IV Hyperlipoproteinemia: a Deviation from the Normal. WALDO R. FISHER, Gainesville, Fla.
3. Mesophase Lipid, a Form of Plasma Lipid Transport? STEVEN H. QUARFORDT, Durham, N. C.

NEOPLASTIC DISEASES

7:30 p.m., Garden Room, Haddon Hall

Chairman: Martin J. Cline

1. A New Syndrome of Hypercalcemia with Cancer. DAVID POWELL,* F. R. SINGER, T. M. MURRY,* C. MINKIN,* and J. T. POTTS, JR., Boston, Mass.
2. Adriamycin in Advanced Osteogenic Sarcoma. ENGRACIO P. CORTES,* JAMES F. HOLLAND,** JAW J. WANG,* and LUCIUS F. SINKS,* Buffalo, N. Y.
3. A Novel Vitamin B₁₂-Binding Protein in Serum from Two Patients with Hepatoma. S. WAXMAN and H. S. GILBERT,** New York.
4. Identification of a Morphologically Distinctive Proliferating Cell in Cultures of Neoplastic Plasma Cells. DAVID GOLDE and MARTIN CLINE, San Francisco, Calif.
5. Prevention of Oncorna Virus Transformation In Vivo and In Vitro by Anthracyclines and Actinomycins. MARTIN A. APPLE, LEWIS OSOFSKY,* WARREN LEVISON,* JOAN PAGANELLI,* and ERIC WILDENRADT,* San Francisco, Calif.
6. Detection of Leukemia Associated Antigens in Identical Twins. EUGENE ROSENBERG, RONALD HERBERMAN, PAUL LEVINE, JOHN WUNDERLICH,* ROGER HALTERMAN,* and JAMES McCOWAN,* Bethesda, Md. and Miami, Fla.
7. Splenectomy and Radiation Sensitivity. JERRY P. LEWIS and LOIS F. O'GRADY, Davis, Calif.

PULMONARY I

7:30 p.m., Rutland Room, Haddon Hall

Chairman: Donald Massaro

1. Effect of Low O₂ Tensions on Red Cell Glycolysis, NAD⁺/NADH Ratios and Transmembrane Potential (TMP): the Pasteuroid Effect. STANLEY M. CASSAN,* JAMES THEODORE,* and EUGENE D. ROBIN,** Stanford, Calif.
2. Pulmonary Immune Functions: Dissociation between Local IgG Synthesis and Cellular Immunity. H. B. KALTREIDER* and S. E. SALMON, San Francisco, Calif.
3. Alpha₁ Antitrypsin (AAT) Variants-Correlation with Forced Expiration. D. R. WEBB,* R. W. HYDE, P. L. TOWNES,* and R. H. SCHWARTZ, Rochester, N. Y.
4. Dimensional Response of Central and Peripheral Airways to Transpulmonary Pressure. G. M. TISI, V. D. MINH,* and P. J. FRIEDMAN,* San Diego, Calif.
5. Respiratory System Static Compliance in Conscious Injured Patients. J. C. NEWALL,* R. E. DUTTON,** and S. R. POWERS, Jr.,** Albany, N. Y.
6. Redistribution of Regional Ventilation Caused by Selective Diaphragmatic Inhalation. G. D. ONSTAD,* J. E. WILSON III, M. S. SACKNER, and R. L. JOHNSON, Jr.,** Dallas, Tex. and Miami Beach, Fla.
7. Total Lung Lymph Flow and Interstitial Albumin Distribution. T. R. VAUGHN, Jr.,* A. J. ERDMANN III,* K. L. BRIGHAM,* W. C. WOOLVERTON,* and N. C. STAUB,* San Francisco, Calif. (introduced by M. B. McIlroy).

RENAL AND ELECTROLYTES I

7:30 p.m., Viking Room, Haddon Hall

Chairman: Manuel Martinez-Maldonado

1. Micropuncture Study of Proximal Tubule Phosphate Transport (PTPT) in the Dog. S. F. WEN, Madison, Wis.
2. Acute Renal Effects of 1,25-Dihydroxycholecalciferol (1,25 DHCC). P. FERNANDEZ,* J. B. PUSCHETT, H. DELUCA,* I. BOYLE,* R. GRAY,* and J. OMDAHL,* Madison, Wis.
3. Evidence for the Intraluminal Action of Plasma Factor(s) on Proximal Na Reabsorption. E. BARTOLI and L. E. EARLEY, San Francisco, Calif.
4. Proximal Tubule Potential Difference: Dependence on Glucose, HCO₃, and Amino Acids. JUHA P. KOKKO, Dallas, Tex.
5. Prostaglandins: a Possible Role in the Reduced Proximal Reabsorption of Contralateral Kidney Clamping. J. H. DIRKS, M. LENNHOFF,* and N. L. M. WONG,* Montreal, Canada.

6. The Diuretic Effect of Anti-Diuretic Hormone. N. A. KURTZMAN and P. W. ROGERS,* San Antonio, Tex.
7. Vasopressin: Action on Cortical Collecting Ducts (CCD) of the Rat. C. C. TISHER, P. B. WOODHALL,* and R. R. ROBINSON, Durham, N. C.

RENAL AND ELECTROLYTES II

7:30 p.m., West Room, Haddon Hall

Chairman: Richard E. Rieselbach

1. On the Renal Adaptation of Acid Excretion. ANTON C. SCHOOLWERTH* and SAULO KLAHR, St. Louis, Mo.
2. Aldosterone Stimulation of Urinary Acidification in the Absence of Sodium Reabsorption. D. D. FANESTIL and J. H. LUDENS,* La Jolla, Calif.
3. Effect of Furosemide (F) on Intrarenal Distribution of Blood Flow in the Dog. M. A. KATZ, J. D. WALLIN,* R. C. BLANTZ, J. P. BRENNAN,* F. C. RECTOR, JR., and D. W. SELDEN,** Dallas, Tex.
4. Mechanism of Antidiuretic Effect of Interruption of Parasympathetic Pathways. T. BERL,* J. A. HARBOTTLE,* and R. W. SCHRIER, San Francisco, Calif.
5. Effect of K⁺ Loading on Plasma Renin Activity (PRA), Renal Renin Concentration (RRC), and HgCl₂ Acute Renal Failure (ARF) in the Rat. T. A. KOTCHEN, W. FLAMENBAUM, D. R. WALTERS,* and J. S. MCNEIL,* Washington, D. C.
6. On the Mechanism of Renal Wasting of Calcium (Ca) in Idiopathic Hypercalciuria (HC). G. EKNOYAN, C. DICHOZO,* M. MARTINEZ-MALDONADO, and W. SUKI, Houston, Tex.
7. Possible Role of Impaired Renal Production on 1,25 DiOH-Cholecalciferol in Causing Reduced Calcium Absorption in Chronic Uremia. D. L. HARTENBOWER, J. W. COBURN, C. R. REDDY,* and A. W. NORMAN,* Riverside, Calif.

RENAL

SYMPOSIUM

RENAL HYDROGEN ION METABOLISM

9:15 p.m., West Room, Haddon Hall

Chairman: Gerald F. DiBona

1. Cellular Mechanisms of Urinary Acidification. PHILIP R. STEINMETZ, Boston, Mass.
2. Renal Acidosis. R. CURTIS MORRIS, JR., San Francisco, Calif.
3. Metabolic Alkalosis: Volume and Anion. JORDAN J. COHEN, Boston, Mass.

SUNDAY EVENING, APRIL 30
SUBSPECIALTY MEETINGS

(The presentation of each paper will be limited to 10 min.)

CARDIOVASCULAR III

7:30 p.m., Viking Room, Haddon Hall

Chairman: Charles E. Rackley

1. Instantaneous Left Ventricular Tension-Velocity Relations Obtained with an Electromagnetic Velocity Catheter in the Ascending Aorta. K. L. PETERSON, J. B. UTHER, R. SHABETAI,** and E. BRAUNWALD,** San Diego, Calif.
2. Dynamic Evolution of Ventricular Aneurysm in Experimental Myocardial Infarction: Sequential Segment-Length Changes in Infarcted and Non-Infarcted Myocardium. P. S. VOKONAS,* F. A. PIRZADA,* and W. B. HOOD, JR., Boston, Mass.
3. Ventricular Volumes and Ejection Fraction One Year after Coronary Vein Bypass Graft Surgery. ROBERT ARBOGAST,* ALAIN SOLIGNAC,* and MARTIAL G. BOURASSA, Montreal, Canada.
4. Effect of Right Ventricular Volume Change from Acute Pulmonary Hypertension on Left Ventricular Dimension. E. W. STOOL,* C. B. MULLINS, S. J. LESHIN,* and J. H. MITCHELL, Dallas, Tex.
5. Neurogenic Control of Vascular Tone in Heart Failure. P. G. SCHMID, L. D. NELSON,* H. E. MAYER,* A. L. MARK, D. D. HEISTAD, and F. M. ABBoud, Iowa City, Iowa.
6. Reversibility of Hypokalemic (K) Cardiomyopathy. C. E. HARRISON, G. COOPER,* K. W. ZUJKO,* and H. N. COLEMAN, Rochester, Minn.
7. Abnormalities of Muscle Mechanics in Coronary Artery Disease before the Development of Congestive Heart Failure. ANTOINE SALEL, DEAN T. MASON, EZRA A. AMSTERDAM, and ROBERT ZELIS, Davis, Calif.

CARDIOVASCULAR IV

7:30 p.m., Pennsylvania Room I, Haddon Hall

Chairman: Peter L. Frommer

1. Effect of Hydralazine on Coronary Flow and Resistance. H. B. BARNER and M. JELLINEK,* St. Louis, Mo.
2. Treatment of Congestive Heart Failure following Myocardial Infarction with Nitroglycerin. HERMAN K. GOLD,* ROBERT C. LEINBACH,* and CHARLES A. SANDERS, Boston, Mass.
3. Hemodynamic Response to Phentolamine Infusion in Acute Myocardial Infarction Associated with Hypertension. D. T. KELLY,* C. DELGADO,* D. R. TAYLOR,*

and B. PITT,* Baltimore, Md. (introduced by Richard S. Ross).

4. Interaction of Thermal and Baroreceptor Reflexes in Man. D. D. HEISTAD, F. M. ABBoud, A. L. MARK, and P. G. SCHMID, Iowa City, Iowa.
5. Predominant Right Ventricular Failure in Clinical and Experimental Right Ventricular Infarction. N. GUIHA,* C. J. LIMAS,* M. I. BRODER,* and J. N. COHN,** Washington, D. C.
6. The Effect of Heart Rate on the Width of the Vulnerable Period. JOHN V. TEMTE,* EDUARDO SEROPPIAN,* BERNARD LOWN,* and MARSHALL WOLF,* Boston, Mass. (introduced by Michael D. Klein).
7. Electrocardiographic (ECG) and His Bundle Studies during Coronary Angiography (CA). RASHID A. MASSUMI,** ANTONIO DEMARIA,* EZRA A. AMSTERDAM, ROBERT ZELIS, JAMES MCFARLAND,* and DEAN T. MASON, Davis, Calif.

CARDIOVASCULAR

SYMPOSIUM

MYOCARDIAL CONTRACTILITY

9:15 p.m., Pennsylvania Room I, Haddon Hall

Chairman: Robert Zelis

1. Inotropic Control Mechanisms. HARRY A. FOZZARD, Chicago, Ill.
2. The Measurement of Myocardial Contractility. EDMUND SONNENBLICK, Boston, Mass.
3. The Assessment of Contractility in Man. ROBERT ZELIS, Davis, Calif.

CLINICAL PHARMACOLOGY

7:30 p.m., Pennsylvania Room II, Haddon Hall

Chairman: William N. Kelley

1. Role of the Hepatic Microsomal Ethanol Oxidizing System (MEOS) In Vivo. C. S. LIEBER and L. M. DECARLI,* Bronx, N. Y.
2. Release of Cardiac Norepinephrine (NE) by L-Dopa. LEWIS LANDSBERG, West Haven, Conn.
3. Impairment of Digoxin Absorption by Neomycin. J. LINDEMBAUM, R. M. MAULITZ,* J. R. SAHA,* N. SHEA,* and V. P. BUTLER, JR.,** New York.
4. Pharmacological Studies of CNS Toxicity in Patients with Psoriasis Treated with Azaridine. C. H. DOO-

- LITTLE,* C. J. McDONALD, and P. CALABRESI,** Providence, R. I.
5. Rickets Associated with Anticonvulsant Medications. KEITH G. TOLMAN, WILLIAM JUBIZ, HECTOR F. DELUCA, and JAMES W. FRESTON, Salt Lake City, Utah and Madison, Wis.
 6. Colestipol, an Investigational Bile-Acid Sequestering Agent for Lowering Serum Cholesterol. J. L. PROBSTFIELD,* G. LEE,* B. CAMPION,* and D. B. HUNNINGHAKE, Minneapolis, Minn.
 7. The Efficacy of Sitosterols in the Treatment of Hypercholesterolemia. R. S. LEES, G. SCHONFELD, G. S. MYERS,* C. GULBRANDSEN, and P. K. GEORGE,* Cambridge, Mass.

CLINICAL PHARMACOLOGY

SYMPOSIUM

THERAPEUTIC IMPLICATIONS OF DRUG METABOLISM

9:15 p.m., Pennsylvania Room II, Haddon Hall

Co-Chairmen: Marcus M. Reidenberg
Rubin Bressler

1. Clinical Pharmacokinetics, Multicompartment Models, and Their Therapeutic Implications. GERHARD LEVY, Buffalo, N. Y.
2. Protein Binding of Drugs. HARVEY SOLOMON, Hershey, Pa.
3. Therapeutic Implications of Blood Level Measurements of Drugs. EDWARD M. SELLERS, Boston, Mass.
4. Effect of Liver or Kidney Disease on Drug Elimination. MARCUS M. REIDENBERG, Philadelphia, Pa.

DERMATOLOGY

7:30 p.m., Solarium, Haddon Hall

Chairman: Frank Parker

1. Induction of Contact Unresponsiveness in Guinea Pigs Fed Carcinogens. J. R. POMERANZ, Cleveland, Ohio.
2. Acid Nucleases of Mammalian Epidermal and Hair Root Cells. TERUO MIYAGAWA* and IRWIN M. FREEDBERG, Boston, Mass.
3. Abnormal Epidermal Proteins in the Harlequin Fetus. L. A. GOLDSMITH and H. P. BADEN,** Boston, Mass.
4. In Vitro Inhibition of Lymphocyte Transformation by Serum from Patients with Sarcoidosis. R. W. BELCHER,* J. F. CARNEY,* and G. A. NANKERVIS,* Cleveland, Ohio (introduced by Jerome R. Pomeranz).
5. Differentiation of Types 1 and 2 Herpes Simplex Virus by Neutralization with Sulfated Polyanions. R. D. HUTTON* and G. R. FRENCH,* San Francisco, Calif. and Fort Baker, Calif. (introduced by W. L. Epstein).

6. Ultrastructural Features of Langerhan's Cells at Sites of Negative and Positive Contact Allergic Patch Test Reactions. INGA SILBERBERG, New York.
7. Antifungal Properties of *Bacillus Uniflagellatus* Metabolites. GARY J. CALTON* and JOSEPH W. BURNETT, Baltimore, Md.

ENDOCRINOLOGY II

7:30 p.m., Carolina Room, Chalfonte

Chairman: Bert W. O'Malley

1. A New Efficient Method for Specific Measurement of Human Chorionic Gonadotropin (hCG) in Human Plasma. J. L. VAITUKAITIS, G. D. BRAUNSTEIN,* and G. T. ROSS,* Bethesda, Md.
2. A Radioligand-Receptor Assay for Luteinizing Hormone (LH) and Its Subunits. F. E. COLE,* K. DAVIS,* R. A. HUSEBY,* L. E. REICHERT,* and B. F. RICE, New Orleans, La., Denver, Colo., and Atlanta, Ga.
3. Properties of Cytosol Proteins Which Bind Thyroxine (T₄) and Triiodothyronine (T₃). BARRY S. HANDWERGER* and PAUL J. DAVIS, Baltimore, Md.
4. Differentiated Function of Granulosa Cells in Long Term Tissue Culture: Uniform Potential of Cells Derived from a Wide Variety of Follicles. J. BECEIRO,* P. M. LOH,* B. M. SHERMAN, D. K. GRANNER, and S. G. KORENMAN, Iowa City, Iowa.
5. Stimulation of Cyclic 3',5'-Guanosine Monophosphate (cGMP) in Dog Thyroid Slices by Acetylcholine (ACh) and Sodium Fluoride (NaF). KAMEJIRO YAMASHITA* and JAMES B. FIELD,** Pittsburgh, Pa.
6. Absorption, Turnover, and Conversion of L-Thyroxine (T₄) to L-Triiodothyronine (T₃) in Man. MARTIN I. SURKS, ALAN R. SCHADLOW,* and JACK H. OPPENHEIMER,** Bronx, N. Y.
7. Parathyroid Hormone (PTH) and Calcitonin (CT) Inter-Relationships in Clinical Disorders of Calcium Metabolism. L. J. DEFTOS, K. SWENSON,* and H. BODE,* Boston, Mass. and La Jolla, Calif.

ENDOCRINOLOGY

SYMPOSIUM

HYPOTHALAMIC CONTROL OF PITUITARY FUNCTION

9:15 p.m., Carolina Room, Chalfonte

Chairman: James A. Pittman, Jr.

1. Neuroregulation of Growth Hormone Secretion. JOSEPH B. MARTIN, Montreal, Canada.
2. Regulation of Thyrotropin Secretion. JEROME M. HERSCHMAN, Birmingham, Ala.
3. Discussant: SEYMOUR REICHLIN, Hartford, Conn.

GASTROENTEROLOGY II

7:30 p.m., Vernon Room, Haddon Hall

Chairman: James Christensen

1. The Abnormal Lower Esophageal Sphincter in Pernicious Anemia. R. L. FARRELL* and D. O. CASTELL, Philadelphia, Pa.
2. Neurogenic Basis of Lower Esophageal Sphincter Relaxation. ARTHUR TUCH* and SIDNEY COHEN, Philadelphia, Pa.
3. Macromolecular Uptake from the Gut: Effect of Oral Immunization. W. ALLAN WALKER,* KURT A. ISSELBACHER, and KURT J. BLOCH,* Boston, Mass.
4. Protein Digestion in Human Intestine: Luminal, Mucosal, and Plasma Amino Acid Level Changes following Meals. S. ADIBI and D. MERCER,* Pittsburgh, Pa.
5. Effect of Intravenous Alimentation on Intestinal Disaccharidases and Glycolytic Enzymes. HARRY L. GREENE, FRED B. STIFEL, and ROBERT H. HERMAN,** Denver, Colo.
6. The Gastrin Cell: Characterization by Electron Microscopy Using Specific Immunochemical Techniques. J. E. McGUIGAN and M. H. GREIDER,* St. Louis, Mo.
7. Biological Activity of Basic Gastrin (BG). M. G. DURKIN,* Columbia, Mo. (introduced by D. H. Winship).

GASTROENTEROLOGY**SYMPOSIUM****ANTRAL PACEMAKERS, GASTRIC EMPTYING, AND GASTRIC SURGERY**

9:15 p.m., Vernon Room, Haddon Hall

Chairman: James Christensen

1. The Origin and Behavior of the Electrical Control Activity of the Antrum. E. E. DANIEL, Alberta, Canada.
2. Gastric Emptying: the Relationship between Antral Control Activity and the Antral Pump. A. R. COOKE, Iowa City, Iowa.
3. The Antral Pacemaking Potential and Postoperative Gastric Retention. K. A. KELLY, Rochester, Minn.

HEMATOLOGY II

7:30 p.m., Windsor Room, Haddon Hall

Chairman: George M. Bernier

1. Red Cell Glutathione Peroxidase Deficiency (GSH-Px) Secondary to Iron Deficiency. R. RODVIEN,* A. GILLUM,* and L. R. WEINTRAUB, Boston, Mass.

2. Conformational Requirements of Hemoglobin in Sickling: Study of Mixed Ligand Hybrids. ROBERT M. BOOKCHIN and RONALD L. NAGEL, Bronx, N. Y.
3. Replication and Erythroblastic Differentiation of Hemopoietic Stem Cells. R. L. DEGOWIN, J. C. HOAK,** and S. H. MILLER,* Iowa City, Iowa.
4. Molecular Changes in Factor V Associated with Activation by Thrombin. C. L. KANDALL,* R. ROSENBERG,* and R. W. COLMAN, Boston, Mass.
5. Enhancement of Blood Coagulation by Soluble Fibrin Polymers. MOGENS SANDBJERG HANSEN,* NILS U. BANG,** RICHARD D. BARTON,* and LAWRENCE E. MATTLER,* Indianapolis, Ind.
6. Identification of Mononuclear Phagocyte Defects by a New Leukocyte Bactericidal Assay. MARTIN J. CLINE, San Francisco, Calif.
7. B_{12} -Dependence on Cell Uptake of Serum Folate: an Explanation for High Serum Folate and Cell Folate Depletion in B_{12} Deficiency. V. HERBERT,** G. TISMAN, L. T. GO,* and L. BRENNER,* New York.

IMMUNOLOGY AND RHEUMATOLOGY

7:30 p.m., Rutland Room, Haddon Hall

Chairman: Lawrence M. Lichtenstein

1. Antigenic Heterogeneity of Human Lymphoid Cells. RICHARD W. SMITH,* WILLIAM D. TERRY, and KENNETH W. SELL,* Bethesda, Md.
2. Antilymphocyte Sera (ALS): Correlations of In Vitro Tests with In Vivo Efficacy. A. LoBUGLIO, D. MILLER,* A. MILLER,* G. J. CERILLI,* and S. P. BALCERZAK,** Columbus, Ohio.
3. Lymphocyte Surface Immunoglobulins in Lymphoproliferative Diseases. W. F. PIJSESENS,* P. H. SCHUR, W. C. MOLONEY,** and W. H. CHURCHILL, Boston, Mass.
4. Cell Mediated Immunity in Experimental Hypersensitivity Pneumonitis. T. KAWAI,* J. SALVAGGIO, and J. HARRIS, New Orleans, La.
5. Specificity of Antibodies to Extractable Nuclear Antigens (ENA) in Mixed Connective Tissue Disease (MCTD) and Systemic Lupus Erythematosus (SLE). G. C. SHARP, W. S. IRVIN, P. HENRY, R. WARREN,* J. D. NORTHWAY, and E. M. TAN, La Jolla, Calif.
6. A Neutrophil Immobilizing Factor Derived from Human Leukocytes. EDWARD J. GOETZL* and K. FRANK AUSTEN,** Boston, Mass.
7. Epsilon Aminocaproic Acid (EACA) Therapy of Angio-neurotic Edema (HANE). M. M. FRANK, J. S. SERGENT,* M. A. KANE,* and D. W. ALLING,* Bethesda, Md.

METABOLISM II

7:30 p.m., Pennsylvania Room III, Haddon Hall

Chairman: Louis V. Avioli

1. Differential Development of Adenyl Cyclase and Its Hormone Receptors in the Fetal Rat Heart. C. M. CLARK, JR., B. E. BEATTY,* and D. O. ALLEN,* Indianapolis, Ind.
2. Independence of Insulin-Receptor Interaction and Insulin Degradation. R. KAHN,* P. FREYCHET,* J. ROTH, and D. M. NEVILLE, JR.,* Bethesda, Md.
3. Hypoglycemia and Gluconeogenic (GNG) Substrate Limitation in Hypopituitarism. MOREY HAYMOND,* IRENE KARL,* and ANTHONY PAGLIARA, St. Louis, Mo.
4. Regulation of Cyclic Nucleotide (CN) Levels in Canine Plasma. L. BLONDE,* R. E. WEHMANN,* and A. L. STEINER,* Albany, N. Y. (introduced by E. Furth**).
5. Characteristics of the Mutant Hypoxanthineguanine Phosphoribosyltransferase (HGPRT) in Erythrocytes from Patients with the Lesch-Nyhan Syndrome. WILLIAM J. ARNOLD, JEAN C. MEADE,* and WILLIAM N. KELLEY, Durham, N. C.
6. 25-Hydroxylation of Vitamin D in Sporadic (SVDRR) and Familial Hypophosphatemic Vitamin D Resistant Rickets (FHVDRR). J. HADDAD, JR., T. HAHN, K. CHYU,* and T. STAMP,* St. Louis, Mo. and London, England.
7. Alanine-Glucagon Relationship in Humans. W. A. MÜLLER,* T. T. AOKI,* and G. F. CAHILL, JR.,** Boston, Mass.

PULMONARY II

7:30 p.m., Music Room, Chalfonte

Chairman: Jon B. Glazier

1. Protein Transport and Secretion by Lung: Relation to Surfactant. K. DICKIE, V. MARSHALL,* G. MASSARO,* and D. MASSARO, Washington, D. C.
2. A New Hypothesis for the Mechanism of Action of α -1-Antitrypsin and Supporting Experiments. A. COHEN, San Francisco, Calif.
3. Prolonged Survival of Rats Breathing 100% Oxygen at Ambient Pressure. RICHARD E. BRASHEAR and HARI M. SHARMA,* Indianapolis, Ind.

4. Regional Ventilation/Perfusion Profiles of the Pink Puffer and Blue Bloater: a Pathophysiologic Basis for Their Divergent Pattern of Breathing. T. G. KEENS,* K. M. MOSER,** and G. M. TISI, San Diego, Calif.
5. Effect of Morphine on Ventilatory Drive in Man. J. V. WEIL, I. E. SODAL,* R. E. McCULLOUGH,* and J. S. KLINE,* Denver, Colo.
6. Stimulation of Bactericidal Activity of Alveolar Macrophages with Surfactant. M. LAFORCE, W. KELLY,* and G. HUBER, Boston, Mass.
7. Effect of NO_x on Redox State of Alveolar Macrophages. J. R. SIMONS,* S. MINTZ,* G. FREEMAN,** J. THEODORE, and E. D. ROBIN,** Stanford, Calif. and Menlo Park, Calif.

RENAL AND ELECTROLYTES III

7:30 p.m., West Room, Haddon Hall

Chairman: Rex L. Jamison

1. On the Nature of the Peritubular Transcapillary Oncotic Reabsorptive Force. R. MACINNES,* T. DAUGHARTY, and B. M. BRENNER, San Francisco, Calif.
2. Large Decrement in Gallbladder Transport as a Result of Small Serosal Hydrostatic Pressure Gradients. R. I. KEIMOWITZ* and T. L. STANTON,* Washington, D. C. (introduced by M. B. Burg).
3. Parathyroid Hormone (PTH) Binding to Rat Renal Cortex (RC) and Its Inhibition by Prostaglandin E₁ (PGE₁). NAMA BECK, A. E. EICHENHOLZ,** S. REED,* and B. DAVIS, Pittsburgh, Pa.
4. Abolition of Lithium-Induced ADH Unresponsiveness in Toad Urinary Bladders. IRWIN SINGER and E. A. FRANKO,* Philadelphia, Pa.
5. Ouabain-Uninhibited Na Transport in Human RBC's: Evidence against a Second Na Pump. MICHAEL J. DUNN, Burlington, Vt.
6. Single Nephron Plasma Flow (NPF) in Superficial and Juxtaglomerular Cortex (JMC) in the Hydropenic Rat. L. J. BARRATT,* J. D. WALLIN,* F. C. RECTOR, JR., and D. W. SELDIN,** Dallas, Tex.
7. The Quantitative Estimation of Juxtaglomerular (JM) and Superficial (S) Nephron Filtration (SNGFR) in the Dog: Control and Saline Loading. F. J. BRUNS,* A. L. RILEY,* E. A. ALEXANDER, and N. G. LEVINSKY,** Boston, Mass.

The Association of American Physicians

85 TH ANNUAL MEETING

TUESDAY, MAY 2

MORNING

9:00 a.m., Pennsylvania Room, Haddon Hall

GENERAL BUSINESS SESSION

THE PRESIDENT'S ADDRESS

SCIENTIFIC SESSION

Chairman: Eugene A. Stead, Jr.

AFTERNOON

2:00 p.m., Pennsylvania Room, Haddon Hall

PRESENTATION OF
THE GEORGE M. KOBER MEDAL TO
CECIL J. WATSON
BY RICHARD V. EBERT

SCIENTIFIC SESSION

Chairman: Robert H. Ebert

(*The presentation of each paper will be limited to 12 min.*)

1. Cholestryl Ester Storage Disease (CESD): a Most Unusual Manifestation of Deficiency of Two Lysosomal Enzyme Activities. D. S. FREDRICKSON, H. R. SLOAN,* and V. J. FERRANS,* Bethesda, Md.
2. Genetics of Hyperlipidemia in Coronary Heart Disease. J. L. GOLDSTEIN,* W. R. HAZZARD,* H. G. SCHROTT,* E. L. BIERMAN, and A. G. MOTULSKY, Seattle, Wash.
3. Pediatric Familial Type IV Hyperlipoproteinemia. C. J. GLUECK,* R. FALLATT,* S. FORD,* and R. TSANG,* Cincinnati, Ohio (introduced by Harvey C. Knowles, Jr.).
4. Allelism, Non-Allelism, and Genetic Compounds among Mucopolysaccharidoses. V. A. MCKUSICK, R. RODNEY HOWELL,* IRENE E. HUSSELS,* ELIZABETH F. NEUFELD,* and ROGER E. STEVENSON,* Baltimore and Bethesda, Md.
5. Nature of Defect Responsible for Familial Vitamin D-Resistant Rickets (VDRR) Based on Parathormone (PTH) Assay. B. S. ROOF,* C. F. PIEL,* and G. S. GORDAN, San Francisco, Calif.
6. Juvenile Rheumatoid Arthritis (JRA) in the Adult Presenting as Fever of Unknown Origin (FUO). J. S. BUJAK,* R. G. APTEKAR,* J. L. DECKER,* and SHELDON M. WOLFF, Bethesda, Md.
7. Surface Immunoglobulins on Circulating Lymphocytes in Mouse and Human Plasmacytoma. P. HELLER, V. YAKULIS,* N. BHOPALAM,* N. COSTEA,* and R. D. NATHAN,* Chicago, Ill.
8. Pathogenesis and Immunology of Trachoma. J. T. GRAYSTON, J. GALE,* L. J. YEH,* and C. Y. YANG,* Seattle, Wash.
9. The Common Antigen(s) of Streptococcal M Protein Vaccines Causing Hyperimmune Reactions in Man. E. H. BEACHEY* and G. H. STOLLERMAN, Memphis, Tenn.
10. Penicillin Prophylaxis of Experimental *Streptococcus viridans* Endocarditis. D. DURACK,* R. PETERSDORF, and PAUL BEESON, Oxford, England.
11. In Vivo Angiographic Pathoanatomy of the Acute Syndromes of Coronary Heart Disease. M. V. HERMAN* and R. GORLIN, Boston, Mass.
12. Changes in Native Coronary Circulation and Segmental Ventricular Contractility after Saphenous Vein Coronary Bypass Graft Surgery. L. GRIFFITH,* S. ACHUFF,* C. R. CONTI,* J. O. HUMPHRIES,* V. GOTTL,* and R. ROSS, Baltimore, Md.
13. Objective Tests of Cardiac Contractility before and after Three Operative Procedures Designed to Improve the Coronary Circulation. I. STARR and H. MACVAUGH III,* Philadelphia, Pa.
14. Alterations in Regional Hemodynamics in Experimental Heart Failure (HF) in Conscious Dogs. C. B. HIGGINS,* S. F. VATNER,* R. W. MILLARD,* D. FRANKLIN,* and E. BRAUNWALD, La Jolla, Calif.
15. A Serotonergic Mechanism for the Control of Insulin Secretion. J. M. FELDMAN* and H. E. LEBOVITZ,* Durham, N. C. (introduced by R. W. Rundles).
16. Importance of T₃ (Triiodothyronine) Secretion in Altered States of Thyroid Function in the Rat: Cold Exposure, Subtotal Thyroidectomy, and Hypophysectomy. I. F. NEJAD,* J. A. BOLLINGER,* M. A. MIRNICK,* and S. REICHLIN, Farmington, Conn.
17. In Vitro Demonstration of Iodide-Trapping Defect but Normal Thyrotropin (TSH) Responsiveness in Benign and Malignant "Cold" Thyroid Nodules. P. R. LARSEN,* F. DERUBERTIS,* K. YAMASHITA,* A. DEKKER,* and J. B. FIELD, Pittsburgh, Pa.
18. Dynamic Aspects of Metabolic Acid-Base Disturbance: Phenformin Lactic Acidosis with Alkaline Overshoot. THE MEDICAL HOUSE STAFF OF STANFORD UNIVERSITY MEDICAL CENTER* and E. D. ROBIN, Stanford, Calif.

WEDNESDAY, MAY 3

9:00 a.m., Windsor Room, Haddon Hall

ELECTION OF OFFICERS AND NEW MEMBERS

SCIENTIFIC SESSION

Chairman: Eugene A. Stead, Jr.

THE DISTINGUISHED LECTURE

HUMAN GENETIC DISEASE: PAST, PRESENT, FUTURE

By

JAMES B. WYNGAARDEN

19. Utilization of the Platelet Release Reaction to Measure ITP Factor and Platelet Antibodies. R. J. HIRSCHMAN* and N. R. SHULMAN, Bethesda, Md.

20. Erythrocyte Catabolism by Macrophages In Vitro: Dissociation of Phagocytosis and Heme Oxygenase Induction. D. GEMSA,* H. H. FUDENBERG, and RUDI SCHMID, San Francisco, Calif.
21. Role of Structural Imbalance in Pathogenesis of Renal Dysfunction in the Hypothyroid Rat. S. E. BRADLEY, G. P. BRADLEY,* and F. STEPHAN,* Strasbourg, France and New York.
22. The Syndrome of Hypertension, Hyperreninemia, and Secondary Aldosteronism Associated with Renal Juxtaglomerular Cell Tumors (RJCT). J. W. CONN, E. L. COHEN,* W. J. McDONALD,* W. H. BLOUGH, JR.,* C. P. LUCAS,* G. H. MAYOR,* J. J. BOOKSTEIN,* and J. LAPIDES,* Ann Arbor, Mich.
23. Leaky Pulmonary Vessels. G. G. PIETRA,* J. P. SZIDON,* and A. P. FISHMAN, Philadelphia, Pa.
24. Effect of Erythrocyte 2,3-DPG and Hemoglobin Concentration on O₂ Delivery and Work Performance. R. WOODSON,* B. WRANNE,* and J. DETTER,* Seattle, Wash. (introduced by C. Finch).
25. Medical Treatment of Retained Gallstones. W. H. ADMIRAND* and L. W. WAY,* San Francisco, Calif. (introduced by M. H. Slesinger).

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