CONTENTS

NUMBER 1, JANUARY 1967


Distribution of the Human Rho(D) Antigen in the Red Cells of Non-Human Primates S. P. Masoureditis, Mary Edith Dupuy and Margaret Elliot .......................................................... 8

Studies on Human Peripheral Blood Lymphocytes in Vitro: III. Fine Structural Features of Lymphocyte Transformation by Pkeweed Mitogen. Steven D. Douglas, Peter F. Hoffman, Jan Borjeson and Lawrence N. Chessin ......................................................... 17

Immunologic Relationship between Blood Group Substances and a Fucose-Containing Glycolipid of Human Adenocarcinoma. Sen-Itiroh Hakomori, Jerzy Koscielak, Kurt J. Bloch and Roger W. Jeanloz ......................................................... 31

Demonstration of Tissue-Specific Soluble Antigens in Human Skin by Immunodiffusion. Toshiyuki Aoki and Tokuji Fujinami .......................................................... 39

The Pathogenesis of Theiler’s GD VII Encephalomyelitis Virus Infection in Mice as Studied by Immunofluorescent Technique and Infectivity Titrations. Chien Liu, Julius Collins and Eleanor Sharp .......................................................... 46

The in Vitro Absorption of Anti-Brain Radioantibodies with Brain Sediments: Some Unusual Properties and a Quantitative Method. Eugene D. Day and Sylvester Lassiter .......................................................... 56


Reversal of Post-Thymectomy Wasting Disease in Mice by Multiple Thymus Grafts. Osias Stutman, Edmond J. Yunis, Carlos Martinez and Robert A. Good .......................................................... 79

Quantitative Hemadsorption, a New Assay Technique. II. Assay of Neutralizing Antibodies to Hemadsorbing Viruses. N. B. Finter .......................................................... 88

Bacteriophage Neutralizing Activity of Fragments Derived from Rabbit Immunoglobulin by Papain Digestion. G. W. Stemke and E. S. Lennox .......................................................... 94

Agglutination of Particulate Antigens in Agar Gel. Felix Milgrom and Ulana Loza .......................................................... 102

Runt Diseases Induced by Non-Living Bacterial Antigens. Richard D. Ekstedt and Lawrence L. Hayes .......................................................... 110

Complement Associated Peptidase Activity of Guinea Pig Serum. I. Role of Complement Components. Neil R. Cooper and Elmer L. Becker .......................................................... 119

Complement Associated Peptidase Activity of Guinea Pig Serum. II. Role of a Low Molecular Weight Enhancing Factor. Neil R. Cooper .......................................................... 132

Rabbit γA- and γM-Immunoglobulins with Allotypic Specificities Controlled by the a Locus. Edward A. Lichter .......................................................... 139

Competition between, and Effectiveness of, IgG and IgM Antibodies in Indirect Fluorescent Antibody and Other Tests. Irin R. Cohen, Leslie C. Norins and Alfredo J. Julian .......................................................... 143

Some Observations on the ABO Antigen Sites of the Erythrocyte Membranes of Adults and Newborn Infants. Sol Haberman, Pat Blanton and James Martin .......................................................... 150

Streptococcal Related Glomerulonephritis. II. Glomerulonephritis in Rhesus Monkeys Immunologically Induced Both Actively and Passively with a Soluble Fraction from Human Glomeruli. A. S. Markowitz, Raymond Claseen, Bernard D. Nidus and Herman Ainsis .......................................................... 161


Studies on Immunologic Unresponsiveness during Secondary Disease. II. The Effect of Added Donor and Host Immunologically Competent Cells. John S. Thompson, Eric L. Simmons, Richard H. Moy and Margaret K. Crawford .......................................................... 179


ii

Downloaded from http://www.jimmunol.org/ by guest on October 28, 2017
Gross and Microscopic Skin Reactions to Killed Typhus Rickettsiae in Human Beings. Charles L. Wisseman, Jr., Yehia el Batawi, William H. Wood, Jr. and Antonio R. Noriega.......... 194

Notices....................................................................................... 210

Number 2, February 1967

Immuinochemical Studies on Delayed and Arthus-Type Hypersensitivity Reactions. I. The Relationship between Antigenic Determinant Size and Antibody Combining Site Size. Stuart F. Schlossman and Herbert Levine. 211

Candida Precipitins. William H. Chew and Thomas L. Theus. 220

Studies on the Radiosensitive Phase of the Primary Antibody Response in Rabbits. I. The Role of the Macrophage. James F. Pribnow and Myron S. Silverman. 225

Suppression by Antihistamine of Passive Cutaneous Anaphylaxis Produced with Anaphylactic Antibody in the Guinea Pig. Henry Z. Movat, Nancy L. Di Lorenzo, Norton S. Taichman, Sam Berger and Howard Stein. 230

Synthetic Polypeptide Metabolism. III. Degradation and Organ Localization of Isomeric Synthetic Polypeptide Antigens. Charles B. Carpenter, Thomas J. Gill, III and L. T. Mann, Jr. 236


An Antigen Common to Mouse Cells and Salmonella typhimurium. William Boyle. 256


Application of the Paired Label Radioantibody Technique to Tissue Sections and Cell Smears. Nobuyuki Tanigaki, Yasuo Yagi and David Pressman. 274

Antibodies against Human Leukemia Cell Lines. Nobuyuki Tanigaki, Yasuo Yagi, George E. Moore and David Pressman. 281

Interaction of Penicillin and Erythrocytes. Alan S. Josephson and Allan P. Kaplan. 283

Papain Fragmentation of the Subunits of Human Macroglobulin. Kaoru Onoue, Tadamitsu Kishimoto and Yuichi Yamamura. 303

Differentiation of Arboviruses by Immunoelectrophoresis. Raoul R. Caudrado and Jordi Casals. 314

Estradiol-Induced Wasting Syndrome in Neonatal Mice. Richard W. Reilly, John S. Thompson, Robert K. Bielski and Charles D. Severson. 321

The Effect of Estrogenic Hormones on Immune Responses in Normal and Irradiated Mice. John S. Thompson, Margaret K. Crawford, Richard W. Reilly and Charles D. Severson. 331


Detection of Immune Response against Synthetic Polymers of Amino Acids Employing the Plaque-Forming Cell System. I. Reaction with Sheep Erythrocytes Coated with Polymer. Patricia Walsh, Paul Maurer and Marianne Egan. 344

Effect of Anticoagulants on Delayed Hypersensitivity Reactions. Stanley Cohen, Baruj Benacerraf, Robert T. McCluskey and Zoltan Ovary. 351

Thermostable Brain-Specific Autoantigen. Felix Milgrom, Z. Maide Tuggae, Walter Campbell and Ernest Witebsky. 359


Antibody Response of Rhesus Monkeys to a Density Gradient Purified Murine Leukemia Virus (Rauscher). Louis R. Sibel, Mary Alexander Fink, Carol L. McCune and Carolyn A. Cowles. 368

Physicochemical and Immunologic Properties of Eluates Containing I-125 Anti-Rh0(D). Susie W. Fong and S. P. Masouredis. 374

Similarities between Rabbit Antibodies Produced following Ingestion of Bovine Serum Albumin and following Parenteral Immunization. Richard M. Rothberg, Sumner C. Kraft and Richard S. Farr. 386

Studies Concerning the Importance of Mononuclear Cells in the Development of Experimental Hepatitis. F. Scheiffarth, H. Warnatz and K. Mayer. 396
## CONTENTS

**NUMBER 3, MARCH 1967**

- Autoradiographic Experiments Concerning the Importance of Mononuclear Cells in Experimental Hepatitis. H. Warnatz, F. Scheiffarth, F. Wolf and H. J. Schmidt ................................................. 402
- Announcement. A Summer Course in Immunology ............................................. 406
- Suppression of the Primary and Secondary Immune Response of the Mouse by Phytohemagglutinin. Federico Spreafico and Edwin M. Lerner, II ........................................ 407
- Immunologic Unresponsiveness to Allergic Thyroiditis in Guinea Pigs. S. B. Salvin and H.-L. Liauw ................................. 432
- Termination of Acquired Tolerance by Administration of Small Lymphocytes. A. Michael Denman, Thomas L. Vischer and Peter Stastny ............................................ 442
- Role of the Thymus in Tolerance. V. Suppressive Effect of Treatment with Nonaggregated and Aggregated Bovine γ-Globulin on Specific Immune Responses in Normal Adult Rats. Igal Gery and Byron W. Waksman .............................................................. 446
- The Binding of Naturally Occurring Anti-B Isohemagglutinins to the B Antigens of Human Erythrocytes. Mary B. Gibbs and Hermilio A. Toro .............................................................. 461
- The Alteration of Endotoxin by Postheparin Plasma and Its Purified Fractions. II. Relationship of the Endotoxin Detoxifying Activity of Euglobulin from Postheparin Plasma to Lipoprotein Lipase. Duane R. Schultz and Elmer L. Becker .............................................................. 482
- Allergen-Binding Activity of γE, γG and γA Antibodies in Sera from Atopic Patients: In Vitro Measurements of Reaginic Antibody. Kimishige Ishizaka, Teruko Ishizaka and Margaret M. Hornbrook ............................................................................ 490
- An Effect upon the Regulation of Gene Expression: Allotype Suppression at the α Locus in Heterozygous Offspring of Immunized Rabbits. Rose Mage, Gwendolyn O. Young and Sheldon Dray .............................................................. 502
- Antibody Responses in Experimental Infections with *Listeria monocytogenes*. A. S. Armstrong and C. P. Sword .......................................................................... 510
- The Nature of C-Reactive Protein in Acute Phase Serum: Evidence for an Equilibrium Form Containing a Mucopolsaccharide of Serum. Y. Hokama, Monroe K. Coleman and Richard F. Riley .............................................................. 521
- The Immunologic Properties and Identity of Mucopolsaccharides Associated with C-Reactive Protein in Acute Phase Human Serum. Y. Hokama, Monroe K. Coleman and Richard F. Riley .............................................................. 529
- Synthesis of Human Immunoglobulins in Germinal Centers of Lymphoid Organs. Pierre Burtin and Denise Buffe .......................................................................... 536
- Immunochemical Study of Influenza Virus and Associated Host Tissue Components. Calderon Howe, Lucille T. Lee, Arild Harboe and Gunnar Haukenes.................................................. 543
- Heterogeneity and Sequence of Appearance of Rabbit Antibodies to Hog Intrinsic Factor. I. Michael Samloff and Eugene V. Barnett .............................................................. 558
- Antigenic Analysis of an N-Terminal Fragment of a Type K Bence Jones Protein. Margaret Tan and Wallace Epstein .............................................................. 568
- Anti-*Pasteurella pestis* Factor from Mice and Guinea Pigs. II. Some Chemical and Physical Characteristics. Daniel M. Eisler, Beverly Hill, Eleanor K. von Metz, Wei-Jen Chang and Robert J. Heckly .............................................................. 576
- Enhanced Immunologic Sensitization of Mice by the Simultaneous Injection of Antigen and Specific Antiserum. III. The Role of Antigen in Controlling the Immune Response Elicited with Immune Complexes. Geronimo Terres and Sherie Leaver Morrison .............................................................. 584
- Nonspecific Agglutination of Tanned Sheep Erythrocytes by Heat-Inactivated Mouse Serum Collected from Diluted Blood. J. Munoz .......................................................................... 593
CONTENTS

Transplantation Immunity and Delayed Cutaneous Hypersensitivity Reactions in Dogs. J. Wayne Streilein and Clyde F. Barker .............................................................. 601

Nephrotoxic Serum Nephritis in Complement Intact and Deficient Mice. Emil R. Unanue, Michael R. Mardiney, Jr. and Frank J. Dixon ............................................. 609

Interaction of Rabbit Anti-Human H Chain Sera with Denatured Human γ-Globulin and Its Subunits. Shun-Ichi Hirose and Abraham G. Osler ........................................ 618

Interaction of Rheumatoid Factors with Urea-Denatured Human γ-Globulin and Its Subunits. Shun-Ichi Hirose and Abraham G. Osler ................................................... 628

Immediate Hypersensitivity Reactions Induced in Mice by Active and Passive Means. J. Munoz. 638


In Viva Behavior of Homologous and Heterologous Thyroglobulin and Induction of Immunologic Unresponsiveness to Heterologous Thyroglobulin. Robert M. Nakamura and William O. Weigle ........................................................... 653

Complement-Fixing Antibodies in Sera of Sheep Affected with Visna and Mædi. Margaret Gudnadóttir and Karólina Kristinsdóttir ............................................. 663

Erratum ..................................................................................... 667

Specificity of the Primary and Secondary Antibody Responses to Myxoviruses. Reid Russell Heffner, Jr. and Ann Schluederberg .......................................................... 668

Heterotypic Serologic Responses after Yellow Fever Vaccination; Detection of Persons with Past St. Louis Encephalitis or Dengue. William L. Pond, N. Joel Ehrenkranz, Joseph X. Danauskas and Mary Jo Carter ........................................................... 673


The Growth of Rubella Virus in Small Laboratory Animals. J. S. Oxford ........................................................... 697


Charcoal as a Carrier in a Rapid Slide Agglutination Test for the Detection of Antibodies to Adenoviruses. Morton Klein, Adamadia DeForest and Jay Satz .... 707

Electrophoretic Analysis of Polypeptide Chains Isolated from Antibodies in the Serum of Immunized Rabbits. Edward J. Miller, C. Kirk Osterland, Joseph M. Davie and Richard M. Krause ................................................................. 710

Notice ........................................................................................ 715

A Mechanism of Bacterial Interference in Vitro. John C. Ribble ........................................................... 716

Neutralizing and Hemagglutination-Inhibiting Activity of Nasal Secretions following Experimental Human Infection with A2 Influenza Virus. Robert H. Alford, Roger D. Rossen, William T. Butler and Julius A. Kasel ........................................................... 724


Formation and Isolation of Rabbit Antibodies to a Synthetic Antigen of Low Molecular Weight. Felix Borek, Yehudit Stupp and Michael Sela ........................................................... 739

Immunoglobulins of the Rhesus Monkey (Macaca mulatta). I. Antiserum to Bovine Serum Albumin and the Dinitrophenyl Antigenic Determinant. James D. Lakin, Roy Patterson and Jacob J. Pruzansky ........................................................... 745

Quantitative Hemagglutination Studies on Several Anti-A Lectins. Aparna Chatteraj ........................................................... 757


The Association of Increased Spontaneous Lymphocyte Transformation in Vitro with Clinical Manifestations of Drug Hypersensitivity. Fred A. Gill ........................................................... 778
Studies on Rabbit Lymphocytes in Vitro. VII. The Induction of Blast Transformation with the F(ab')2 and Fab Fragments of Sheep Antibody to Rabbit IgG. Stewart Sell ........................................ 786
The Use of the Preparative Ultracentrifuge to Detect Primary Interactions between 111Labeled Antigen and Antibody. Richard M. Rothberg and Richard S. Farr ..................... 792
Antigenic Analysis of Human Cells and Tissues: Differential Susceptibility of Antigens to Physical or Chemical Treatment. Shih-Yen Chiu, Patricia J. Baker and K. Gerhard Brand ........... 811
Duck Immunoglobulins. I. Structural Studies on a 5.7S and 7.8S γ-Globulin. Howard M. Grey ................ 820
Duck Immunoglobulins. II. Biologic and Immunochemical Studies. Howard M. Grey .............. 827
The X-Y-Z Scheme of Immunocyte Maturation. II. The Effect of Antigen on Spontaneous Escape from Immune Paralysis. Stanley J. Dowden and Eli E. Sercarz .................................. 836
The X-Y-Z Scheme of Immunocyte Maturation. III. Early IgM Memory and the Nature of the Memory Cell. Eli E. Sercarz and Vera S. Byers ........................................ 844
Uptake by Mononuclear Phagocytes of Protein-Coated Bentonite Particles Stabilized with a Carbodiimide. Robert R. Carpenter and Petronilo B. Barsales ........................................ 854
An Alteration of Secreted Immunoglobulin in Serum. Eckeart Kölese ............................. 860
Changes in Subcellular and Circulating Antibody Levels during the Hemolysin Response in Rabbits. Susan E. Chapman and Dieter H. Susedorf ........................................... 874
Subgroups of L Type Bence-Jones Proteins. A. Ruffilli and C. Baglioni .................................. 886
Dissociation of Immune Responses by the Induction of Partial Unresponsiveness. Relationship of PCA and Complement-Fixing Antibody Formation to the Suppression of Delayed Hypersensitivity. Yves Borel, Marthe Fauconnet and Peter Miescher ........... 895
Histocompatibility and Tumor Virus Antigens Identified on Cells Grown in Tissue Culture by Means of the Mixed Hemadsorption Reaction. Rolf F. Barth, J. Åke Esmark and Astrid Fagraeus ............................... 907
Hyperreactivity to Ascaris Antigens. I. Skin-Sensitizing Activity of Serum Fractions from Guinea Pigs Sensitized to Crude Extracts. Gill Strejan and Dan H. Campbell .............. 911
Protein Conjugates of Polysaccharide from Cryptococcus neoformans. Mayer B. Goren and Gardner M. Middlebrook .................................................... 923
Canine Immunoglobulins. II. Antibody Activities in Six Immunoglobulin Classes. John S. Johnson, John H. Vaughan and Scott N. Swisher ........................................ 951
Further Studies on Effect of Endotoxin on Antibody Response of Rabbit to Common Antigen of Enterobacteriaceae. H. Y. Whang and E. Neter ........................................ 958
Precipitation and Neutralization of Bacteriophage f2 by Rabbit Antibodies. David T. Rowlands, Jr. ........................................................................ 966
Nephrotoxic Serum Nephritis in C6-Deficient Rabbits. I. Study of the Second Phase of the Disease. Klaus Rother, Ursula Rother, Pierre Vassalli and Robert T. McCluskey ........ 974
Antibody Content of Single Antibody-Forming Cells. Kengo Horibata and Jonathan W. Uhr ... 982
The Presence of Antibody to Chikungunya and Other Serologically Related Viruses in the Sera of Sub-Human Primate Imports to the United States. V. R. Harrison, J. D. Marshall and N. B. Guilloud ........................................................ 989
Immune Hemolysis: An Inter-Species Study. William D. Linscott ....................................... 999
Preparative Purification of Lung-Localizing Rabbit Anti-Rat Lung Antibodies in Vitro. Osamu Tsuzuku, Yasuo Yagi and David Pressman ..................................................... 1004


Suppression of the Tuberculin Reaction by High Concentrations of Tuberculin and the Relationship of this Phenomenon to the Potency Assay of Tuberculin. Harold Baer and Robert W. Kolb.................................................. 1015

The Immune Response to Human γG-Immunoglobulin in Rabbits Unresponsive to Fc Fragment and H Chain Protein. Hans L. Spiegelberg and William O. Weigle ............................................................. 1020


Changes in the Concentrations of the γc-Globulin and the γG-Globulin of Bovine Cerebrospinal Fluid with Maturation. Catherine F. C. MacPherson ..................................... 1039

Immunity to the 6C3HED Ascites Tumor following Treatment of Tumor-Bearing Mice with Escherichia coli L-Asparaginase. Morton D. Prager, Joseph Roberts and Nicholas Bachynsky .................................................. 1045

Isolation of Rat Lung Antigens Capable of Neutralizing Localizing Activity of Anti-Lung Antibodies. Osamu Tsuzuku, Yasuo Yagi and David Pressman ........................................ 1053

Antibody Responses of Rhesus (Macaca mulatta) Monkeys Experimentally Infected with Coxsackieviruses of Group B and Group A, Type 9. II. Heterotypic Antibody Responses to Echoviruses, Polioviruses and Reovirus Type 1. Nathalie J. Schmidt, Juanita Dennis and Edwin H. Lennette .................................................. 1060

Immunochemical Properties of Fc Fragment of Rabbit γG-Globulin. Kenneth Amiraian, Lillian Duchna and James Purcell ................................................................. 1067

Antibody and Gland Studies in Cortisone and ACTH-Injected Birds. Bruce Glick ................................................................. 1076

Response and Specificity of Anti-Shigella Rabbit Antibody. T. Tsuchiya, Y. Fukazawa, T. Shinoda and T. Okoshi ................................................................. 1085


NUMBER 6, JUNE 1967

The Behavior of Autologous Thyroglobulin in the Circulation of Rabbits Immunized with Either Heterologous or Altered Homologous Thyroglobulin. William O. Weigle and Gloria J. High... 1105

Repeated Infections with Respiratory Syncytial Virus. Marc Beem ................................................................. 1115

Antibodies against Staphylococcal Teichoic Acids and Type-Specific Antigens in Man. Harry Daugherty, R. Russell Martin and Arthur White ................................................................. 1123

Neutralization of Different Murine Interferons by Antibody. M. Boxaca and K. Paucher ................................................................. 1130

The Effect of Kaolin on Immunoglobulins: An Improved Technique to Remove the Nonspecific Serum Inhibitor of Reovirus Hemagglutination. John J. Mann, Roger D. Rossen, James R. Lehrich and Julius A. Kasel................................................................................................................................. 1136

Skin Sensitizing Antibodies: A Comparative Study of Canine and Human PK and PCA Antibodies and a Canine Myeloma Protein. John H. Rockey and Robert M. Schwartzman ...... 1143

Systemic Tuberculin Sensitivity in Mice. I. Factors Contributing to Active Tuberculin Shock. Shou-Hwa Han and Russell S. Weiser................................................................. 1152

Systemic Tuberculin Sensitivity in Mice. II. Hypothermia as an Indicator of Tuberculin Shock in Actively and Passively Sensitized Mice. Shou-Hwa Han and Russell S. Weiser ................................................................. 1158

Systemic Tuberculin Sensitivity in Mice. III. The Effects of Adrenalectomy and Treatment with Antianaphylactic Agents. Shou-Hwa Han and Russell S. Weiser................................................................. 1163

Characteristics of Direct and Indirect Complement-Fixing Antibodies Obtained from Turkeys Infected with Ornithosis Agent. Gordon R. Dreesman, Albert A. Benedict and R. W. Moore................................................................. 1176


Rabbit Antibodies Induced by Calf Thymus Histone-Serum Albumin Complexes. Ann. L. Sandberg, Maurice Liss and B. David Stollar................................................................. 1182
Structural Characteristics of Hemolytic Antibodies as Determined by the Effects of Ionizing Radiation. Wendell F. Rosse, Herbert J. Rapp and Tibor Borsos ........................................ 1190
Factors Affecting the Degree of Nonspecific Staining Given by Fluorescein Isothiocyanate Labeled Globulins. G. Ann Herbert, Bertie Pittman and William B. Cherry ........................................ 1204
Experimental Streptococcal Glomerulonephritis in Rats. Lois H. Lindberg, Kenneth L. Vosti and Sidney Raffel .......................................................................................... 1231
Antigenic and Immunogenic Studies on Purified Tetanus Toxoid. P. A. Nielsen, F. B. Ablondi, M. V. Querry, Cecilia Gussoni and M. S. Cooper .................................................. 1248
Characterization of Hamster Antibody Reacting with Papovavirus SV40 Tumor Antigen. Satvir S. Tevethia .......................................................... 1257
Duration of Immunity to Tuberculosis in Mice Vaccinated Intravenously with Oil-Treated Cell Walls of Mycobacterium bovis Strain BCG. R. L. Anacker, W. R. Barclay, W. Brehmer, C. L. Larson and E. Ribi .......................................................... 1265
The Effect of Antigen on the Rate of Guanosine-8-C14 Incorporation by Lymphocytes. Lewis W. Mayron and Peter Baram .............................................................................. 1274
A Tissue Hemadsorption Inhibition Neutralization Test for Rubella Antibody. Ray Murphy, George J. Scheff and Richard A. Morrissey ................................................. 1286
Antigenic Analysis of a Metazoan Parasite, Toxocara canis. II. Purification and Analysis of Two Antigenic Components. Edward L. Jeska .............................................. 1290
Infectivity Assay of Reoviruses: Comparison of Immunofluorescent Cell Count and Plaque Methods. Mary E. McClain, Rex S. Spendlove and Edwin H. Lennette .................................................. 1301
Adoptive Immunity to Intracellular Infection. J. K. Frenkel .................................................. 1309
The Incidence of HI Antibody to Influenza Virus A2/Singapore/1/57 in Individuals of Blood Groups A and O. C. W. Potter and G. C. Schild ............................................. 1319
Antibody Production by Mice Repopulated with Limited Numbers of Clones of Lymphoid Cell Precursors. J. Trentin, N. Wolf, V. Cheng, W. Fahlberg, D. Weiss and R. Bonhag .................................................. 1326