

INDEX

- Abdou, Nabil I., 1575
Abramoff, P., 1244
Acid, *see* specific acid
Adachi, Mitsuo, 256
Adenovirus, type 8, relation to canine hepatitis virus, 1036
Adherence, natural and antibody-induced, of phagocytic cells to autologous and heterologous thymocytes, 879
Adler, Frank L., 797
Adler, W. H., 984
Adler, William H., 1453
Agammaglobulinemia, chemical, use of immunoadsorption techniques in preparation of, 1292
Ahmed, Ansaruddin, 431
Aikin, Barbara S., 55
Albumin
 bovine plasma, activities of lymph node cells fractionated on, 1512
 bovine serum
 denatured, aggregates of, titration of antibody against determinants unique for, 797
 effect of antilymphocyte serum on, 108
 response to subsequent injection of, 1231
 pre-albumin activator of prekallikrein, 802
Allen, Jerry L., 193, 1001
Allen, Peter Z., 1253
Allen, Rae, 872
Allotypes
 A14 and A15, typing method for, 1046
 rabbit serum α_2 -macroglobulin, allotypes, 856
Allotypic determinants, and antibody specificity, independence of, 653
Ambrose, K. R., 524
Amino acids, synthetic polymers of, immune response against, 704, 710
Amsbaugh, Diana F., 1581
Anaphylaxis
 passive cutaneous, γ globulins and, 1296
 slow-reacting substance of
 capacity of IgE to mediate, 1087
 IgE-mediated release of, 1096
Anderson, N. G., 524
Anderson, Truman O., 146
Anthony, Bascom F., 379
Antibodies, *see also* Immunoglobulins and specific type of antibodies
 action on tissues, 755, 764
 active synthesis of, rosette formation in relation to, 1501
 activity, lymphocytophilic, using Cr-labeled thymocytes, 746
 affinity, and complement fixation, 215
against determinants unique for aggregated denatured bovine serum albumin, 797
anti-DNP
 fine specificity of, 306, 314
 of gray snapper, 262
anti-myelin, humoral, 248
appearance during viral respiratory infection, changes in IgA and IgG concentrations in nasal secretions prior to, 584
autoantibodies, *see* Autoantibodies
bacteriophage-neutralizing, induction by immunogenic RNA, 771, 779
calcium dependent and independent, 567
complexes, virus-anti-viral, 829
cross-reacting, secreted *in vitro*, 704, 710
formation, γ M, appendix and, 791
-forming cells
 conversion of spleen cells to, by RNA, 541
 IgA, after oral immunization, 1049
 immunoglobulin classes of, 154
 in secondary response, staircase rise in, 642
 primary immune response in, 1575
 stimulation and inhibition of, 442
fragments, and rabbit lymphocytes, 1400
hepatitis-associated "Australia," 604
homocytotropic, production of, 1264
-induced adherence, of phagocytic cells to autologous and heterologous thymocytes, 879
modified, teratogenic effectiveness of, 1175
nasal, to influenza neuraminidase, 620
natural, in shark, 1344
of different specificities, frequency of production by single spleen cells, 537
pepsin digestion of, 1294
-producing cells, relation to precursor cells in density fractions of lymph node cells, 1522
production, in x-irradiated hosts, 957
reagents, fluorescein-conjugated, method for preparing, 1151
response, *see* Response, antibody
secretory, specificity of, 1477
serum, to cellular antigens, 912
sites, variation in size of, 460
specificity
 correlation with complement-fixing behavior, 677
 independence of allotypic determinants and, 653
sulfanilic acid-specific, induction by RNA, 1244
to foot-and-mouth disease, detection and quantitation by radial immunodiffusion, 557
to streptococcal M-protein, 379
to *Vibrio cholerae*, 431

Antigens

- antibody complexes and complement, mechanisms of release of constituents from rabbit platelets by, 476, 490
- antigenic competition to thyroid, 1201
- antigenic differences between normal and neoplastic cells, 1052
- antigenic properties of chemically modified collagen, 1131
- antigenic relationships between avian immunoglobulins, 1215
- antigenic stimuli, mast cell responses to, 187
- antigenically stimulated and unstimulated leukocytes, heterogeneity of blastogenic factors produced by, 1162
- Ascaris*, hypersensitivity to, 1264
- binding and the immune response, 355
- brain, 512
- cellular, serum antibodies to, 912
- complement-fixing, dengue virus soluble, 1565
- elution of, by antigen-reactive cells, 259
- Epstein-Barr virus-induced, in lymphoid cells, relationship to viral envelop antigens, 793
- fetal and tumor immunity, 524
- hepatitis-associated "Australia," 604
- histocompatibility, 1031
 - in mixed cell culture, specific stimulation by, 984
- immunosuppressants in antigenic competition, 118
- in cultures of rabies virus, 291
- M and R, of type 43 and serologically related streptococci, 1124
- nervous tissue, species-restricted, 512
- of heart tissue, 416
- phage, in immunogenic RNA, 779
- protein, early primary response to, 355
- quantitation in experimental immune complex glomerulonephritis, 279
- reactive cells, elution of antigen by, 259
- release of virus inhibitor from tuberculin-sensitized peritoneal cells stimulated by, 1068
- response of guinea pig lymphocytes to, 204
- rheumatic fever, 1031
- rheumatoid factors reacting with, 928
- soluble
 - cytotoxic test for, 919
 - immune response to, 1416
 - of dengue virus, 838
- somatic (O), of *Proteus mirabilis*, heterogeneity of immune response to, 404
- stimulated lymphocytes, activation of normal rabbit macrophage monolayers by supernatants of, 1138
- surface, of fibroma virus, 1181
- SV40 S, and pregnant hamster serum, 521
- viral envelop, relationship of Epstein-Barr virus-induced membrane antigens in lymphoid cells to, 793
- Antiglobulin reagents, transformation of peripheral lymphocytes by, 1484
- Antilymphocyte serum
 - correlative assay for, 746
 - effect on humoral antibody response to *Salmonella typhi* "H" antigen and bovine serum albumin, 108
- reticuloendothelial system blockade produced by, 634
- Antinuclear factor, presence in hybrids of NZB and A/J mice, 1108
- Antisera
 - monospecific, to C1 esterase, preparation of, 162
 - tissue, use in production of congenital malformations, 1175
 - to thymocyte subcellular fractions, 1569
 - Arginine residues of basic brain protein, effect on encephalitogenic activity, 865
 - Ascaris* antigens, hypersensitivity to, 1264
 - Askenase, Philip W., 1578
 - L-Asparaginase, in allergic encephalomyelitis, 256
 - Augener, Wiprecht, 1024
 - Austen, K. Frank, 14, 802, 1082, 1087, 1096
 - Autoantibodies, γ G erythrocyte
 - comparison of *in vivo* complement coating and *in vitro* "Rh" specificity, 221
 - serologic specificity of, 677
 - Ayoub, Elia M., 342
 - Bach, Gerhard L., 146
 - Bach, Michael K., 746
 - Bacillus Calmette-Guérin-sensitized rabbits, migratory response of granulomatous alveolar cells from, 227
 - Bacteriophage
 - neutralizing antibody, induction by immunogenic RNA, 771, 779
 - ϕ X174, immune response to, 872
 - Bakemeier, Richard F., 677
 - Baker, Phillip J., 1581
 - Bancroft, Frank C., 396
 - Barker, Lewellys F., 1040
 - Barnett, E. V., 824
 - Barnett, Jack A., 404
 - Barta, O., 350
 - Barta, Vera, 350
 - Barth, Rolf F., 634, 1581
 - Bazin, H., 1049
 - Becker, Elmer L., 1057
 - Behelak, Youssef, 238, 1575
 - Beinenstock, John, 274
 - Bell, Clara, 541
 - Bell, Rosalind, 1271
 - Benacerraf, Baruj, 306, 314
 - Benedict, Albert A., 534, 1215

- Benjamin, David C., 537, 1231
 Bennett, J. Claude, 846
 Bentonite immunoadsorbents, in preparation of fluorescein-conjugated antibody reagents, 1151
 Berne, Bernard H., 856
 Bhattacharjee, A. K., 431
 Bing, David H., 1289
 Bishop, C. T., 265
 Blank, F., 265
 Blood group specificity of fresh water catfish, 299
 Boose, Dorothy, 426
 Borella, L., 786
 Borsos, Tibor, 1439
 Bovine serum albumin, *see under* Albumin, bovine serum
 Bragonier, J. Robert, 1175
 Brandriss, Michael W., 1416
 Brandt, Walter E., 838, 1565
 Brashler, John R., 746
 Brent, Robert L., 1175
 Brody, Thomas, 126, 139
 Brooks, David K., 1427
 Bruno, Pauline N., 1124
 Buckley, C. E., III, 964
 Bullock, Ward E., Jr., 1416
 Butler, William T., 584, 1151, 1427, 1432
 Campbell, Dan H., 1264
 Campbell, P. A., 1584
 Capra, J. Donald, 949
 Carbohydrate, of IgA myeloma proteins, 1286
 Carbonyl iron: a new adjuvant for experimental autoimmune diseases, 1530
 Carnegie, Patrick R., 1223
 Casey, Francis B., 1294
 Ceglowski, Walter S., 442, 1406
 Cells, *see also* specific types of cells
 allogeneic spleen, antibody production by host cells in x-irradiated recipients of, 957
 alveolar, granulomatous, migratory response of, from BCG-sensitized rabbits, 227
 antibody-forming
 immunoglobulin classes of, 154
 primary immune response in, 1575
 staircase rise in, in secondary response, 642
 stimulation and inhibition of, 442
 antibody-producing, relation to precursor cells in density fractions of lymph node cells, 1522
 appendix and bone marrow, synergism of, in early antibody response to sheep erythrocytes, 791
 causing graft-vs-host disease, separation of, 1168
 cellular heterogeneity in hemolytic foci, 1584
 cellular reactions to streptococcal M protein, 898
 cellular reactivity to tuberculin, 527
 cellular recognition by mouse lymphocytes, *in vitro*, 984
 chemical modification of, inhibition of anti-hapten response by, 1322
 culture
 mixed, specific stimulation by histocompatibility antigens in, 984
 monolayer, cytostasis of, by normal, unstimulated lymphocytes, 7
 hemolysin-forming clusters, ultrastructural analysis of, 1299
 hepatoma, synthesis of C9 by clonal strain of, 396
 host, x-irradiated, antibody production by, 957
 IgA antibody-forming, after oral immunization, 1049
 in immune response, 1575
 lymph node
 fractionated on bovine plasma albumin, 1512
 precursor cells in density fractions of, 1522
 ribonucleic acid synthesis in, 592
 suspensions to KLH, anamnestic response to, 1389
 lymphoblastoid, from hepatitis patients, 1040
 lymphoid
 γ globulin staining of, 1563
 relationship of Epstein-Barr virus-induced membrane antigens in, to viral envelop antigens, 793
 RNA-treated, transfer of delayed hypersensitivity using, 1313
 role in passive transfer with plasma of delayed hypersensitivity, 1111
 -mediated immunity to soluble antigen, detection of, 919
 myeloid stem, differentiation from rosette-forming cells, 719
 normal and neoplastic, antigenic differences, 1052
 “O,” human, antibody to, 738
 phagocytic, adherence to heterologous thymocytes, 879
 plaque-forming
 effect of soluble polypeptides on, 710
 γ_1 , incorporation of tritiated-thymidine into, during primary immune response, 154
 precursor, in density fractions of lymph node cells, 1522
 proliferation, lymphocyte inhibition of, 48
 radioresistant, and lymphocytes, interaction in PPD-stimulated human leukocyte cultures, 661
 red, heterologous, in mice, immune response to, 118
 regulation of antibody response of type III pneumococcal polysaccharide by, 1581
 required for immunocompetence, 126, 139

- rosette-forming
 antibody synthesis by, 1501
 differentiation from myeloid stem cells, 719
- sensitized, and immune serum, interaction, 471
- serum antibodies to cellular antigens, 912
- spleen
 conversion to antibody-forming cells by RNA, 541
 single, from hyperimmune rabbits, frequency of producing antibody of two different specificities, 537
- SV40 hamster tumor, fetal antigen capable of inducing transplantation immunity against, 524
- transformed by SV40, reaction of serum from pregnant hamsters with surface of, 521
- tuberculin-sensitized peritoneal, stimulated by antigen, release of virus inhibitor from, 1068
- Chiewsilp, Dumrong, 838, 1565
- Chiroptera, immune response in, 872
- Choriomeningitis, lymphocytic, persistent, 829
- Chowdhury, Parimal, 238
- Christian, Charles L., 1493
- Chuba, Joseph V., 299
- Claman, Henry N., 1146
- Clark, Connie, 574
- Clark, L. G., 567
- Clem, L. William, 29, 1547
- Clough, John D., 687
- Cobra venom, depletion of plasma complement by protein of, 55
- Cochrane, Charles G., 55, 1307
- Coe, J., 1006
- Coggins, J. H., 524
- Cohen, J. John, 1146
- Collagen, chemically modified, antigenic properties of, 1131
- Colten, Harvey R., 1439
- Competence, immunologic, selection experiment for, 908
- Complement
 and conglutinin in piglet serum, 350
 C1a fixation and transfer, IgA, IgM and IgG antihapten responses assayed by, 687
 C1-binding affinity, effects of IgG and IgM antibody concentration on, 1013
- C1 esterase
 immunochemical quantitation of, 170
 preparation of monospecific antisera to, 162
- C1s
 immunochemical quantitation of, 162
 purified, microheterogeneity of, 162
- C2 and C4, immune hemolysis and functional properties of, 1439
- C3 in high molecular weight complexes, 1578
- C9, synthesis by clonal strain of rat hepatoma cells, 396
- dependent release of platelet constituents, 476, 490
- fixation
 and antibody affinity, 215
 by IgM-RF and immune complexes, 1206
 effects of IgG and IgM antibody concentration on C1-binding affinity, 1013
- fixing behavior, correlation of antibody specificity with, 677
- guinea pig C2, purification, 327
- hamster, consumption by bacterial endotoxin, 268
- inhibition by aromatic amidine and guanidine compounds, 1289
- plasma, depletion of, by protein of cobra venom, 55
 receptor sites, 670
- Complexes, immune, soluble, 1493
- Conglutinin, and complement in piglet serum, 350
- Conway, Thomas P., 70
- Cooney, Marion K., 531
- Cooperband, S. R., 48
- Cortisone, effect on antigenic competition, 118
- Cosenza, Humberto, 154
- Cotran, Ramzi S., 1536
- Couch, Robert B., 584
- Cowan, K. M., 557
- Crouch, Norman A., 1181
- Cruse, J. M., 1072
- Cyclophosphamide
 effect on antigenic competition, 118
 effect on ontogeny of humoral immune response, 614
- Cytophilic activity, of human immunoglobulins, 362
- Dalessio, Donald J., 248
- Damrongsak, Damri, 442
- Das, Saroj, 938
- David, John R., 1447
- Dengue
 antigens, 1565
 virus, soluble antigens of, 838
- Dietrich, Felix M., 118
- Diseases, *see* specific diseases
- Dixon, Frank J., 279, 829
- DNA, single-stranded, in adeno-associated satellite virions, 824
- Donahue, Helaine, A., 592
- Doria, G., 1049
- Dorsey, F. C., 964
- Douglas, R. Gordon, Jr., 584
- Downie, Jean C., 620
- Dray, S., 1313
- Dray, Sheldon, 70, 541, 653, 856, 1334
- Drusin, Ronald E., 1493
- Duff, Ronald, 521

- Dukor, Peter, 118
 Dupuy, J. M., 1111, 1292
- Edelin, Joseph B., 634
 Edgington, Thomas S., 248
 Edwards, G. E., 719
 Egan, Marianne, 704, 710
 Ehrlich, G., 755, 764
 Ellison, George W., 322
 Encephalitis, virus, immunodiffusion of, 1194
 Encephalitogen, inhibition of encephalomylitis by, 322
 Encephalitogenic protein, modified, 865
 Encephalomylitis
 allergic, L-asparaginase in, 256
 encephalitogenic peptides, immunogenicity of, 1223
 experimental allergic, transfer activity and γ globulin staining of lymphoid cells, 1563
 inhibition by encephalitogen, 322
 Endotoxin
 bacterial, consumption of hamster complement by, 268
 mitogenicity of, 1453
 tolerance, mechanisms of, 1468
 Enterotoxin B, staphylococcal, mitogenicity of, 1453
 Epstein-Barr virus-induced membrane antigens in lymphoid cells, relationship to viral envelop antigens, 793
 Epstein, Robert B., 627
 Erythrocytes
 autoantibodies, γ G
 comparison of *in vivo* complement coating and *in vitro* "Rh" specificity, 221
 serologic specificity of, 677
 sheep, early antibody response to, 791
 Escherichia coli somatic antigen, tolerance to, 1001
 Espinosa, Enrique, 416
 Esterase
 activatable, of neutrophil, 1057
 C1,
 immunochemical quantitation of, 170
 preparation of monospecific antisera to, 162
 Eyster, M. Elaine, 221
- Falk, George A., 1559
 Fanger, Michael W., 1043, 1484
 Fauci, Anthony S., 215
 Faulkner, W., 786
 Fehr, Kurt, 886, 973
 Fibroblasts, intraperitoneal, rejection, 1375
 Fibroma virus, surface antigen of, 1181
 Field, Charles, 193
 Fielder, R. J., 265
 Finstad, J., 1278
 Finstad, Joanne, 738
- Fischbach, Michael, 1146
 Foot-and-mouth disease, immunochemical studies, 557
 Fox, Eugene N., 898, 1031,
 Frank, Michael M., 215, 1175
 Friedman, Herman, 193, 442, 1001, 1406
 Frommel, D., 1, 1278, 1292
 Fudenberg, H. Hugh, 1286
- Gaarder, Per Ivar, 928
 Galindo, Benito, 227
 Gamma globulin, *see under Globulins*
 Gasser, David L., 908
 Gehle, Warren D., 1036
 Gelatin studies, 797
 Genetic control of the specificity of anti-DNP antibodies, 306, 314
 Gerber, Paul, 793
 Gill, Thomas J., III, 14
 Gilman-Sachs, Alice, 70
 Globulins, *see also* specific type of globulin
 anti-allotypic, antibody fragments of, 1400
 antiglobulin reagents, transformation of peripheral lymphocytes by, 1484
 γ globulins
 and passive cutaneous anaphylaxis, 1296
 bovine, immunologic tolerance to, 370
 bovine, ultracentrifuged, immunosuppressive effect of serum from CBA mice made tolerant by supernatant from, 426
 staining of lymphoid cells, 1563
 γ G globulins, interaction with staphylococcal protein A, 1353
 γ G, mechanism of heat aggregation of, 1024
 Peromyscus 7 γ_1 and 7 γ_2 , 1006
 Glomerulonephritis, antigen quantitation in, 279
 Glycosyl transferases for mouse IgG, 271
 Goldblatt, Peter J., 1569
 Goldlust, Marvin B., 396
 Goldstein, Gerald, 793
 Good, R. A., 1, 1111, 1278, 1292
 Good, Robert A., 738
 Graft
 intraperitoneal, rejection, 1375
 marrow, effect of pre-transfusion on, 627
 -*vs*-host activity
 hydrocortisone resistance of, 1146
 separation of cells causing, 1168
 Grappel, S. F., 265
 Green, J. A., 48
 Greisman, Sheldon E., 1468
 Grey, Howard M., 75, 362, 1024, 1116
- Haasz, Robert, 1575
 Habeeb, A. F. S. A., 846
 Hamilton, L. D., 175
 Hammon, W. McD., 1194
 Hammond, William S., 1299

- Hand, Terry L., 442
Hapten
 -altered native product, hypersensitivity induced by, 1416
 phosphatidylinositol, immunochemistry of, 502
 poly-L-aspartate, variation in size of antibody sites for, during immune response, 460
 polysaccharide, streptococcal group A, 342
 simple, genetic control of antibody response to, in congenic strains of mice, 98
 -specific delayed reactions, 471
Harris, Donald L., 1565
Harris, T. N., 1501, 1512, 1522
Harrison, Bettina Hall, 38
Hart, David A., 1043, 1484
Hatten, Betty A., 872
 Heart tissue, human, antigenic analysis of, 416
 Heat aggregation of human γ G, 1024
Heiner, Douglas C., 238
Helms, Charles M., 1253
 Hemagglutination, passive, 797
 Hemagglutinin-inhibiting antibodies to influenza, 620
Hemocyanin
 keyhole limpet, anamnestic response to, 1389
 thymus dependency of immune response to, 1339
 Hemolysin-forming cell structures, ultrastructural analysis of, 1299
 Hemolysis, immune, and functional properties of C2 and C4, 1439
Henney, Christopher S., 919
Henson, Peter M., 476, 490
Hepatitis
 -associated "Australia" antigen and antibodies, 604
 patients, lymphoblastoid cells from, 1040
 Hepatoma cells, synthesis of C9 by clonal strain of, 396
 Herpes-like virus, in continuous lymphoblastoid cell lines from patients with viral hepatitis, 1040
Herscowitz, Herbert B., 771, 779, 1389
Hikita, Michiko, 1553
Hildemann, W. H., 98, 912
Hill, Joseph M., 256
 Histamine, immunologic release of, capacity of IgE to mediate, 1087
Hook, William A., 268
Hopps, Hope E., 1040
Howell, J., 1278
Howell, John, 738
Huber, Heinz, 670
Hughes, Stephanie J., 1400
Hurvitz, Arthur I., 949
 Hydrocortisone resistance of GvH reactions, 1146
Hypersensitivity
 delayed, 471
 inhibition of macrophage migration in, 1360
 interspecies transfer with RNA, 1334
 passive transfer of, 1111
 RNA transfer of, 1313
 to a soluble antigen, 1447
 to insulin and its component polypeptide chains, 574
 to *Trichinella spiralis*, 175
 induced by hapten-altered native product, 1416
 to *Ascaris* antigens, 1264
Hypogammaglobulinemia, metabolism of γ G and γ M immunoglobulins in chickens with, 1
 Immune complexes, soluble, 1493
 Immune reaction, cytotoxic, 755, 764
 Immune response, *see* Response, immune
Immunity
 and tolerance, interrelationships, 370
 cell-mediated, to soluble antigen, detection of, 919
 transplantation, against SV40 hamster tumor cells, 524
 Immunoabsorbents, bentonite, in preparation of fluorescein-conjugated antibody reagents, 1151
 Immunoabsorption techniques, in preparation of chemical agammaglobulinemia, 1292
 Immunocompetence, cells required for, 126, 139
 identification of, 126
 ontogeny of, 139
 Immunofluorescence methods of humoral anti-myelin antibodies in man, 248
Immunoglobulins, *see also* Globulins
 avian, antigenic relationships between, 1215
 canine, quantitation of, 698
 classes of antibody-forming cells, 154
 concentration, human serum, effect of aging on, 964
 cross-reacting, abrogation of immunologic unresponsiveness by, 1072
 degradation by intracellular proteases, 886
 equine, 1253
 γ A, rabbit colostral, presence of allotypic specificities of three loci on individual molecules of, 70
 γ E, human, in respiratory fluid, 85
 γ G erythrocyte autoantibodies, comparison of *in vivo* complement coating and *in vitro* "Rh" specificity, 221
 γ G, in normal and hypogammaglobulinemic chickens, 1
 γ M, in normal and hypogammaglobulinemic chickens, 1
 human colostral γ A, synthesis of, 274
 human, cytophilic activity of, 362
IgA
 antibody-forming cells after oral immunization, 1049

- antihapten responses assayed by C1a fixation and transfer, 687
- concentrations in nasal secretions, changes in, 584
- in cord sera, immunoassay, 786
- isolation, 146
- myeloma proteins, carbohydrate content of, 1286
- secretory, in human serum, 43
- secretory component, identification of 1327
- subunit structure of, 75
- IgD, physicochemical characterization of, 238
- IgE
- immunochemical and biologic properties, 1082, 1087, 1096
 - immunochemical identification of, 1082
 - molecules, presence on basophilic leukocytes, 1459
 - structural studies, 783
- IgG
- antibody concentration, effects on C1-binding affinity, 1013
 - antigens of, rheumatoid factors reacting with, 928
 - antihapten responses assayed by C1a fixation and transfer, 687
 - anti-IgG, antibody fragments of, 1400
 - concentrations in nasal secretions, changes in, 584
 - degradation by lysosomal acid proteases, 973
 - glycosyl transferases for, 271
 - IgG2a myeloma protein with anti-dinitrophenyl activity, 812
 - IgG(T) and antipneumococcal γ_1 -component, antigenic interrelationships, 1253
 - λ -like light chains, unblocked N-terminal sequence of, 534
 - molecules, presence on basophilic leukocytes, 1459
 - protein A-myeloma IgG complement-fixing complexes, 944
- IgM
- antibody concentration, effects on C1-binding affinity, 1013
 - antihapten responses assayed by C1a fixation and transfer, 687
 - incorporation of tritiated thymidine into, during primary immune response, 154
 - maleylated chains of, 846
 - reductive fragmentation of, 451
 - RF, complement fixation by, 1206
 - in bronchitis and emphysema, 1559
 - λ chains, subtypes of, 1033
 - lamprey, 738
 - structure of, 1278
 - protein A reactivity with, 1116
 - serum 19S and 7S IgM of sharks, metabolic properties of, 29
- shark, normal, reactivity with nitrophenyl ligands, 1547
- Immunosuppression
- by leukemia viruses, 1406
 - with procarbazine, 1271
- Implants, tonsillar, in neonatally thymectomized mice, 38
- Inchley, Christopher, 362
- Influenza
- neuraminidase, nasal antibody to, 620
 - virus, specificity of respiratory secretion antibody against, 1477
- Ingram, D. G., 350
- Inhibition of guinea pig complement, 1289
- Inman, F. P., 451
- Insulin, delayed hypersensitivity to, 574
- Interferon induced by *Rickettsia mooseri*, 1553
- Iron, carbonyl: a new adjuvant for experimental autoimmune diseases, 1530
- Ishizaka, Kimishige, 85, 1459
- Ishizaka, Teruko, 1459
- Jamieson, Crawford W., 7
- Jamuar, M. P., 175
- Janicki, Bernard W., 527
- Jenkins, David E., Jr., 221
- Johnson, Armead H., 1427, 1432
- Johnson, John S., 215, 698
- Joslin, Fenneke G., 1103
- Juras, D. S., 1244
- Jureziz, R. E., 1313
- Kanner, Steven P., 1052
- Kantor, Fred S., 471
- Kaplan, Allen P., 802
- Kaplan, Melvin H., 416
- Karakawa, Walter W., 389
- Kasakura, Shinpei, 1162
- Kataoka, Tateshi, 502
- Kenny, George E., 531
- Khan, Amanullah, 256
- Kibrick, S., 48
- Kim, C. W., 175
- Klapper, David G., 29
- Knight, Katherine L., 856
- Kniker, William T., 1036
- Kochwa, Shaul, 783
- Kohase, Masayoshi, 1553
- Kohno, Seiya, 1553
- Kong, Yi-Chi M., 370
- Koopman, William J., 1096
- Koprowski, Hilary, 291
- Kronvall, Göran, 1116, 1353
- Kubo, Ralph T., 534
- Kühn, K., 1131
- Kuhns, William J., 299
- Kunkel, Henry G., 1103

- Kunz, Heinz W., 14
 Kyriakos, Michael, 1201
- Lance, Eugene M., 108
 Lantz, Marjorie A., 1108
 Leachman, Robert D., 1427
 Lecithin, role as auxiliary lipid, 502
 Leddy, John P., 677
 Lennette, Edwin H., 604
 Lennon, Vanda A., 1223
 Leonard, Edward J., 1578
 Lerman, S. P., 614
 Leskowitz, Sidney, 938
 Leslie, Gerrie A., 1215, 1547
 Leukemia viruses, immunosuppression by, 1406
 Leukocytes
 antigenically stimulated and unstimulated, heterogeneity of blastogenic factors produced by, 1162
 basophilic, presence of IgE and IgG molecules on, 1459
 cultures, interaction of lymphocytes in, 661
 migration, inhibition of, 1447
 Levi, G., 1049
 Levine, Seymour, 1530
 Liakopoulou, Athanasia, 512
 Liberti, P. A., 567
 Lichter, Edward A., 70
 Lightfoot, Robert W., Jr., 1493
 Linscott, William D., 1013
 Linthicum, D. Scott, 912
 Lipids, auxiliary, role of lecithin as, 502
 Litman, G. W., 1278, 1292
 Litman, Gary W., 738
 Litt, Mortimer, 1536
 Little, J. Russell, 592
 Liu, Chi Tan, 797
 Liver, role in endotoxin tolerance, 1468
 Logan, Leslie C., 1108
 LoSpalluto, Joseph, 973
 LoSpalluto, Joseph J., 886
 Lymph nodes
 cells fractionated on bovine plasma albumin, 1512
 mouse popliteal, mouse cell responses in, to primary antigenic stimuli, 187
 Lymphoblastoid cells, from hepatitis patients, 1040
 Lymphocytes
 allogeneic, transformation of mouse lymphocytes to, 90
 antibody fragments and, 1400
 antigen-stimulated, activation of normal rabbit macrophage monolayers by supernatants of, 1138
 antilymphocytic serum, correlative assay for, 746
 cellular recognition by, 984
 fractions, antisera to, 1569
 human peripheral
 inhibition of target cell proliferation by supernatants from cultures of, 48
 receptor sites for complement on, 670
 interaction in PPD-stimulated leukocyte cultures, 661
 normal, unstimulated, cytostasis of mouse and human monolayer cell cultures by, 7
 peripheral
 effect of reducing agents on, 1043
 transformation by antiglobulin reagents, 1484
 proliferative rates of, 734
 response to PHA and antigen, 204
 tissue distribution of, 730
 transformation to allogeneic lymphocytes and phytohemagglutin, 90
 tumor reaction, 1052
 yellow fever and, 1304
 virus replication in, 1304
 Lymphocytic choriomeningitis viral infection, 829
 Lymphoid cells, *see* Cells, lymphoid
 Lysine residues of basic brain protein, effect on encephalitogenic activity, 865
 Mach, J. P., 43
 MacPherson, Catherine F. C., 512
 Macroglobulin
 α_2 , Mt-3 and Mt-4 allotypes, 856
 monoclonal, canine, 949
 Macrophages
 and lymph node supernatants, 1138
 in thymectomized mice, role of, 1339
 migration in delayed hypersensitivity, inhibition of, 1360
 peritoneal, peroxidase in, 1536
 Mage, R. G., 1046
 Makinodan, T., 642
 Malmgren, Richard A., 634
 Mangi, Richard J., 90, 1052
 Manski, W., 755, 764
 Mardiney, Michael R., Jr., 90, 1052
 Marsh, B., 984
 Mascari, Ruth A., 1400
 Mascari, Ruth Ann, 1569
 Mast cells, responses to primary antigenic stimuli, 187
 Maurer, Paul H., 567, 704, 710, 1011
 Mayer, Manfred M., 327, 396
 Mayor, H. D., 824
 McDevitt, Hugh O., 1190
 McDonald, Hugh C., 389
 McFarland, William, 661
 McMaster, Philip R. B., 1201
 Meigel, W., 1131
 Mergenhagen, Stephan E., 268
 Messner, Ronald P., 1353

- Meyer, Harry M., Jr., 1040
 Michael, J. Gabriel, 411
 Michlmayr, Gerhard, 670
 Miller, Jimmie A., 327
 Miller, R. G., 719, 1168
 Milstone, Leonard M., 1068
 Miniats, O. P., 350
 Mishell, Robert I., 1322
 Mittal, Kamal K., 1427, 1432
 Moav, Neomi, 1501, 1512, 1522
 Modabber, Farrokh, 355
 Mooney, John J., 1138
 Moore, Virginia G., 592
 Morris, James E., 451
 Mosley, Wiley H., 431
 Müller-Eberhard, Hans J., 55
 Munoz, J., 574
 Murphy, P. Dianne, 460
 Murray, Caroline, 411
 Myelin, immunogenicity of EAE peptides from basic protein of, 1223
Myeloma
 anti-DNP, biologic properties, 812
 proteins
 carbohydrate content of, 1286
 reverse passive cutaneous anaphylaxis with, 1103
Myocardium, human, acid extracts of, antigens with restricted organ distribution in, 416
Myrvik, Quentin N., 227
Nagaki, K., 162, 170
Naor, David, 1322
Nativig, Jacob B., 928
Neuraminidase-inhibiting antibodies to influenza, 620
Neutrophils
 activatable esterase of, 1057
 interaction with platelets, 490
Newcomb, Richard W., 85
Nigrelli, Ross F., 299
Nisonoff, Alfred, 653, 1043, 1484
Nojima, Shoshichi, 502
Nora, James J., 1427
Nordin, Albert A., 154
Norins, Leslie C., 1108
Ogawa, Makio, 783
Oldstone, Michael B. A., 829
Orange, Robert P., 1082, 1087
Osserman, Elliott F., 1033
Ovary, Zoltan, 812, 1103
Oxford, J. S., 818
Ozer, H., 791
Pachman, Lauren M., 898
Papermaster, Ben W., 139
Paque, Ronald E., 1334
Parish, W. E., 1296
Paterson, Philip Y., 1563
Patterson, Roy, 1327
Paul, William E., 306, 314
Peavy, Duane L., 1453
Peel, L., 1006
Pepsin digestion of mouse antibody, 1294
Peptides, encephalitogenic, immunogenicity of, 1223
Perey, D. Y. E., 1
Perkins, E. H., 642
Peroxidase, in macrophages, 1536
Perper, Robert J., 746
Peterson, Phyllis, 677
Peterson, Raymond D. A., 1031
Phage, *see* Bacteriophage
Phair, John P., 471
Phillips, R. A., 719, 1168
Phillips, S. Michael, 204
Phosphatidylinositol, haptenic activity of, 502
Phospholipids, immunochemical studies of, 502
Phytohemagglutinin
 response of guinea pig lymphocytes to, 204
 transformation of mouse lymphocytes to, 90
Plasma
 complement, depletion of, by protein of cobra venom, 55
 kinin system, proenzymes of, 1307
Platelets
 constituents, complement-dependent release of, 476, 490
 interaction with neutrophils, 490
Pneumococcal polysaccharide, type III, regulation of antibody response to, 1581
Polack, F. M., 755
Pollara, B. W., 1278
Pollara, Bernard, 738
Poly-L-aspartate hapten, variation in size of antibody sites for, during immune response, 460
Polymers
 synthetic, of amino acids, detection of immune response against, 704, 710
 uronic acid, of *Staphylococcus epidermidis*, strain 53, 389
Polypeptides
 antigenicity of, 567, 1011
 chains, insulin and component, delayed hypersensitivity to, 574
 soluble, effect of incorporation into plaque assay medium, 710
 synthetic
 antibody responses to, 1190
 cross-reacting antibody secreted *in vitro* against, 704
Polysaccharide
 haptens, streptococcal group A, 342
 pneumococcal, type III, regulation of antibody response to, 1581

- protein conjugate, immunogenic, 265
- Pontz, B., 1131
- Potter, C. W., 818
- PPD-stimulated leukocyte cultures, interaction of lymphocytes and a radioresistant cell in, 661
- Prekallikrein, pre-albumin activator of, 802
- Prescott, Benjamin, 1581
- Procarbazine, as immunosuppressant, 1271
- Proteases**
 - intracellular, degradations of immunoglobulins by, 886
 - lysosomal acid, degradation of immunoglobulin G by, 973
- Proteins**
 - A from *Staphylococcus aureus*, 944
 - A reactivity with mouse immunoglobulins, 1116
 - A, staphylococcal, interaction with γ G globulin, 1353
 - antigen, early primary response to, 355
 - basic, of human myelin, immunogenicity of EAE peptide from, 1223
 - basic brain, effect of tryptophan, lysine and arginine residues of, on encephalitogenic activity, 865
 - IgA myeloma, carbohydrate content of, 1286
 - IgG2a myeloma with anti-dinitrophenyl activity, biologic properties, 812
 - myeloma, reverse passive cutaneous anaphylaxis with, 1103
 - of cobra venom, depletion of plasma complement by, 55
 - streptococcal M-protein, antibody to, 379
 - Proteus mirabilis*, somatic (O) antigens of, heterogeneity of immune response to 404
 - Rabies virus, antigen in cultures of, 291
 - Rapp, Fred, 521
 - Rapp, Herbert J., 1439
 - Rathbun, W. E., 98
 - Rawls, William E., 1181
 - Reactions, *see also* specific type of reaction delayed, hapten-specific, 471
 - Reisberg, Margaret A., 1151
 - Response
 - anamnestic, to KLH, 1389
 - antibody
 - early, to sheep erythrocytes, synergism of appendix and bone marrow cells in, 791
 - genetic control of, to simple haptens in congenic strains of mice, 98
 - humoral, to *Salmonella typhi* "H" antigens and bovine serum albumin, effect of heterologous antilymphocyte serum on, 108
 - in hagfish, 912
 - initiation by different classes of lymphocytes, 730, 734
 - lymphocytotoxic, to cardiac allotransplantation, 1427, 1432
 - to Poly Glu⁵² Lys⁵³ Tyr¹⁵ in the inbred rat strains ACI and F344, 14
 - to streptococcal M protein, 898
 - to synthetic polypeptides, 1190
 - to type III pneumococcal polysaccharide, 1581
 - chemotactic, activatable esterase of rabbit neutrophil in, 1057
 - immune
 - against synthetic polymers of amino acids, detection of, 704, 710
 - antigen binding and, 355
 - anti-hapten, inhibition of, 1322
 - cells involved in, 259, 1575
 - contribution of IgA antibody-forming cells to, 1049
 - evolution of, 738, 1278
 - genetic and cellular factors in, 14
 - genetic control, 908
 - humoral, effect of cyclophosphamide on ontogeny of, 614
 - in Chiroptera, 872
 - of mice to *Serratia marcescens* LPS or intact bacteria, 193
 - primary, effects of blocking agent on, 411
 - primary, incorporation of tritiated thymidine into IgM and γ_1 plaque-forming cells during, 154
 - to DNP-HSA, 1416
 - to hemocyanin, thymus dependency of, 1339
 - to heterologous red cells in mice, 118
 - to somatic (O) antigens of *Proteus mirabilis*, 404
 - variation in size of antibody sites for poly-L-aspartate hapten during, 460
 - primary, early, to protein antigen, 355
 - secondary, antibody-forming cells in, staircase rise in, 642
 - Reticuloendothelial system, blockade produced by antilymphocyte serum, 634
 - Reynolds, Herbert Y., 698
 - Rheumatic fever antigens, 1031
 - Rheumatoid factors
 - and "non a" antigen, 928
 - IgM, complement fixation by, 1206
 - Rhinovirus types 9 and 32, reciprocal neutralizing cross-reaction between, 531
 - Ribonucleic acid, synthesis, in rabbit lymph node cells, 592
 - Richardson, Walter P., 1563
 - Richter, Maxwell, 259, 1575
 - Rickettsia mooseri*, interferon induced by, 1553
 - Ricks, John, 1327
 - RNA
 - antibodies induced by, 1244
 - immunogenic
 - induction of bacteriophage-neutralizing antibody by, 771, 779
 - phage antigen in, 779

- Roberts, Audrey N., 187
 Roberts, Mary, 1327
 Rochelle, Donald G., 1427
 Rommel, Fred A., 396
 Rose, Bram, 238
 Rosenberg, Steven A., 1447
 Rosenblum, Irwin Y., 534
 Rosette formation, *see Cells, rosette-forming*
 Rossen, Roger D., 584, 1151, 1427, 1432
 Rowe, D. S., 43
 Rubella, Cendehill vaccine strain, immunologic marker for, 818
 Rudikoff, Stuart, 1344
 Rudolph, Robert H., 627
 Russell, Philip K., 838, 1565
 Russell, Warren J., 262
 Rutstein, J. A., 48
- Sado, Toshihiko, 642
 Sage, Harvey J., 460
 Saha, Anil, 238
 Sakata, Hiroko, 1553
Salmonella typhi "H," humoral antibody response to, effect of antilymphocyte serum on, 108
 Sambury, Sheldon, 238
 Sanford, Jay P., 404
 Sather, G. E., 1194
 Saunders, George C., 1299
 Scales, R. W., 1072
 Schechter, Geraldine P., 527, 661
 Schenkein, Isaac, 271
 Schlumberger, H. Dieter, 291
 Schmid, Frank R., 1206
 Schmidt, Nathalie J., 604
 Schmidt, Willard C., 342
 Schrohenloher, Ralph E., 846
 Schultz, Karen E., 527
 Sell, Stewart, 154, 1400, 1569
 Sensitization, passive, mechanisms of, 1459
 Sercarz, Eli, 355
Serratia marcescens, immune response of mice to, 193
 Serum
 albumin, bovine, *see under* Albumin, bovine serum
 antibodies, to cellular antigens, 912
 antilymphocyte, *see* Antilymphocyte serum
 complement and conglutinin in, 350
 cord, IgA in, immunoassay, 786
 for A14 and A15 allotypes, typing, 1046
 from CBA mice, immunosuppressive effect of, 426
 human
 isolation of IgA from, by immunoabsorption, 146
 secretory IgA in, 43
 immune, and sensitized cells, interaction of, 471
 pregnant hamster, and SV40 S antigen, 521
 sickness, acute, 279
 Shalitin, Nurit, 75
 Sheagren, John N., 634
 Sher, Alan, 75
 Shimizu, Yukiko, 1553
 Shin, Hyun S., 327
 Shishido, Akira, 1553
 Siegel, Israel, 879
 Sigel, M. Michael, 262, 1344
 Siskind, Gregory W., 1559
 Sjöquist, J., 944
 Small, P. A., Jr., 1477
 Small, Parker A., Jr., 29
 Smith, James P., Jr., 1559
 Smith, James W., 404
 Smith, Kendall O., 1036
 Smith, R. F., 1006
 Smith, R. T., 984
 Smith, Richard T., 1453
 Smyth, A. Collier, 1360
 Smyth, Prudence, 1375
 Snyderman, Ralph, 268
 Sowinski, Richard, 1530
 Spring, Susan B., 653
 Stålenheim, G., 944
Staphylococcal enterotoxin B, mitogenicity of, 1453
Staphylococcus aureus
 protein A from, 944
 interaction with γ G globulin, 1353
Staphylococcus epidermidis, strain 53, uronic acid polymer of, 389
Streptococcus
 group A, cross-reactions among, 1124
 M protein, cellular and antibody reactions to, 898
 streptococcal M-protein antibody to, 379
 vaccines, 1031
 Stashak, Philip W., 1581
 Stavitsky, Abram B., 1389
 Stechschulte, Daniel J., 14, 1082, 1087
 Steffen, C., 1181
 Stella, M. M., 43
 Stelos, Peter, 771, 779
 Stevens, David P., 1040
 Stewart, P. Brian, 1271
 Stjernholm, Rune L., 1304
 Storb, Rainer, 627
 Storb, U., 957
 Straus, Hans, 274
 Strejan, Gill, 1264
 Strober, Samuel, 730, 734
 Strober, Warren, 687
 Stroud, R. M., 162, 170
 Sulkin, S. Edward, 872
 Swanborg, Robert H., 865

- Syphilis, serologic test for, false-positive reactions, 1108
- Takiguchi, T., 984
- Tashjian, Armen H., Jr., 396
- Terry, William D., 783
- Tesar, Joseph T., 1206
- Tevethia, S. S., 1181
- Thomas, E. Donnall, 627
- Thor, D. E., 1313
- Thymidine, tritiated, incorporation into IgM and γ_1 plaque-forming cells during primary immune response, 154
- Thymocytes
- autologous and heterologous, adherence of phagocytic cells to, 879
 - Cr-labeled, lymphocytophilic antibody activity using, 746
 - subcellular fractions, antisera to, 1569
- Thymus
- dependency of immune response to hemocyanin, 1339
 - fractions, calf, stimulation and inhibition of antibody-forming cells by, 442
 - independent antibody responses, 1190
 - role in tolerance, 322
- Thyroid, antigenic competition to, 1201
- Thyroiditis, allergic, prevention by antigenic competition, 1201
- Timpl, R., 1131
- Tischendorf, Frank W., 1033
- Tischendorf, Margrit M., 1033
- Tissue, *see also* specific type of tissue
- action of antibodies on, 755, 764
 - antisera, production of congenital malformations using, 1175
 - nervous, species-restricted antigen of, isolation and partial characterization of, 512
- Tokuda, Sei, 1294
- Tolerance
- and immunity, interrelationships, 370
 - endotoxin, mechanisms of, 1468
 - immunologie, to *Escherichia coli* somatic antigen, 1001
 - induction, kinetics of, 938
 - role of thymus in, 322
- Tomioka, Hisao, 1459
- Tompkins, Wayne, A. F., 1181
- Tong, James L., 426
- Torikai, K., 824
- Tosi, S. Landucci, 1046
- Toy, Stephen T., 1304
- Transferases, glycosyl, for mouse IgG, 271
- Transplantation
- cardiac, lymphocytotoxic antibody response to, 1427, 1432
 - immunity against SV40 hamster tumor cells, 524
- Trichinella spiralis*
- delayed hypersensitivity to, 175
 - Tryptophan residues of basic brain protein, effect on encephalitogenic activity, 865
- Tuberculin
- cellular reactivity to, 527
 - hypersensitivity and virus inhibition, 1068
- Tucker, Ernest S., III, 1307
- Tyan, Marvin L., 1190
- Uhr, Jonathan W., 271, 362
- Unanue, Emil R., 1339
- Unresponsiveness, immunologic, to BSA, termination of, 1231
- Uronic acid, polymer of *Staphylococcus epidermidis*, strain 53, 389
- Vann, D. C., 1584
- Venom, cobra, depletion of plasma complement by protein of, 55
- Vibrio cholerae*, antibodies to, 431
- Virions, adeno-associated satellite, single-stranded DNA in, 824
- Virus, *see also* specific virus
- canine hepatitis, in man, 1036
 - dengue, soluble antigens of, 838
 - encephalitis, immunodiffusion of, 1194
 - fibroma, surface antigen of, 1181
 - influenza, specificity of respiratory secretion antibody against, 1477
 - inhibition, tuberculin hypersensitivity and, 1068
 - leukemia, immunosuppression by, 1406
 - lymphocytic choriomeningitis, persistent, 829
 - rabies, antigen in cultures of, 291
 - replication, in lymphocytes, 1304
 - rubella, Cendehill vaccine strain, immunologic marker for, 818
- Voss, Edward W., 1344
- Voss, Edward W., Jr., 262
- Wagner, G. G., 557
- Waksman, B. H., 791
- Waksman, Byron H., 322, 1068, 1138
- Waldman, R. H., 43, 1477
- Waldmann, Thomas A., 584
- Wallace, John H., 7
- Wang, An-Chuan, 1286
- Ward, Peter A., 1057
- Warner, Noel L., 812
- Weidanz, W. P., 614
- Weigle, William O., 537, 1231
- Weiser, R. S., 957
- Weiss, Leon, 1360, 1375
- Wellings, F. M., 1194
- Wells, J. Vivian, 1043, 1484
- Wheelock, E. Frederick, 1304

Wiger, Donna L., 370
Wigley, F. M., 1477
Wiktor, Tadeusz J., 291
Wiley, Grove G., 1124
Wilks, Ann V., 1223
Williams, Ralph C., Jr., 1116, 1353
Wilson, Curtis B., 279
Wofsy, Leon, 1322
Wolberg, Gerald, 797
Wolff, I., 1181

Woodward, Celeste L., 1468
Wuepper, Kirk D., 1307
Yeaw, Marilyn A., 677
Yoshida, Takeshi 306, 314
Zaccari, June, 687
Ziff, Morris, 886, 973
Zweiman, Burton, 204
Zschocke, Rainer H., 146