

## REFERENCES

---

- ABDOU N.I., WALL H., LINDSLEY H.B., HALSEY J.F. & SUZUKI T. (1981). Network theory in autoimmunity. In vitro suppression of serum anti-DNA antibody binding to DNA by anti-idiotypic antibody in systemic lupus erythematosus. *J Clin Invest* **67**(5): 1297-304
- ABE T., TAKEUCHI T., KIYOTAKI M., KOIDE J., HOSONO O., HOMMA M., OTAKE T. & KANO S. (1984). Anti-idiotypic antibodies in a patient with monoclonal rheumatoid factor after pneumococcal bacteremia. *J Immunol* **132**(5): 2381-5
- ADORINI L., BARNABA V., BONA C.A., CELADA F., LANZAVECCHIA A., SERCARZ E., SUCIU-FOCA N. & WEKERLE H. (1990). New perspective on immunointervention in autoimmune diseases. *Immunol Today* **11**(11): 383-6
- ALBERT L.J. & INMAN R.D. (1999). Molecular mimicry and autoimmunity. *N Engl J Med* **341**(27): 2068-74
- ALTIN J.G., WHITE F.A.J. & EASTON C.J. (2001). Synthesis of the chelator lipid nitrilotriacetic acid ditetradecylamine (NTA-DTDA) and its use with the IAsys biosensor to study receptor-ligand interactions on model membranes. *Biochim Biophys Acta* **1513**: 131-48
- ALVING C.R. & SWARTZ JR G.M. (1991). Antibodies to cholesterol, cholesterol conjugates and liposomes: implications for atherosclerosis and autoimmunity. *Crit Rev Immunol* **10**(5): 441-53
- ALVING C.R. & WASSEF N.M. (1999). Naturally occurring antibodies to cholesterol: a new theory of LDL cholesterol metabolism. *Immunol Today* **20**(8): 362-6
- ANG C.W. (2001). Molecular mimicry in the Guillain-Barré syndrome. PhD. Departments of Immunology and Neurology, Erasmus University Rotterdam, Rotterdam
- ANG C.W., DE KLERK M.A., ENDTZ H.P., JACOBS B.C., LAMAN J.D., VAN DER MECHE F.G.A. & VAN DOORN P.A. (2001a). Guillain-Barré syndrome- and Miller Fisher syndrome-associated *Campylobacter jejuni* lipopolysaccharides induce anti-GM<sub>1</sub> and anti-GQ<sub>1b</sub> antibodies in rabbits. *Infect Immun* **69**(4): 2462-9
- ANG C.W., KOGA M., JACOBS B.C., YUKI N., VAN DER MECHE F.G.A. & VAN DOORN P.A. (2001b). Differential immune response to gangliosides in Guillain-Barré syndrome patients from Japan and the Netherlands. *J Neuroimmunol* **121**: 83-7
- ANG C.W., VAN DOORN P.A., ENDTZ H.P., MERKIES I.S.J., JACOBS B.C., DE KLERK M.A., VAN KONINGSVELD R. & VAN DER MECHE F.G.A. (2000). A case of Guillain-Barré syndrome following a family outbreak of *Campylobacter jejuni* enteritis. *J Neuroimmunol* **111**: 229-33

- AOYAMA K., ISHIKURA H., MISHIMA S., MURAI M., TSUMURA H., KUMAKURA S. & KOBAYASHI S. (2001). Guillain-Barré syndrome complicated with hemolytic anemia in association with antiganglioside GM3 antibody. *Am J Med* **110**: 399-400
- ATHANASSOPOULOU N., DAVIES R.J., EDWARDS P.R., YEUNG D. & MAULE C.H. (1999). Cholera toxin and G<sub>M1</sub>: a model membrane study with IAsys. *Biochem Soc Trans* **27**(2): 340-3
- BAMBAUER R., SCHWARZE U. & SCHIEL R. (2000). Cyclosporin A and therapeutic plasma exchange in the treatment of severe systemic lupus erythematosus. *Artif Organs* **24**(11): 852-6
- BARIÉ N. & RAPP M. (2001). Covalent bound sensing layers on surface acoustic wave (SAW) biosensors. *Biosens Bioelectron* **16**(9-12): 979-87
- BARRY C.E., LEE R.E., MDLULI K., SAMPSON A.E., SCHROEDER B.G., SLAYDEN R.A. & YUAN Y. (1998). Mycolic acids: structure, biosynthesis and physiological functions. *Prog Lipid Res* **37**(2/3): 143-79
- BENNER R., VAN DONGEN J.J., VAN EWIK W. & HAAIJMAN J.J. (1996). Medische immunologie. Utrecht, Wetenschappelijke uitgeverij Bunge
- BIACORE (2001). BIAcore website. <http://www.biacore.com>: <http://www.biacore.com>
- BINZ H. & WIGZELL H. (1975). Shared idiotypic determinants on B and T lymphocytes reactive against the same antigenic determinants. I. Demonstration of similar or identical idiotypes on IgG molecules and T-cell receptors with specificity for the same alloantigens. *J Exp Med* **142**(1): 197-211
- BONA C.A. (1987). Regulatory idiotopes. New York, John Wiley & Sons
- BONA C.A. & BONILLA F.A. (1990). Textbook of immunology. Amsterdam, Harwood Academic Publishers
- BOULLA G., RANDRIAMAMPITA C., RAPOSO G. & TRAUTMANN A. (2000). Binding kinetics of soluble ligands to transmembrane proteins: comparing an optical biosensor and dynamic flow cytometry. *Cytometry* **40**(76-80)
- CALVANICO N.J. (1993). The humoral immune response in autoimmunity. *Dermatol Clin* **11**(3): 379-89
- CAMPBELL S.M., CROWE S.M. & MAK J. (2001). Lipid rafts and HIV-1: from viral entry to assembly of progeny virions. *J Clin Virol* **22**: 217-27
- CAPRA J.D. & KEHOE J.M. (1975). Hypervariable regions, idiotype, and the antigen-combining site. *Adv Immunol* **20**: 1-40
- CHERUKURI A., DYKSTRA M.L. & PIERCE S.K. (2001). Floating the raft hypothesis: lipid rafts play a role in immune cell activation. *Immunity* **14**: 657-60

- CLAFLIN J.L., LIEBERMAN R. & DAVIE J.M. (1974). Clonal nature of the immune response to phosphorylcholine. II. Idiotypic specificity and binding characteristics of anti-phosphorylcholine antibodies. *J Immunol* **112**(5): 1747-56
- CLEM L.W. & LESLIE G.A. (1982). Phylogeny of immunoglobulin structure and fraction XV. Idiotypic analysis of shark antibodies. *Dev Comp Immunol* **6**(3): 463-72
- COOKE A., LYDYARD P.M. & ROIT I.M. (1984). Autoimmunity and idiotypes. *Lancet* **2**(8405): 723-5
- COOPER M.D. (1986). B cell development in birds and mammals. *Prog Immunol* **6**: 18-32
- CORNELL B.A., BRAACH-MAKSVYTIS V.L.B., KING L.G., OSMAN P.D.J., RAGUSE B., WIECZOREK L. & PACE R.J. (1997). A biosensor that uses ion-channel switches. *Nat* **387**: 580-583
- COSENZA H. (1976). Detection of anti-idiotypic reactive cells in the response to phosphorylcholine. *Eur J Immunol* **6**(2): 114-6
- CUATRECASAS P. (1973). Gangliosides and membrane receptors for cholera toxin. *Biochemistry* **12**(18): 3558-66
- CUSH R., CRONIN J.M. & STEWART W.J. (1993). The resonant mirror: a novel optical biosensor for direct sensing of biomolecular interactions Part I: Principle of operation and associated instrumentation. *Biosens Bioelectron* **8**(7-8): 347-54
- CYWES C., HOPPE H.C., DAFFÉ M. & EHLERS M.R.W. (1997). Nonopsonic binding of *Mycobacterium tuberculosis* to complement receptor type 3 is mediated by capsular polysaccharides and is strain dependent. *Infect Immun* **65**(10): 4258-66
- DAFFÉ M. & DRAPER P. (1998). The envelope layers of mycobacteria with reference to their pathogenicity. *Adv Microb Physiol* **39**: 131-203
- DAMIAN R.T. (1964). Molecular mimicry: antigen sharing by parasite and host and its consequences. *Amer Nat* **98**: 129-49
- DAR V.V. & SETH P. (1993). Monoclonal anti-idiotypic antibody to HSV-1 neutralizing monoclonal antibody: production and characterization. *Disease Markers* **11**(2-3): 113-23
- DASGUPTA S. & HOGAN E.L. (2001). Chromatographic resolution and quantitative assay of CNS tissue sphingoids and sphingolipids. *Lipid Research* **42**(2): 301-8
- DECK M.B., SJÖLIN P., UNANUE E.R. & KIHLEBERG J. (1999). MHC-restricted, glycopeptide-specific T cells show specificity for both carbohydrate and peptide residues. *J Immunol* **162**: 4740-4
- DELEU M., NOTT K., BRASSEUR R., JACQUES P., THONART P. & DUFRÈNE Y.F. (2001). Imaging mixed lipid monolayers by dynamic atomic force microscopy. *Biochim Biophys Acta* **1513**: 55-62

- DELFRAISSY J.F., TCHERNIA G., LAURIAN Y., WALLON C., GALANAUD P. & DORMONT J. (1985). Suppressor cell function after intravenous gammaglobulin treatment in adult chronic idiopathic thrombocytopenic purpura. *Br J Haematol* **60**(2): 315-22
- DIAMANDIS E.P. & CHRISTOPOULOS T.K., Eds. (1996). *Immunoassay*. London, Academic Press Inc.
- DIETRICH G., VARELA F., BOUANANI M. & KAZATCHKINE M.D. (1993). Selection of the expressed B cell repertoire by infusion of normal immunoglobulin G in a patient with autoimmune thyroiditis. *Eur J Immunol* **23**(11): 2945-50
- DIJKSTRA J., SWARTZ JR G.M., RANEY J.J., ANIAGLU A., TORO L., NACY C.A. & GREEN S.J. (1996). Interaction of anti-cholesterol antibodies with human lipoproteins. *J Immunol* **157**: 2006-13
- DUBNAU E., CHAN J., RAYNAUD C., MOHAN V.P., LANÉEELLE M.-A., YU K., QUÉMARD A., SMITH I. & DAFFÉ M. (2000). Oxygenated mycolic acids are necessary for virulence of *Mycobacterium tuberculosis* in mice. *Mol Microbiol* **36**(3): 630-7
- DUBNAU E., LANÉEELLE M.-A., SOARES S., BENICHOU A., VAZ T., PROMÉ D., PROMÉ J.C., DAFFÉ M. & QUÉMARD A. (1997). *Mycobacterium bovis* BCG genes involved in the biosynthesis of cyclopropyl keto- and hydroxy-mycolic acids. *Mol Microbiol* **23**(2): 313-22
- DWYER D.S., BRADLEY R.J., URQUHART C.K. & KEARNEY J.F. (1983). Naturally occurring anti-idiotypic antibodies in myasthenia gravis patients. *Nat* **301**(5901): 611-4
- EICHMANN K. & RAJEWSKY K. (1975). Induction of T and B cell immunity by anti-idiotypic antibody. *Eur J Immunol* **5**(10): 661-6
- FEHR J., HOFMANN V. & KAPPELER U. (1982). Transient reversal of thrombocytopenia in idiopathic thrombocytopenic purpura by high-dose intravenous gamma globulin. *N Engl J Med* **306**(21): 1254-8
- FELDMAN R.G., BREUKELS M.A., DAVID S. & RIJKERS G.T. (1998). Properties of human anti-group B streptococcal type III capsular IgG antibody. *Clin Immunol Immunopathol* **86**(2): 161-9
- FISHER M.I. & TJÄRNHAGE T. (2000). Structure and activity of lipid membrane biosensor surfaces studied with atomic force microscopy and a resonant mirror. *Biosens Bioelectron* **15**: 463-71
- FRASER M.E., CHERNAIA M.M., KOZLOV Y.V. & JAMES M.N. (1994). Crystal structure of the holotoxin from *Shigella dysenteriae* at 2.5Å resolution. *Nat Struct Biol* **1**(1): 59-64
- FUJIWARA N., PAN J., ENOMOTO K., TERANO Y., HONDA T. & YANO I. (1999). Production and partial characterization of anti-cord factor (trehalose-6,6'-dimycolate) IgG antibody in rabbits recognizing mycolic acid subclasses of *Mycobacterium tuberculosis* or *Mycobacterium avium*. *FEMS Immunol Mol Microbiol* **24**: 141-9
- GATFIELD J. & PIETERS J. (2000). Essential role for cholesterol in entry of mycobacteria into macrophages. *Science* **298**: 1647-50

- GEORGE K.M., YUAN Y., SHERMAN D.R. & BARRY III C.E. (1995). The biosynthesis of cyclopropenated mycolic acids in *Mycobacterium tuberculosis*. *J Biol Chem* **270**(45): 27292-8
- GOODRUM M.A., SIKO D.G.R., NIEHUES T., EICHELBAUER D. & VERSCHOOR J.A. (2001). Mycolic acids from *Mycobacterium tuberculosis*: purification by countercurrent distribution and T-cell stimulation. *Microbios* **106**(413): 55-67
- GUILLET J.G., CHAMAT S., HOEBEKE J. & STROSBERG A.D. (1984). Production and detection of monoclonal anti-idiotypic antibodies directed against a monoclonal anti-beta-adrenergic ligand antibody. *J Immunol Methods* **74**(1): 163-71
- HAIMOVICH J., CZERWINSKI D., WONG C.P. & LEVY R. (1998). Determination of anti-idiotypic antibodies by surface plasmon resonance. *J Immunol Methods* **214**(1-2): 113-9
- HALL P.D. (1993). Immunomodulation with intravenous immunoglobulin. *Pharmacotherapy* **13**(6): 564-73
- HARVEY H.A., SWORDS W.E. & APICELLA M.A. (2001). The mimicry of human glycolipids and glycosphingolipids by the lipooligosaccharides of pathogenic neisseria and haemophilus. *J Autoimmun* **16**(3): 257-62
- HASTINGS A., MORRISON S.L., KANDA S., SAXTON R.E. & IRIE R.F. (1992). Production and characterization of a murine/human chimeric anti-idiotypic antibody that mimics ganglioside. *Cancer Res* **52**(7): 1681-6
- HIERNAUX J. & BONA C.A. (1982). Shared idiotypes among monoclonal antibodies specific for different immunodominant sugars of lipopolysaccharide of different Gram-negative bacteria. *Proc Natl Acad Sci USA* **79**(5): 1616-20
- HIRMO S., ARTURSSON E., PUU G., WADSTRÖM T. & NILSSON B. (1999). *Helicobacter pylori* interactions with human gastric mucin studied with a resonant mirror biosensor. *J Microbiol Methods* **37**: 177-82
- HO T.W., MISHU B., LI C.Y., GAO C.Y., CORNBATH D.R., GRIFFIN J.W., ASBURY A.K., BLASER M.J. & MCKHANN G.M. (1995). Guillain-Barré syndrome in northern China. Relationship to *Campylobacter jejuni* infection and anti-glycolipid antibodies. *Brain* **118**: 597-605
- HOLMDAHL R., TARKOWSKI A., NORDLING C., RUBIN K. & KLARESKOG L. (1987). Connection between autoimmunity to cartilage type II collagen and rheumatoid factor production. *Monogr Allergy* **22**: 71-80
- HOLMGREN J. (1981). Actions of cholera toxin and the prevention and treatment of cholera. *Nat* **292**: 413-7
- HOOD L.E., KUMAR V., OSMAN G., BEALL S.S., GOMEZ C., FUNKHOUSER W., KONO D.H., NICKERSON D., ZALLER D.M. & URBAN J.L. (1989). Autoimmune disease and T-cell immunologic recognition. Cold Spring Harbor symposia on quantitative biology, Cold Spring Harbor Laboratory Press

- HUDSON J.A., NICOL C., WRIGHT J., WHYTE R. & HASELL S.K. (1999). Seasonal variation of *Campylobacter jejuni* types from human cases, veterinary cases, raw chicken, milk and water. *J Appl Microbiol* **87**: 115-24
- HUGHES R.A.C. (1990). The Guillain-Barré syndrome. London, Springer
- HUGHES R.A.C. & REES J.H. (1997). Clinical and epidemiologic features of Guillain-Barré syndrome. *J Infect Dis* **176 (Suppl 2)**: S92-8
- IASYS A.S. (1995a). IASys plus user's guide. Cambridge, Human-Computer Interface Limited
- IASYS A.S. (1995b). Methods guide. Cambridge, Human-Computer Interface Limited
- IASYS A.S. (1996). FASTfit guide. Cambridge, Human-Computer Interface Limited
- ILYAS A.A., QUARLES R.H., DALAKAS M.C., FISHMAN P.H. & BRADY R.O. (1985). Monoclonal IgM in a patient with paraproteinemic polyneuritis binds to gangliosides containing disialosyl groups. *Ann Neurol* **18(6)**: 655-9
- JACKSON M., RAYNAUD C., LANÉELLE M.-A., GUILHOT C., LAURENT-WINTER C., ENSERGUEIX D., GICQUEL B. & DAFFÉ M. (1999). Inactivation of the antigen 85C gene profoundly affects the mycolate content and alters the permeability of the *Mycobacterium tuberculosis* cell envelope. *Mol Microbiol* **31(5)**: 1573-87
- JACOBS B.C., ROTHBART P.H., VAN DER MECHÉ F.G.A., HERBRINK P., SCHMITZ P.I.M., DE KLERK M.A. & VAN DOORN P.A. (1998). The spectrum of antecedent infections in Guillain-Barré syndrome: a case-control study. *Neurology* **51**: 1110-5
- JEAN-FRANCOIS M.J., POSKITT D.C., MACDONALD L.M., TURNBULL S.J. & YASMEEN D. (1993). Production of monoclonal anti-idiotypic antibodies which mimic an M-like protein of *Streptococcus equi*. *Microbiol Immunol* **37(9)**: 737-42
- JELESAROV I. & BOSSHARD H.R. (1999). Isothermal titration calorimetry and differential scanning calorimetry as complementary tools to investigate the energetics of biomolecular recognition. *J Mol Recognit* **12**: 3-18
- JERNE N.K. (1974). Towards a network theory of the immune system. *Ann Immunol* **125C**: 373-89
- JOHNSON P.M., PHUA K.K. & EVANS H.B. (1985). An idiotypic complementarity between rheumatoid factor and anti-peptidoglycan antibodies? *Clin Exp Immunol* **61(2)**: 373-8
- JOHNSTON R. (2003). AIDS VAX results: an answer, or just more questions? *AIDS Patient Care STDS* **17(2)**: 47-51
- KALB E., FREY S. & TAMM L.K. (1992). Formation of supported planar bilayers by fusion of vesicles to supported phospholipid monolayers. *Biochim Biophys Acta* **1103**: 307-16
- KANEDA K., NAITO S., IMAIZUMI S., YANO I., MIZUNO S., TOMIYASU I., BABA T., KUSUNOSE E. & KUSUNOSE M. (1986). Determination of molecular species composition

- of C<sub>80</sub> or longer-chain  $\alpha$ -mycolic acids in *Mycobacterium* spp. by gas chromatography-mass spectrometry and mass chromatography. *J Clin Microbiol* **24**(6): 1060-70
- KARLSSON K.-A. (1995). Microbial recognition of target-cell glycoconjugates. *Curr Opin Struct Biol* **5**: 622-35
- KAROL R., REICHLIN M. & NOBLE R.W. (1978). Idiotypic cross-reactivity between antibodies of different specificities. *J Exp Med* **148**(6): 1488-97
- KAZATCHKINE M.D. & COUTINHO A. (1993). Are lymphocytes concerned with our definition of idiotypes? *Immunol Today* **14**(10): 513-5
- KEARNEY J.F., VAKIL M. & SOLVASON N. (1989). The role of idiotypic interactions and the B-cell subsets in development of the B-cell repertoire. Cold Spring Harbor symposia on quantitative biology, Cold Spring Harbor Laboratory Press
- KENNERLY D.A. (1986). Improved analysis of species of phospholipids using argentation thin-layer chromatography. *J Chromatogr* **363**: 462-7
- KIEBER-EMMONS T. (1998). Peptide mimotopes of carbohydrate antigens. *Immunol Res* **17**: 95-108
- KIM J.H., CHO J.H., CHA G.S., LEE C.W., KIM H.B. & PAEK S.H. (2000). Conductimetric membrane strip immunosensor with polyaniline-bound gold colloids as signal generator. *Biosens Bioelectron* **14**(12): 907-15
- KISHIMOTO K., URADE R., OGAWA T. & MORIYAMA T. (2001). Nondestructive quantification of neutral lipids by thin-layer chromatography and laser-fluorescent scanning: suitable methods for "lipidome" analysis. *Biochem Biophys Res Commun* **281**(3): 657-62
- KLUSKENS L. & KÖHLER H. (1974). Regulation of immune response by autogenous antibody against receptor. *Proc Natl Acad Sci USA* **71**(12): 5083-7
- KÖHLER H. (1975). The response to phosphorylcholine: dissecting an immune response. *Transplant Rev* **27**: 24-56
- KRAIG E., KRONENBERG M., KAPP J.A., PIERCE C.W., ABRUZZINI A.F., SORENSEN C.M., SAMELSON L.E., SCHWARTZ R.H. & HOOD L.E. (1983). T and B cells that recognize the same antigen do not transcribe similar heavy chain variable region gene segments. *J Exp Med* **158**(1): 192-209
- KULYS J. & VIDZIUNAITE R. (2003). Amperometric biosensors based on recombinant laccases for phenols determination. *Biosens Bioelectron* **18**(2-3): 319-25
- KUROSAWA Y., VON BOEHMER H., HAAS W., SAKANO H., TRAUNEKER A. & TONEGAWA S. (1981). Identification of D segments of immunoglobulin heavy-chain genes and their rearrangement in T lymphocytes. *Nat* **290**(5807): 565-70
- KURZCHALIA T.V. & PARTON R.G. (1999). Membrane microdomains and caveolae. *Curr Opin Cell Biol* **11**(4): 424-31

- KUZIEMKO G.M., STROH M. & STEVENS R.C. (1996). Cholera toxin binding affinity and specificity for gangliosides determined by surface plasmon resonance. *Biochemistry* **35**: 6375-84
- LACROIX-DESMAZES S., MOUTHON L., SPALTER S.H., KAVERI S. & KAZATCHKINE M.D. (1996). Immunoglobulins and the regulation of autoimmunity through the immune network. *Clin Exp Rheumatol* **14 (Suppl. 15)**: S9-15
- LASTOVICA A.J., GODDARD E.A. & ARGENT A.C. (1997). Guillain-Barré syndrome in South Africa associated with *Campylobacter jejuni* O:41 strains. *J Infect Dis* **176 (Suppl 2)**: S139-43
- LAVAL F., LANÉELLE M.-A., DÉON C., MONSARRAT B. & DAFFÉ M. (2001). Accurate molecular mass determination of mycolic acids by MALDI-TOF mass spectrometry. *Anal Chem* **73**: 4537-44
- LEMKE H., LANGE H. & BEREK C. (1998). Maternal immunization modulates the primary immune response to 2-phenyl-oxazolone in BALB/c mice. *Eur J Immunol* **28(5)**: 1743
- LI J., WU Z.Y., XIAO L.T., ZENG G.M., HUANG G.H., SHEN G.L. & YU R.Q. (2002). A novel piezoelectric biosensor for the detection of phytohormone beta-indole acetic acid. *Anal Sci* **18(4)**: 403-7
- LIU J., BARRY C.E., BESRA G.S. & NIKAIDO H. (1996). Mycolic acid structure determines the fluidity of the mycobacterial cell wall. *J Biol Chem* **271**: 29 - 545, 551
- LOSMAN M.J., LEUNG S.O., SHIH L.B., SHEVITZ J., SHUKLA R., HARAGA L., GOLDENBERG D.M. & HANSEN H.J. (1995). Development and evaluation of the specificity of a rat monoclonal anti-idiotypic antibody, WN, to an anti-B-cell lymphoma monoclonal antibody, LL2. *Cancer Res* **55(23 Suppl)**: 5978s-82s
- LUNDKVIST I., VAN DOORN P.A., VERMEULEN M. & BRAND A. (1993). Spontaneous recovery from the Guillain-Barré Syndrome is associated with anti-idiotypic antibodies recognizing a cross-reactive idiotypic on anti-neuroblastoma cell line antibodies. *Clin Immunol Immunopathol* **67(3)**: 192-8
- MACKENZIE C.R., HIRAMA T., LEE K.K., ALTMAN E. & YOUNG N.M. (1997). Quantitative analysis of bacterial toxin affinity and specificity for glycolipid receptors by surface plasmon resonance. *J Biol Chem* **272(9)**: 5533-8
- MARCHALONIS J.J., KAYMAZ H., DEDEOGLU F., SCHLUTER S.F., YOCUM D.E. & EDMUNDSON A.B. (1992). Human autoantibodies reactive with synthetic autoantigens from T-cell receptor beta chain. *Proc Natl Acad Sci USA* **89(8)**: 3325-9
- MARON R., ELIAS D., DE JONGH B.M., BRUINING G.J., VAN ROOD J.J., SHECHTER Y. & COHEN I.R. (1983). Autoantibodies to the insulin receptor in juvenile onset insulin-dependent diabetes. *Nat* **303(5920)**: 817-8
- MASSERINI M., FREIRE E., PALESTINI P., CALAPPI E. & TETTAMANTI G. (1992). Fuc-GM1 ganglioside mimics the receptor function of GM1 for cholera toxin. *Biochemistry* **31**: 2422-6



- MCINTYRE C.W., FLUCK R.J. & LAMBIE S.H. (2001). Steroid and cyclophosphamide therapy for IgA nephropathy associated with crescentic change: an effective treatment. *Clin Nephrol* **56**(3): 193-8
- MEEK K., JESKE D., SLAOUI M., LEO O., URBAIN J. & CAPRA J.D. (1984). Complete amino acid sequence of heavy chain variable regions derived from two monoclonal anti-p-azophenylarsonate antibodies of BALB/c mice expressing major cross-reactive idiotype of the A/J strain. *J Exp Med* **160**(4): 1070-86
- MENZE M.A., HELLMANN N., DECKER H. & GRIESHABER M.K. (2001). Binding of urate and caffeine to haemocyanin analysed by isothermal titration calorimetry. *J Exp Biol* **204**: 1033-8
- MERRITT E.A., SARFATY S., VAN DEN AKKER F., L'HOIR C., MARTIAL J.A. & HOL W.G. (1994). Crystal structure of cholera toxin B-pentamer bound to receptor GM1 pentasaccharide. *Prot Sci* **3**(2): 166-75
- MINNIKIN D.E. (1982). Lipids: complex lipids, their chemistry, biosynthesis and roles. New York, Academic Press
- MORAN A.P. (1997). Structure and conserved characteristics of *Campylobacter jejuni* lipopolysaccharides. *J Infect Dis* **176** (Suppl 2): S115-21
- MUNTHER L.A., KYTE J.A. & BOGEN B. (1999). Resting small B cells present endogenous immunoglobulin variable-region determinants to idiotope-specific CD4<sup>+</sup> T cells in vivo. *Eur J Immunol* **29**(12): 4043-52
- MUSTAFA A.S. (2002). Development of new vaccines and diagnostic reagents against tuberculosis. *Mol Immunol* **39**(1-2): 113-9
- NAKAJIMA H., KIYOKAWA N., KATAGIRI Y.U., TAGUCHI T., SUZUKI T., SEKINO T., MIMORI K., EBATA T., SAITO M., NAKAO H., TAKEDA T. & FUJIMOTO J. (2001). Kinetic analysis of binding between Shiga toxin and receptor glycolipid Gb3Cer by surface plasmon resonance. *J Biol Chem* **276**(46): 42915-22
- NAPARSTEK Y., DUGGAN D., SCHATTNER A., MADAIO M.P., GONI F., FRANGIONE B., STOLLAR B.D., KABAT E.A. & SCHWARTZ R.H. (1985). Immunochemical similarities between monoclonal antibacterial Waldenstrom's macroglobulins and monoclonal anti-DNA lupus autoantibodies. *J Exp Med* **161**(6): 1525-38
- NEISSER A., SCHWERER B., BERNHEIMER H. & MORAN A.P. (2000). Ganglioside-induced antiganglioside antibodies from a neuropathy patient cross-react with lipopolysaccharides of *Campylobacter jejuni* associated with Guillain-Barré syndrome. *J Neuroimmunol* **102**: 85-8
- NICE E.C. & CATIMEL B. (1999). Instrumental biosensors: new perspectives for the analysis of biomolecular interactions. *BioEssays* **21**(4): 339-52
- NIKOLELIS D.P., HIANIK T. & KRULL U.J. (1999). Biosensors based on thin lipid films and liposomes. *Electroanalysis* **11**(1): 7-15

- NUTMAN T.B., OTTESEN E.A., FAUCI A.S. & VOLKMAN D.J. (1984). Parasite antigen-specific human T cell lines and clones. Major histocompatibility complex restriction and B cell helper function. *J Clin Invest* **73**(6): 1754-62
- OLDSTONE M.B.A., SCHWIMMBECK P., DYRBERG T. & FUJINAMI R. (1986). Mimicry by virus of host molecules: implications for autoimmune disease. *Prog Immunol* **6**: 787-95
- OLSSON N.U. (1992). Advances in planar chromatography for the separation of food lipids. *J Chromatogr* **624**(1-2): 11-9
- OUCHTERLONY Ö. & HOLMGREN J. (1980). Cholera and related diarrheas : molecular aspects of a global health problem. New York, Karger
- LOUDIN J. & CAZENAVE P.A. (1971). Similar idiotypic specificities in immunoglobulin fractions with different antibody functions or even without detectable antibody function. *Proc Natl Acad Sci USA* **68**(10): 2616-20
- PAGE N., MURRAY N., PERRUISSEAU G. & STECK A.J. (1985). A monoclonal anti-idiotypic antibody against a human monoclonal IgM with specificity for myelin-associated glycoprotein. *J Immunol* **134**(5): 3094-9
- PAN J., FUJIWARA N., OKA S., MAEKURA R., OGURA T. & YANO I. (1999). Anti-cord factor (trehalose-6,6'-dimycolate) IgG antibody in tuberculosis patients recognizes mycolic acid subclasses. *Microbiol Immunol* **43**(9): 863-869
- PAPAROUNAS K., O'HANLON G., O'LEARY C.P., ROWAN E.G. & WILLISON H.J. (1999). Anti-ganglioside antibodies can bind peripheral nerve nodes of Ranvier and activate the complement cascade without inducing acute conduction block *in vitro*. *Brain* **122**: 807-16
- PASQUALI J.L., URLACHER A. & STORCK D. (1984). Idiotypic network: possible explanation of seronegativity in a patient with rheumatoid arthritis. *Clin Exp Immunol* **55**(2): 281-6
- PATHAK S.S. (1995). Antibody affinity and affinity distributions: determination in ELISA and biosensor. PhD. Immunology, Erasmus University Rotterdam, Rotterdam
- PERELSON A.S. (1989). Immune network theory. *Immunol Rev* **110**: 5-36
- PEREZ A., MIER E.S., VISPO N.S., VAZQUEZ A.M. & PEREZ RODRIGUEZ R. (2002a). A monoclonal antibody against NeuGc-containing gangliosides contains a regulatory idiotope involved in the interaction with B and T cells. *Mol Immunol* **39**(1-2): 103-12
- PEREZ C., GUARCH R., RODRIGO M., GALLEGO M. & ORMAZABAL O. (2002b). Successful treatment of leucocytoclastic vasculitis and pancytopenia secondary to systemic lupus erythematosus with intravenous immunoglobulin. *Br J Dermatol* **147**(1): 180-2
- PLOTZ P.H. (1983). Autoantibodies are anti-idiotype antibodies to antiviral antibodies. *Lancet* **2**(8354): 824-6
- PUU G. (2001). An approach for analysis of protein toxins based on thin films of lipid mixtures in an optical biosensor. *Anal Chem* **73**: 72-9

- QUÉMARD A., LANÉELE M.-A., MARRAKCHI H., PROMÉ D., DUBNAU E. & DAFFÉ M. (1997). Structure of a hydroxymycolic acid potentially involved in the synthesis of oxygenated mycolic acids of the *Mycobacterium tuberculosis* complex. *Eur J Biochem* **250**(3): 758-63
- RAMANATHAN K. & DANIELSSON B. (2001). Principles and applications of thermal biosensors. *Biosens Bioelectron* **16**(6): 417-23
- REDDY R.R., CHADHA A. & BHATTACHARYA E. (2001). Porous silicon based potentiometric triglyceride biosensor. *Biosens Bioelectron* **16**(4-5): 313-7
- ROBINSON W.E.J., MONTEFIORI D.C. & MITCHELL W.M. (1988). Will antibody-dependent enhancement of HIV-1 infection be a problem with AIDS vaccines? *Lancet* **1**(8589): 830-1
- RODKEY L.S. (1974). Studies of idiotypic antibodies. Production and characterization of autoantiidiotypic antisera. *J Exp Med* **139**(3): 712-20
- ROIIT I.M. & COOKE A. (1986). Idiotypes and autoimmunity. *Prog Immunol* **6**: 512-35
- ROOT-BERNSTEIN R.S. (1995). Preliminary evidence for idiotype-antiidiotype immune complexes cross-reactive with lymphocyte antigens in AIDS and lupus. *Med Hypotheses* **44**(1): 20-7
- ROSSI F., DIETRICH G. & KAZATCHKINE M.D. (1989). Anti-idiotypes against autoantibodies in normal immunoglobulins: evidence for network regulation of human autoimmune responses. *Immunol Rev* **110**: 135-49
- ROUDIER C., AUGER I. & ROUDIER J. (1996). Molecular mimicry reflected through database screening: serendipity or survival strategy? *Immunol Today* **17**(8): 357-8
- ROUX K.H. & METZGER D.W. (1982). Immunoelectron microscopic localization of idiotypes and allotypes on immunoglobulin molecules. *J Immunol* **129**(6): 2548-53
- RUBIO I., BUCKLE P., TRUTNAU H. & WETZKER R. (1997). Real-time assay of the interaction of a GST fusion protein with a protein ligate using a resonant mirror technique. *BioTechniques* **22**: 269-71
- SADIQ S.A., THOMAS F.P., KILIDIREAS K., PROTOPSALTIS S., HAYS A.P., LEE K.W., ROMAS S.N., KUMAR N., VAN DEN BERG L., SANTORO M. & AL. E. (1990). The spectrum of neurologic disease associated with anti-GM1 antibodies. *Neurology* **40**: 1067-72
- SCHLEICHER G.K., FELDMAN C., VERMAAK Y. & VERSCHOOR J.A. (2002). Prevalence of anti-mycolic acid antibodies in patients with pulmonary tuberculosis co-infected with HIV. *Clin Chem Lab Med* **40**(9): 882-7
- SCHNEIDER B.H., EDWARDS J.G. & HARTMAN N.F. (1997). Hartman interferometer: versatile integrated optic sensor for label-free, real-time quantification of nucleic acids, proteins, and pathogens. *Clin Chem* **43**(9): 1757-63
- SCHWARTZ R.S. (1986). Autoantibodies and normal antibodies. *Prog Immunol* **6**: 478-82

- SETO A. (1980). Cycling in the idiotypical proliferative response of peripheral blood lymphocytes in normal and *Salmonella typhi*-immunized rabbits. *Ann Immunol* **131C**(3): 289-309
- SHENG N., FAIRBANKS M.B., HEINRIKSON R.L., CANZIANI G., CHAIKEN I.M., MOSSER D.M., ZHANG H. & COLMAN R.W. (2000). Cleaved high molecular weight kininogen binds directly to the integrin CD11b/CD18 (Mac-1) and blocks adhesion to fibrinogen and ICAM-1. *Blood* **95**(12): 3788-95
- SIKO D.G.R. (1999). The effects of Mycobacterial mycolic acids on rodent tuberculosis and adjuvant arthritis. MSc. Department of Biochemistry, Faculty of Natural and Agricultural Sciences, University of Pretoria, Pretoria
- SIKO D.G.R. (2002). Mycobacterial mycolic acids as immunoregulatory lipid antigens in the resistance to tuberculosis. PhD. Department of Biochemistry, Faculty of Natural and Agricultural Sciences, University of Pretoria, Pretoria
- SIMONS K. & TOOMRE D. (2000). Lipid rafts and signal transduction. *Nat Rev Mol Cell Biol* **1**: 31-9
- SINGER A., MIZUOCHI T., MUNITZ T.I. & GRESS R.E. (1986). Role of self antigens in the selection of the developing T cell repertoire. *Prog Immunol* **6**: 60-6
- SIXMA T.K., PRONK S.E., KALK K.H., WARTNA E.S., VAN ZANTEN B.A., WITHOLT B. & HOL W.G. (1991). Crystal structure of a cholera toxin-related heat-labile enterotoxin from *E. coli*. *Nat* **351**(6325): 371-7
- SKIPSKI V.P. & BARCLAY M. (1969). Thin-layer chromatography of lipids. Methods Enzymol. LOWENSTEIN J.M. New York, Academic Press. **14**: 530-98
- SOMASUNDARAM R., ZALOUDIK J., JACOB L., BENDEN A., SPERLAGH M., HART E., MARKS G., KANE M., MASTRANGELO M. & HERLYN D. (1995). Induction of antigen-specific T and B cell immunity in colon carcinoma patients by anti-idiotypic antibody. *J Immunol* **155**(6): 3253-61
- SPARBIER K. & WALDEN P. (1999). T-cell receptor specificity and mimotopes. *Curr Opin Immunol* **11**(2): 214-8
- ST HILAIRE P.M., BOYD M.K. & TOONE E.J. (1994). Interaction of the Shiga-like toxin type 1 B-subunit with its carbohydrate receptor. *Biochemistry* **33**(48): 14452-63
- STANNARD L.M. (1996). The bacterial cell wall. University of Cape Town. <http://www.uct.ac.za/depts/mmi/lsteyn/cellwall.html>:  
<http://www.uct.ac.za/depts/mmi/lsteyn/cellwall.html>
- STEIN P.E., BOODHOO A., ARMSTRONG G.D., COCKLE S.A., KLEIN M.H. & READ R.J. (1994). The crystal structure of pertussis toxin. *Structure* **2**(1): 45-57
- STOLTZ A.D. (2002). Immunological properties of mycolic acids, the major lipid cell wall component of *Mycobacterium tuberculosis*. PhD. Department of Biochemistry, University of Pretoria, Pretoria

- STULNIG T.M., HUBER J., LEITINGER N., IMRE E.-M., ANGELISOVÁ P., NOWOTNY P. & WALDHÄUSL W. (2001). Polyunsaturated eicosapentanoic acid displaces proteins from membrane rafts by altering raft lipid composition. *J Biol Chem* **276**(40): 37335-40
- SULTAN Y., KAZATCHKINE M.D., MAISONNEUVE P. & NYDEGGER U.E. (1984). Anti-idiotypic suppression of autoantibodies to factor VIII (antihaemophilic factor) by high-dose intravenous gammaglobulin. *Lancet* **2**(8406): 765-8
- SÜSAL C., DANIEL V. & OPELZ G. (1996). Does AIDS emerge from a disequilibrium between two complementary groups of molecules that mimic MHC? *Immunol Today* **17**(3): 114-9
- SÜSAL C., KROPELIN M., DANIEL V. & OPELZ G. (1993). Molecular mimicry between HIV-1 and antigen receptor molecules: a clue to the pathogenesis of AIDS. *Vox Sang* **65**(1): 10-7
- SVENNERHOLM L., BOSTROM K., FREDMAN P., JUNGBJER B., LEKMAN A., MANSSON J.E. & RYNMARK B.M. (1994). Gangliosides and allied glycosphingolipids in human peripheral nerve and spinal cord. *Biochim Biophys Acta* **1214**: 115-23
- THANYANE S.T. (2003). A novel application of affinity biosensor technology to detect antibodies to mycolic acids in tuberculosis patients. MSc. Department of Biochemistry, Faculty of Natural and Agricultural Sciences, University of Pretoria, Pretoria
- THÉVENOT D.R., TOTH K., DURST R.A. & WILSON G.S. (2001). Electrochemical biosensors: recommended definitions and classification. *Biosens Bioelectron* **16**: 121-31
- THURMOND L.M., REESE M.J., DONALDSON R.J. & ORBAN B.S. (1998). A kinetic enzyme immunoassay for the quantitation of antibodies to a humanized monoclonal antibody in human serum. *J Pharm Biomed Anal* **16**(8): 1317-28
- TSUBOUCHI A., YOSHIOKA K. & KAKUMU S. (1985). Naturally occurring serum anti-idiotypic antibody against antiliver-specific membrane lipoprotein in patients with hepatitis. *Hepatology* **5**(5): 752-7
- VAN DER MECHÉ F.G.A., VISSER L.H., JACOBS B.C., ENDTZ H.P., MEULSTEE J. & VAN DOORN P.A. (1997). Guillain-Barré syndrome: multifactorial mechanisms versus defined subgroups. *J Infect Dis* **176** (Suppl 2): S99-102
- VAN KONINGSVELD R., VAN DOORN P.A., SCHMITZ P.I.M., ANG C.W. & VAN DER MECHÉ F.G.A. (2000). Mild forms of Guillain-Barré syndrome in an epidemiologic survey in The Netherlands. *Neurology* **54**: 620-5
- VAN LOGHEM E. & BIEWENGA J. (1983). Allotypic and isotypic aspects of human immunoglobulin A. *Mol Immunol* **20**(9): 1001-7
- VAN REGENMORTEL M.H.V. (1998). From absolute to exquisite specificity. Reflections on the fuzzy nature of species, specificity and antigenic sites. *J Immunol Methods* **216**: 37-48

- VARELA F., ANDERSSON A., DIETRICH G., SUNDBLAD A., HOLMBERG D., KAZATCHKINE M.D. & COUTINHO A. (1991). Population dynamics of natural antibodies in normal and autoimmune individuals. *Proc Natl Acad Sci USA* **88**(13): 5917-21
- WATANABE M., AOYAGI Y., RIDELL M. & MINNIKIN D.E. (2001). Separation and characterization of individual mycolic acids in representative mycobacteria. *Microbiology* **147**: 1825-37
- WILLISON H.J., O'HANLON G., PATERSON G., O'LEARY C.P., VEITCH J., WILSON G.S., ROBERTS M., TANG T. & VINCENT A. (1997). Mechanisms of action of anti-GM<sub>1</sub> and anti-GQ<sub>1b</sub> ganglioside antibodies in Guillain-Barré syndrome. *J Infect Dis* **176** (Suppl 2): S144-9
- WILSON R. & SARGENT J.R. (2001). Chain separation of monounsaturated fatty acid methyl esters by argentation thin-layer chromatography. *J Chromatogr A* **905**(1-2): 251-7
- WINER J.B., HUGHES R.A.C., ANDERSON M.J., JONES D.M., KANGRO H. & WATKINS R.P.F. (1988). A prospective study of acute idiopathic neuropathy. II. Antecedent events. *J Neurol* **51**: 613-8
- WOLFE G.I., BAROHN R.J., FOSTER B.M., JACKSON C.E., KISSEL J.T., DAY J.W., THORNTON C.A., NATIONS S.P., BRYAN W.W., AMATO A.A., FREIMER M.L. & PARRY G.J. (2002). Randomized, controlled trial of intravenous immunoglobulin in myasthenia gravis. *Muscle Nerve* **26**(4): 549-52
- WUILMART C., WIKLER M. & URBAIN J. (1979). Induction of autoanti-idiotypic antibodies and effects on the subsequent immune response. *Mol Immunol* **16**(12): 1085-92
- YU F.Y. & CHU F.S. (1999). Production and characterization of a monoclonal anti-anti-idiotypic antibody against fumonisin B(1). *J Agric Food Chem* **47**(11): 4815-20
- YUAN Y., CRANE D.C., MUSSER J.M., SREEVATSAN S. & BARRY C.E. (1997). MMAS-1, the branch point between *cis*- and *trans*-cyclopropane-containing oxygenated mycolates in *Mycobacterium tuberculosis*. *Biol Chem* **272**: 10041-10049
- YUAN Y., LEE R.E., BESRA G.S., BELISLE J.T. & BARRY III C.E. (1995). Identification of a gene involved in the biosynthesis of cyclopropanated mycolic acids in *Mycobacterium tuberculosis*. *Proc Natl Acad Sci USA* **92**: 6630-4
- YUKI N., ANG C.W., KOGA M., JACOBS B.C., VAN DOORN P.A., HIRATA K. & VAN DER MECHÉ F.G.A. (2000). Clinical features and response to treatment in Guillain-Barré syndrome associated with antibodies to GM1b ganglioside. *Ann Neurol* **47**: 214-21
- ZHANG R.-G., SCOTT D.L., WESTBROOK M.L., NANCE S., SPANGLER B.D., SHIPLEY G.G. & WESTBROOK E.M. (1995). The three-dimensional crystal structure of cholera toxin. *J Mol Biol* **251**: 563-73
- ZHANG W., FRANK M.B. & REICHLIN M. (2002). Production and characterization of human monoclonal anti-idiotypic antibodies to anti-dsDNA antibodies. *Lupus* **11**(6): 362-9
- ZOUALI M. & EYQUEM A. (1983). Expression of anti-idiotypic clones against auto-anti-DNA antibodies in normal individuals. *Cell Immunol* **76**(1): 137-47