

References:

1. Braun J, Bollow M, Remlinger G, Eggens U, Rudwaleit M, Distler A, Sieper J. Prevalence of spondylarthropathies in HLA B27-positive and –negative blood donors. *Arthritis Rheum.*, 1998; 41:58-67
2. Zink A, Braun J, Listing A, Wollenhaupt J, and the German Collaborative Research Centers. Disability and handicap in rheumatoid arthritis and ankylosing spondylitis-results of the German rheumatological database. *J Rheumatol.*, 2000; 27:613-622
3. Brandt J, Bollow M, Häberle HJ, Sieper J, Braun J. Not all patients with sacroiliitis have spondyloarthropathy- a clinical study of inflammatory back pain and arthritis of the lower limbs. *Rheumatol.*, 1999; 38:831-836
4. Sieper J, Braun J. Pathogenesis of Spondylarthropathies. *Arthritis Rheum.*, 1995; 38:1547-1554
5. Hermann E, Sucke B, Droste U, Meyer zum Buschenfelde KH. Klebsiella pneumoniae-reactive T cells in blood and synovial fluid of patients with ankylosing spondylitis. Comparison with HLA-B27+ healthy control subjects in a limiting dilution study and determination of the specificity of synovial fluid T cell clones. *Arthritis Rheum.*, 1995; 38:1277-82
6. Mikecz K, Glant TT, Poole AR. Immunity to cartilage proteoglycans in BALB/c mice with progressive polyarthritis and ankylosing spondylitis induced by injection of human cartilage proteoglycan. *Arthritis Rheum.*, 1987; 30:306-18
7. Khan MA(ed). *Ankylosing spondylitis and related spondyloarthropathies. Spine: State of the Art Reviews*, Philadelphia: Hanley & Belfus, 1990
8. Rosenbaum JT. Acute anterior uveitis and spondyloarthropathies. *Rheum Dis Clin North Am.*, 1992; 18:143-51
9. Khan MA, van der Linden SM. Ankylosing spondylitis and associated diseases. *Rheum Dis Clin North Am.*, 1990; 16:551-79
10. Gran JT, Husby G, Hordvik M. Prevalence of ankylosing spondylitis in males and females in a young middle-aged population in Tromsø, Northern Norway.

- Ann Rheum Dis., 1985; 44:359-67
11. Carette S, Graham D, Little H, Rubenstein J, Rosen P. The natural disease course of ankylosing spondylitis. *Arthritis Rheum.*, 1983; 26:186-90
 12. Kankonkar SR, Raikar SC, Joshi SV, Tijoriwala SJ. Association of HLA-B27 antigen in Indian patients of ankylosing spondylitis and other autoimmune diseases. *J Assoc Physicians India.*, 1998; 46:345-50
 13. Gofton JP. Epidemiology, tissue type antigens and Bechterew's syndrome (ankylosing spondylitis) in various ethnical populations. *Scand J Rheumatol.*, 1980(suppl); 32:166-8
 14. Khan MA. HLA and ankylosing spondylitis. In: *Ankylosing spondylitis. New clinical applications. Rheumatology.* Calabro JJ, Carson Dick W, eds. England: MTP; 1987: 23-44
 15. Masi AT, Medsger TA. A new look at the epidemiology of ankylosing spondylitis and related syndromes. *Clin Orthoped Rel Res.*, 1979; 143:15-29
 16. Choo SY, Antonelli P, Nisperos B, Nepom GT, Hansen JA. Six variants of HLA-B27 identified by isoelectric focusing. *Immunogenetics*, 1986; 23:24-9
 17. Breur-Vriesendorp BS, Dekker-Saeys AJ, Ivanyi P. Distribution of HLA-B27 molecules. *Ann Rheum Dis.*, 1987; 46:353-6
 18. Hill AVS, Allsopp CEM, Kwaitkowski D, Anstey NM, Greenwood BM, McMichael AJ. HLA-class I typing PCR: HLA-B27 and an African B27 subtype. *Lancet*, 1991; 337:640-2
 19. Ahearn JM, Hochberg MC. Epidemiology and genetics of ankylosing spondylitis. *J Rheumatol.*, 1988; 15(suppl 16):22-8
 20. Hammer RE, Maika SD, Richardson JA, Tang JP, Taurog JD. Spontaneous inflammatory disease in transgenic rats expressing HLA-B27 and human $\alpha 2m$: an animal model of HLA-B27 associated human disorders. *Cell.* 1990; 63:1099-112
 21. Kvien TK, Glennas A, Melby K, Overbo A, Andrup O, Karstensen B, Thoen JE. Reactive arthritis: Incidence, triggering agents and clinical presentation.

- Journal of Rheumatology, 1994; 21:115-22
22. Sieper J, Kingsley GH, Märker-Hermann E. Aetiological agents and immune mechanisms in enterogenic reactive arthritis. *Enterogenic Reactive Arthritis*, 1996; 10:105-21
 23. Ogasawara M, Kono DH, Yu DT. Mimicry of human histocompatibility HLA-B27 antigens by *Klebsiella pneumoniae*. *Infect Immun.*, 1986; 51:901-8
 24. Chen JH, Kono DH, Yong Z, Park MS, Oldstone MM, Yu DT. A *Yersinia pseudotuberculosis* protein which cross-reacts with HLA-B27. *J Immunol.*, 1987; 139:3003-11
 25. Schwimmbeck PL, Yu DT, Oldstone MB. Autoantibodies to HLA-B27 patients with ankylosing spondylitis and Reiter's syndrome. Molecular mimicry with *Klebsiella pneumoniae* as potential as potential mechanism of autoimmune disease. *J Exp Med.*, 1987; 166:173-81
 26. Yu DT, Choo SY, Schaack T. Molecular mimicry in HLA-B27-related arthritis. *Ann Intern Med.*, 1989, 111:581-91
 27. Taurog JD, Maika SD, Satumtira N, Dorris ML, McLean IL, Yanagisawa H, Sayad A, Stagg AJ, Fox GM, Le O'Brien A, Rehman M, Zhou M, Weiner AL, Splawski JB, Richardson JA, Hammer RE. Inflammatory disease in HLA-B27 transgenic rats. *Immunol Rev.*, 1999; 169:209-23
 28. van der Linden SM, Valkenburg HA, de Jongh BM, Cats A. The risk of developing ankylosing spondylitis in HLA-B27 positive individuals. A comparison of relatives of spondylitis patients with the general population. *Arthritis Rheum.*, 1984; 27:241-9
 29. Healy F, Toubert A, Gomard E, Jordan BR, Levy JP. Delineation of determinants on HLA-B7 and HLA-B27 that are necessary for cytolytic T cell recognition by using inter- and intra-domain recombinants. *J Immunol.*, 1989; 143:2357-63
 30. Bragado R, Lauzrica P, Lopez D, Lopez de Castro JA. T cell receptor V β gene usage in a human alloreactive response. Shared structural features among HLA-B27 specific T cell clones. *J Exp Med.*, 1990; 171:1189-1240

31. Beck S, Trowsdale J. Sequence organisation of the class II region of the human MHC. *Immunol Rev.*, 1999; 167:201-10
32. Brown MA, Pile KD, Kennedy LG, Campbell D, Andrew L, March R, Shatford JL, Weeks DE, Calin A, Wordsworth BP. A genome-wide screen for susceptibility loci in ankylosing spondylitis. *Arthritis Rheum.*, 1998; 41:588-95
33. Brown MA, Kennedy LG, Darke C, Gibson K, Pile KD, Shatford JL, Taylor A, Calin A, Wordsworth BP. The effect of HLA-DR genes on susceptibility to and severity of ankylosing spondylitis. *Arthritis Rheum.*, 1998; 41:460-5
34. Beyaert R, Fiers W. Tumor necrosis factor and lymphotoxin. In Mire-Sluis AR, Thorpe R, editors. *Cytokines*. San Diego: Academic Press, 1998, 335-60
35. Verweij CL, Huizinga TWJ. Tumor necrosis factor alpha gene polymorphisms and rheumatic diseases. *Br J Rheumatol.*, 1998; 37:923-9
36. Rudwaleit M, Siegert S, Yin Z, Eick J, Thiel A, Radbruch A, Sieper J, Braun J. Low T cell production of TNFalpha and IFNgamma in ankylosing spondylitis: its relation to HLA-B27 and influence of the TNF-308 gene polymorphism. *Ann Rheum Dis.*, 2001; 60:36-42
37. Sadasivan B, Lehner PJ, Ortmann B, Spies T, Cresswell P. Roles for calreticulin and a novel glycoprotein, tapasin, in the interaction of MHC class I molecules with TAP. *Immunity*, 1996; 5:103-14
38. Peh CA, Burrows SR, Barnden M, Khanna R, Cresswell P, Moss DJ, McCluskey J. HLA-B27-restricted antigen presentation in the absence of tapasin reveals polymorphism in mechanisms of HLA class I peptide loading. *Immunity*, 1998; 8:531-42
39. Arend WP, Dager JM. Cytokines and cytokine inhibitors or antagonists in rheumatoid arthritis. *Arthritis Rheum.*, 1990; 33:305-15
40. Yin Z, Braun J, Neure L, Wu P, Liu L, Eggens U, Sieper J. Crucial role of interleukin-10/interleukin-12 balance in the regulation of the type 2 T helper cytokine response in reactive arthritis. *Arthritis Rheum.*, 1997; 40:1788-97

41. Lubberts E, Joosten LA, Oppers B, van den Bersselaar L, Coenen-de Roo CJ, Kolls JK, Schwarzenberger P, van de Loo FA, van den Berg WB. IL-1-independent role of IL-17 in synovial inflammation and joint destruction during collagen-induced arthritis. *J Immunol.*, 2001; 167:1004-13
42. Benjamin RJ, Parham P. Guilt by association: HLA-B27 and ankylosing spondylitis. *Immunol Today*, 1997; 11:137-42
43. Calabrese LH. The rheumatic manifestations of infection with the human immunodeficiency virus. *Sem Arthritis Rheum.*, 1989; 18:225-39
44. Mikecz K, Glant TT, Baron M and Poole AR. Isolation of proteoglycan-specific T lymphocytes from patients with ankylosing spondylitis. *Cell Immunol.*, 1988; 112:55-63
45. Mikecz K, Glant TT, Buzas E and Poole AR. Proteoglycan-induced polyarthritis and spondylitis adoptively transferred to naive (nonimmunized) BALB/c mice. *Arthritis & Rheum.*, 1990; 33:866-76
46. Breedveld FC. Monoclonal antibodies to CD4. *Rheum Dis Clin North Am* 1998;24:567-78
47. Schulze-Koops H, Davis LS, Haverty TP, Wacholtz MC, Lipsky PE. Reduction of Th1 cell activity in the peripheral circulation of patients with rheumatoid arthritis after treatment with a non-depleting humanized monoclonal antibody to CD4. *J Rheumatol.*, 1998;25:2065-76
48. Banerjee S, Webber C and Poole AR. The induction of arthritis in mice by the cartilage proteoglycan aggrecan: role of CD4+ and CD8+ T cells. *Cell Immunol.*, 1992; 144:347-357
49. Feldmann M, Brennan FM, Maini RN. Role of cytokines in rheumatoid arthritis. *Ann Rev Immunol*, 1996; 14:397-440
50. Buchan G, Barrett K, Turner M, Chantry D, Maini RN, Feldmann M. Interleukin 1 and tumour necrosis factor mRNA expression in rheumatoid arthritis: prolonged production of IL1 α . *Clin.Exp.Immunol.*, 1988; 73:449-55
51. Wood NC, Dickens E, Symons JA, Duff GW. In situ hybridization of

- interleukin1 in CD14 positive cells in rheumatoid arthritis. Clin.Immunol.Immunopathol., 1992; 62:295-300
52. McInnes IB, Liew FY. Interleukin 15: a proinflammatory role in rheumatoid arthritis synovitis. Immunol Today, 1998; 19:75-9
 53. Taga K, Cherney B, Tosato G. IL10 inhibits apoptotic cell death in human T cells starved of IL2. Int.Immunol., 1993; 5:1599-1608
 54. Elenkov IJ, Chrousos GP, Wilder RL. Neuroendocrine regulation of IL-12 and TNF-alpha/IL-10 balance. Clinical implications. Ann N Y Acad Sci., 2000; 917:94-105
 55. Keffer J, Probert L, Cazlaris H, Georgopoulos S, Kaslaris E, Kioussis D, Kollias G. Transgenic mice expressing human tumour necrosis factor: a predictive genetic model of arthritis. EMBO J, 1991; 10:4025-31
 56. Butler DM, Malfait AM, Mason LJ, Warden PJ, Kollias G, Maini RN, Feldmann M, Brennan FM. DBA/1 mice expressing the human TNF-alpha transgene develop a severe, erosive arthritis: characterization of the cytokine cascade and cellular composition. J Immunol, 1997; 159:2867-76
 57. Williams RO, Feldmann M, Maini RN. Anti-tumor necrosis factor ameliorates joint disease in murine collagen-induced arthritis. Proc Natl Acad Sci USA, 1992; 89:9784-8
 58. Poli V, Balena R, Fattori E, Markatos A, Yamamoto M, Tanaka H, Ciliberto G, Rodan GA, Constantini F. Interleukin 6 deficient mice are protected from bone loss caused by estrogen depletion. Embo J, 1994; 13:1189-96
 59. Kotake S, Sato K, Kim KJ, Takahashi N, Udagawa N, Nakamura I, Yamaguchi A, Kishimoto T, Suda T, Kashiwazaki S. Interleukin-6 and soluble interleukin-6 receptors in the synovial fluids from rheumatoid arthritis patients are responsible for osteoclast-like cell formation. J Bone Miner Res., 1996; 11:88-95
 60. Kaufmann SH. Immunity to intracellular bacteria. Annu. Rev.Immunol., 1993; 11:129-63

61. Ghivizzani SC, Kang R, Georgescu HI, Lechman ER, Jaffurs D, Engle JM. Constitutive intra-articular expression of human IL1 α following gene transfer to rabbit synovium produces all major pathologies of human rheumatoid arthritis. *J Immunol.*, 1997; 159:3604-12
62. Bridoux F, Badou A, Saoudi A, Bernard I, Druet E, Pasquier B, Druet P, Pelletier L. Transforming growth factor (TGF-)-dependent inhibition of T helper cell 2 (Th2)-induced autoimmunity by self-major histocompatibility complex (MHC) class II-specific, regulatory CD4 T cell lines. *J.Exp.Med.*, 1997; 185:1769-75
63. Groux H, O'Garra A, Bigler M, Rouleau M, Antonenko S, de Vries E de, Roncarolo MG. A CD4 T-cell subset inhibits antigen-specific T-cell responses and prevents colitis. *Nature*, 1997 ; 389:737 42
64. Simon AK, Seipelt E, Sieper J. Divergent T-cell cytokine patterns in inflammatory arthritis. *Proc Natl Acad Sci USA*, 1994 ; 91:8562-6
65. Canete JD, Martinez SE, Farres J, Sanmarti R, Blay M, Gomez A, Salvador G, Munoz-Gomez J. Differential Th1/Th2 cytokine patterns in chronic arthritis: interferon gamma is highly expressed in synovium of rheumatoid arthritis compared with seronegative spondyloarthropathies. *Ann Rheum Dis.*, 2000; 59:263-8
66. Poole AR: Immunology of cartilage. In: Moskowitz, RW, Howell DS, Goldberg VM, Mankin HJ, eds. *Osteoarthritis: Diagnosis and Medical/Surgical Management*. 2nd ed. Philadelphia: WB Saunders, 1992: 155-89
67. Mikeecz K, Glant TT, Buzas E, Poole AR: Cartilage proteoglycans as potential autoantigens in humans and in experimental animals. *Agents Actions*, 1988; 23:63-6
68. Van Eden W, Holoshitz J, Cohen I: Antigenic mimicry between mycobacteria and cartilage proteoglycans: The model of adjuvant arthritis. *Concepts Immunopathol*, 1987; 4:144-70
69. Poole AR, Mathai L, Buzas E, Dayer E: Autoimmunity to cartilage proteoglycans in human and animal inflammatory joint disease. In: Lewis AJ,

- Doherty NS, Ackerman VR, eds. Therapeutic Approaches to Inflammatory Diseases. Amsterdam: Elsevier, 1989: 76-83
70. Courtenay JS, Dallman MJ, Dayan AD, Martin A, Mosedale I: immunization against heterologous type II collagen induces arthritis in mice. *Nature*, 1980; 283:666-8
71. Cathcart ES, Hayes KC, Gonnerman NA, Lazzari WA, Franzblau C: Experimental arthritis in a nonhuman primate. I. Induction by bovine type II collagen. *Lab Invest.*, 1986; 54:26-31
72. Stuart JM, Postlethwaite AE, Townes AS, Kang AH: Cell mediated immunity to collagen and collagen a chains in rheumatoid arthritis and other rheumatic diseases. *Am J Med.*, 1980; 69:13-8
73. Stuart JM, Huffstutter EH, Townes AS, Kang AH: Incidence and specificity of antibodies to types I, II, III, IV and V collagen in rheumatoid arthritis and other rheumatic diseases as measured by ¹²⁵I-radioimmunoassay. *Arthritis Rheum.*, 1983; 26:832-40
74. Banerjee S, Luthra HS, Moore SB, O'Fallon WM. Serum IgG anti-native type II collagen antibodies in rheumatoid arthritis: association with HLA DR4 and lack of clinical correlation. *Clin Exp Rheumatol.*, 1988; 6:373-80
75. Elkayam O, Zinger H, Zisman E, Segal R, Taron M, Brautbar C, Moses E. Regulatory T cell activity specific to human type II and III collagens in rheumatoid arthritis. *J Rheumatol.*, 1991; 18:510-21
76. Khare SD, Kreo CJ, Griffiths MM, Luthra HS, David CS. Oral administration of an immunodominant human collagen peptide modulates collagen-induced arthritis. *J Immunol.*, 1995; 155:3653-9
77. Poole AR: Cartilage in health and disease. Ed 12 McCarty DJ Koopman W eds. *Arthritis and Allied Conditions: A Textbook of Rheumatology*, 1993; 279-333 lea & Febiger, Philadelphia
78. Doege KJ, Sasaki M, Kimura T, Yamada Y: Complete coding sequence and deduced primary structure of the human cartilage large aggregating proteoglycan aggrecan: Human-specific repeats, and additional alternatively

- spliced forms. *J Biol Chem.*, 1991; 266:894-902
79. Baldwin CT, Reginato AM, Prockop DJ: A new epidermal growth factor-like domain in the human core protein for the large cartilage-specific proteoglycan: Evidence for alternative splicing of the domain. *J Biol Chem.*, 1989; 264:15747-50
 80. Yoo JU, Kresina TF, Malemud CJ, Goldberg VM. Epitopes of proteoglycans eliciting an anti-proteoglycan response in chronic immune synovitis. *Proc Natl Acad Sci USA*, 1987; 84:832-6
 81. Glant T, Csongar J, Szucs T: Immunopathologic role of proteoglycan antigens in rheumatoid joint disease. *Scand J Immunol.*, 1980; 11:247-252
 82. Zhang Y, Guerassimov A, Leroux JY, Cartman A, Webber C, Lalic R, de Miguel E, Rosenberg LC, Poole AR. Arthritis induced by proteoglycan aggrecan G1 domain in BALB/c mice. Evidence for t cell involvement and the immunosuppressive influence of keratan sulfate on recognition of t and b cell epitopes. *J Clin Invest.*, 1998; 101:1678-86
 83. Poole AR. The histopathology of ankylosing spondylitis: are there unifying hypotheses? *Am J Med Sci.*, 1998; 316:228-33
 84. Guerassimov A, Zhang Y, Banerjee S, Cartman A, Webber C, Esdaile J, Poole AR. Autoimmunity to cartilage link protein in patients with rheumatoid arthritis and ankylosing spondylitis. *J Rheumatol.*, 1998; 25:1480-4
 85. Nyirkos P, Golds EE. Human synovial cells secrete a 39 kDa protein similar to a bovine mammary protein expressed during the non-lactating period. *Biochem J.*, 1990; 269:265-8
 86. Hakala BE, White C, Recklies AD. Human cartilage gp-39, a major secretory product of articular chondrocytes and synovial cells, is a mammalian member of a chitinase protein family. *J Biol Chem.*, 1993; 268:25803-10
 87. Johansen JS, Jensen HS, Price PA. A new biochemical marker for joint injury, analysis of YKL-40 in serum and synovial fluid. *Br J Rheumatol.*, 1993; 32:949-55

88. Paul AG, Van Der Zee R, Taams LS, Van Eden W. A self-hsp60 peptide acts as a partial agonist inducing expression of B7-2 on mycobacterial hsp60-specific T cells: a possible mechanism for inhibitory T cell regulation of adjuvant arthritis. *Int Immunol.*, 2000; 12:1044-50
89. Gaston JS. Heat shock proteins as potential targets in the therapy of inflammatory arthritis. *Biotherapy*, 1998; 10:197-203
90. Van der Zee R, Anderton SM, Prakken AB, Liesbeth Paul AG, Van Eden W. T cell responses to conserved bacterial heat-shock-protein epitopes induce resistance in experimental autoimmunity. *Semin Immunol.*, 1998; 10:35-41
91. Francis JN, Lamont AG, Thompson SJ. The route of administration of an immunodominant peptide derived from heat-shock protein 65 dramatically affects disease outcome in pristane-induced arthritis. *Immunology*, 2000; 99:338-44
92. Wendling U, Paul L, van Der Zee R, Prakken B, Singh M and van Eden W. A conserved mycobacterial heat shock protein(hsp) 70 sequence prevents adjuvant arthritis upon nasal administration and induces IL10-producing T cells that cross-react with the mammalian self-hsp 70 homologue. *J. Immunology*, 2000; 164:2711-7
93. van Eden W., van der Zee R, Anderton S, Paul AGA, Prakken BJ, Wendling U, Anderton SM, Wauben MHM. Do heat shock proteins control the balance of T-cell regulation in inflammatory diseases?. *Immunol. Today*, 1998; 19:303-7
94. Ragno S, Winrow VR, Mascagni P, Lucietto P, Di Pierro F, Morris CJ, Blake DR. A synthetic 10-kD heat shock protein (hsp10) from *Mycobacterium tuberculosis* modulates adjuvant arthritis. *Clin. Exp. Immunol.*, 1996;103:384-90
95. Schultz H, Csernok E, Nikkari S, Toivanen P, Toivanen A, Gross WL. BPI-ANCA is found in reactive arthritis caused by *Yersinia* and *salmonella* infection and recognise exclusively the C-terminal part of the BPI molecule. *Scand J Rheumatol.*, 2000; 29:226-31
96. Iannone F, Lapadula G. Enterobacterial antibodies in patients with ankylosing

- spondylitis from southern Italy. *Clin Exp Rheumatol.*, 1999; 17:752-4
97. Gaston JS, Cox C, Granfors K. Clinical and experimental evidence for persistent yersinia infection in reactive arthritis. *Arthritis Rheum.*, 1999; 42:2239-42
 98. Witkowska d. Molecular mimicry of bacteria as a factor in bacterial pathogenicity. *Postepy Hig Med Dosw.*, 1999; 53:545-59
 99. Appel H, Mertz A, Distler A, Sieper J, Braun J. The 19kDa protein of *Yersinia enterocolitica* O:3 is recognized on the cellular and humoral level by patients with *Yersinia* induced reactive arthritis. *J Rheumatol.*, 1999; 26:1964 71
 100. Keat. Reiter's syndrome and reactive arthritis in perspective. *N Eng J Med.*, 1983; 309:1606-15
 101. Walden P. T-cell epitope determination. *Curr Opin Immunol*, 1996; 8:68-74
 102. Pinilla C, Martin R, Gran B, Appel JR, Boggiano C, Wilson DB, Houghten RA. Exploring immunological specificity using synthetic peptide combinatorial libraries. *Curr Opin Immunol*, 1999; 11:193-202
 103. Kramer A, Schneider-Mergener J. Synthesis and screening of peptide libraries on continuous cellulose membrane supports. *Methods Mol Biol.*, 1998; 87:25-39
 104. Rammensee HG, Falk K, Rotzschke O. Peptides naturally presented by MHC class I molecules. *Annu Rev Immunol.*, 1993;11:213-44
 105. Sinigaglia F, Hammer J. Defining rules for the peptide-MHC class II interaction. *Curr Opin Immunol.*, 1994; 6:52-6
 106. Thiel A, Wu P, Lauster R, Braun J, Radbruch A, Sieper J. Analysis of the antigen-specific T cell response in reactive arthritis by flow cytometry. *Arthritis Rheum.*, 2000; 43:2834-42
 107. Thiel A, Radbruch A. Antigen-specific cytometry. *Arthritis Res* 1999;1:25-9
 108. van der Linden S, Valkenburg HA, Cats A. Evaluation of diagnostic criteria for ankylosing spondylitis. A proposal for modification of the New York criteria.

- Arthritis Rheum. 1984; 27:361-8
109. Arnett FC, Edworthy SM, Bloch DA, McShane DJ, Fries JF, Cooper NS, Cooper NS, Healey LA, Kaplan SR, Liang MH, Luthra HS, et al.. The American Rheumatism Association 1987 revised criteria for the classification of rheumatoid arthritis. *Arthritis Rheum.*, 1988; 31:315-24
 110. Mertz AKH, Ugrinovic S, Lauster R, Wu P, Böttcher U, Appel H, Yin Z, Schiltz E, Batsford S, Schauer-Petrowski C, Braun J, Distler A, Sieper J. Characterization of the synovial T cell response to various recombinant *Yersinia* antigens in *Yersinia*-triggered reactive arthritis: the hsp60 drive a major immune response. *Arthritis Rheum.*, 1998; 41:315-26
 111. Verheijden GFM, Rijnders AWM, Bos E, Coenen-de Roo CJJ, van Staveren CJ, Miltenburg AMM, Meijerink JH, Elewaut D, DE Keyser F, Veys E, Boots AMH. Human cartilage glycoprotein-39 as a candidate autoantigen in rheumatoid arthritis. *Arthritis Rheum.*, 1997; 40:1115-25
 112. Jung G, Beck-Sickinger AG. Multiple peptide synthesis methods and their applications. *Angew Chem Int Ed Engl.*, 1992; 31:367-83
 113. Manz R, Assenmacher M, Pfluger E, Miltenyi S, Radbruch A. Analysis and sorting of live cells according to secreted molecules, relocated to a cell-surface affinity matrix. *Proc Natl Acad Sci U S A.* 1995; 92:1921-5
 114. Bollow M, Fischer T, Reishauer H, Backhaus M, Sieper J, Hamm B, Hamm B, Braun J. Quantitative analysis of sacroiliac biopsies in spondyloarthropathies: T cells and macrophages predominate in early and active sacroiliitis-cellularity correlates with the degree of enhancement detected by magnetic resonance imaging. *Ann Rheum Dis.*, 2000; 59:135-40
 115. Duchmann R, Lambert C, May E, Hohler T, Marker-Hermann E. CD4+ and CD8+ clonal T cell expansions indicate a role of antigens in ankylosing spondylitis; a study in HLA-B27+ monozygotic twins. *Clin Exp Immunol.*, 2001; 123:315-22
 116. Marker-Hermann E, Meyer zum Buschenfelde KH, Wildner G. HLA-B27-derived peptides as autoantigens for T lymphocytes in ankylosing spondylitis.

- Arthritis Rheum., 1997; 40:2047-54
117. Radbruch A (Ed): Flow cytometry and cell sorting. 2nd Edition, Springer, Berlin 2000
118. Sieper J, Braun J. Pathogenesis of Spondylarthropathies. Arthritis Rheum 1995; 38:1547-54
119. Van Eden W, and Young D.B. 1996. Stress Proteins in Medicine. Marcel Dekker, Inc., New York/Basel/Hong Kong
120. Granel B, Swiader L, Serratrice J, Disdier P, Weiller PJ. Heat shock proteins or "stress proteins". Rev Med Interne, 2000; 21:421-7
121. van Eden W, van der Zee R, Paul AG, Prakken BJ, Wendling U, Anderton SM, Wauben MH. Do heat shock proteins control the balance of T-cell regulation in inflammatory diseases? Immunol Today, 1998; 19:303-7
122. Aragona P, Magazzu G, Macchia G, Bartolone S, Di Pasquale G, Vitali C, Ferreri G. Presence of antibodies against helicobacter pylori and its heat-shock protein 60 in the serum of patients with Sjogren's syndrome. J Rheumatol., 1999; 26:1306-11
123. van Eden W., van der Zee R, Anderton S, Paul AGA, Prakken BJ, Wendling U, Anderton SM, Wauben MHM. Do heat shock proteins control the balance of T-cell regulation in inflammatory diseases?. Immunol. Today, 1998; 19:303-7
124. Haque MA, Yoshino S, Inada S, Nomaguchi H, Tokunaga O, Kohashi O. Suppression of adjuvant arthritis in rats by induction of oral tolerance to mycobacterial 65-kDa heat shock protein. Eur. J. Immunol., 1996; 26:2656
125. Rago S, Colston MJ, Lowrie DB, Winrow VR, Blake DR, Tascon R. Protection of rats from adjuvant arthritis by immunisation with naked DNA encoding for mycobacterial heat shock protein 65. Arthritis Rheum., 1997; 40:277-83
126. Prakken AB, van Eden W, Rijkers GT, Kuis W, Toebes EA, de Graeff-Meeder ER, van der Zee R, Zegers BJ. Autoreactivity to human heat-shock protein 60 predicts disease remission in oligoarticular juvenile rheumatoid arthritis.

- Arthritis Rheum., 1996; 39:1826-32
127. Afek A, George J, Gilburd B, Rauova L, Goldberg I, Kopolovic J, Harats D, Shoenfeld Y. Immunization of low-density lipoprotein receptor deficient (LDL-RD) mice with heat shock protein 65 (HSP-65) promotes early atherosclerosis. *J Autoimmun.*, 2000;14:115-21
 128. Macht LM, Elson CJ, Kirwan JR, Gaston JSH, Lamont AG, Thompson JM, Thompson SJ. Relationship between disease severity and responses by blood mononuclear cells from patients with rheumatoid arthritis to human heat shock protein 60. *Immunology*, 2000; 99:208-14
 129. Albert LJ, Inman RD. Molecular mimicry and autoimmunity. *N Engl J Med.*, 1999; 341:2068-74
 130. Granfors K, Jalkanen S, von Essen R, Lahesmaa-Rantala R, Isomaki O, Pekkola-Heino K, Merilahti-Palo R, Saario R, Isomaki H, Toivanen A. Yersinia antigens in synovial-fluid cells from patients with reactive arthritis. *N Engl J Med.*, 1989; 320:216-21
 131. Verheijden GF, Rijnders AW, Bos E, Coenen-de Roo CJ, van Staveren CJ, Miltenburg AM, Meijerink JH, Elewaut D, de Keyser F, Veys E, Boots AM. Human cartilage glycoprotein-39 as a candidate autoantigen in rheumatoid arthritis. *Arthritis Rheum.*, 1997; 40:1115-25
 132. Vos K, Miltenburg AM, van Meijgaarden KE, van den Heuvel M, Elferink DG, van Galen PJ, van Hogezaand RA, van Vliet-Daskalopoulou E, Ottenhoff TH, Breedveld FC, Boots AM, de Vries RR. Cellular immune response to human cartilage glycoprotein-39 (HC gp-39)-derived peptides in rheumatoid arthritis and other inflammatory conditions. *Rheumatology (Oxford)*, 2000; 39:1326-31
 133. Sandy JD, Flannery CR, Neame PJ, Lohmander LS. The structure of aggrecan fragments in human synovial fluid. *J Clin Invest.*, 1992; 89:1512-16
 134. Morgan K. What do anti-collagen antibodies mean? *Ann Rheum Dis.*, 1990; 49:62-5
 135. Desai BV, Dixit S, Pope RM. Limited proliferative response to type II collagen in rheumatoid arthritis. *J Rheumatol.*, 1989; 16:1310-14

136. Milz S, Putz R, Ralphs JR, Benjamin M. Fibrocartilage in the extensor tendons of the human metacarpophalangeal joints. *Anat Rec.*, 1999; 256:139-45
137. Sztrolovics R, Alini M, Roughley PJ, Mort JS. Aggrecan degradation in human intervertebral disc and articular cartilage. *Biochem J.*, 1997; 326:235-41
138. Lee ER, Lamplugh L, Leblond CP, Mordier S, Magny MC, Mort J. Immunolocalization of the cleavage of the aggrecan core protein at the Asn341-Phe342 bond, as an indicator of the location of the metalloproteinases active in the lysis of the rat growth plate. *Anat Rec.*, 1998; 252:117-32
139. Lark MW, Gordy JT, Weidner JR, Ayala J, Kimura JH, Williams HR, Mumford RA, Flannery CR, Carlson SS, Iwata M, Sandy JD. Cell-mediated catabolism of aggrecan. Evidence that cleavage at the "aggrecanase" site (Glu373-Ala374) is a primary event in proteolysis of the interglobular domain. *J Biol Chem.*, 1995; 270:2550-6
140. Guerassimov A, Zhang Y, Cartman A, Rosenberg LC, Esdaile J, Fitzcharles MA, Poole RA. Immune responses to cartilage link protein and the G1 domain of proteoglycan aggrecan in patients with osteoarthritis. *Arthritis Rheum.*, 1999; 42:527-33
141. Guerassimov A, Duffy C, Zhang Y, Banerjee S, Leroux JY, Reimann A, Webber C, Delaunay N, Vipparti V, Ronbeck L, Cartman A, Arsenault L, Rosenberg LC, Poole AR. Immunity to cartilage link protein in patients with juvenile rheumatoid arthritis. *J Rheumatol.*, 1997; 24:959-64
142. Braun J, Bollow M, Neure L, Seipelt E, Seyrekbasan F, Herbst H, Eggens U, Distler A, Sieper J. Use of immunohistologic and in situ hybridization techniques in the examination of sacroiliac joint biopsy specimens from patients with ankylosing spondylitis. *Arthritis Rheum.*, 1995; 38:499-505
143. Haanen JB, van Oijen MG, Tirion F, Oomen LC, Kruisbeek AM, Vyth-Dreese FA, Schumacher TN. In situ detection of virus- and tumor-specific T-cell immunity. *Nat Med.*, 2000; 6:1056-60
144. Sieper J, Kary S, Sorensen H, Alten R, Eggens U, Hüge W, Hiepe F, Kuhne A, Listing J, Ulbrich N, Braun J, Zink A, Mitchison NA. Oral type II collagen

- treatment in early rheumatoid arthritis. A double-blind, placebo-controlled, randomized trial. *Arthritis Rheum.*, 1996; 39:41-51
145. Brandt J, Haibel H, Cornely D, Golder W, Gonzalez J, Reddig J, Thriene W, Sieper J, Braun J. Successful treatment of active ankylosing spondylitis with the anti-tumor necrosis factor alpha monoclonal antibody infliximab. *Arthritis Rheum.*, 2000; 43:1346-52
146. Dolhain RJE, van der Heiden AN, ter Haar NT, Breedveld FC, Miltenburg AMM. Shift toward T lymphocytes with a T helper 1 cytokine-secretion profile in the joints of patients with rheumatoid arthritis. *Arthritis Rheum.*, 1996; 39:1961-9
147. Weiner HL, Inobe J, Kuchroo V, Chen Y. Induction and characterization of TGF β secreting cells. *FASEB J*, 1996; 10A:A1444
148. Kazou Y, Hiroaki M, Fujio N, Tamon Y, and Tomoatsu K. Reduced expression of the regulatory CD4+ T cell subset is related to Th1/Th2 balance and disease severity in rheumatoid arthritis. *Arthritis Rheum.*, 2000; 43:617-627
149. Murali-Krishna K, Altman JD, Suresh M, Sourdive DJ, Zajac AJ, Miller JD, Slansky J, Ahmed R. Counting antigen-specific CD8 T cells: a reevaluation of bystander activation during viral infection. *Immunity*, 1998; 8:177-87
150. Buzas EI, Mikecz K, Glant TT. Aggrecan: A Target Molecule of Autoimmune Reactions. *Pathol Oncol Res.*, 1996; 2:219-228
151. Leroux JY, Guerassimov A, Cartman A, Delaunay N, Webber C, Rosenberg LC, Banerjee S, Poole AR. Immunity to the G1 globular domain of the cartilage proteoglycan aggrecan can induce inflammatory erosive polyarthritis and spondylitis in BALB/c mice but immunity to G1 is inhibited by covalently bound keratan sulfate in vitro and in vivo. *J Clin Invest.*, 1996; 97:621-32
152. Zou JX, Rudwaleit M, Thiel A, Radbruch A, Zhang Y, Braun J, Sieper J. Cellular immune response to the cartilage-derived autoantigen aggrecan in ankylosing spondylitis and rheumatoid arthritis. *Arthritis Rheum.*, 2001; 44(suppl):S236
153. Kern F, Sural IP, Brock C, Freistedt B, Radtke H, Scheffold A, Blasczyk R,

- Reinke P, Schneider-Mergener J, Radbruch A, Walden P, Volk HD. T-cell epitope mapping by flow cytometry. *Nat Med.*, 1998; 4:975-8
154. Cope AP, Londei M, Chu NR, Cohen SB, Elliott MJ, Brennan FM, Maini RN, Feldmann M. Chronic exposure to tumor necrosis factor (TNF) in vitro impairs the activation of T cells through the T cell receptor/CD3 complex; reversal in vivo by anti-TNF antibodies in patients with rheumatoid arthritis. *J Clin Invest.*, 1994; 94:749-60
155. Baeten D, Van Damme N, Van den Bosch F, Kruithof E, De Vos M, Mielants H, Veys EM, De Keyser F. Impaired Th1 cytokine production in spondyloarthritis is restored by anti-TNFalpha. *Ann Rheum Dis.*, 2001; 60:750-5
156. Plevy SE, Landers CJ, Prehn J, Carramanzana NM, Deem RL, Shealy D, Targan SR. A role for TNF-alpha and mucosal T helper-1 cytokines in the pathogenesis of Crohn's disease. *J Immunol.*, 1997;159:6276-82
157. Agnholt J, Kalltoft K. Infliximab downregulates interferon-gamma production in activated gut t-lymphocytes from patients with crohn's disease. *Cytokine*, 2001;15:212-22
158. Prehn JL, Landers CJ, Targan SR. A soluble factor produced by lamina propria mononuclear cells is required for TNF-alpha enhancement of IFN-gamma production by T cells. *J Immunol.*, 1999; 163:4277-83
159. Maurice MM, van der Graaff WL, Leow A, Breedveld FC, van Lier RA, Verweij CL. Treatment with monoclonal anti-tumor necrosis factor alpha antibody results in an accumulation of Th1 CD4+ T cells in the peripheral blood of patients with rheumatoid arthritis. *Arthritis Rheum.*, 1999; 42:2166-73
160. Nikolaus S, Raedler A, Kuhbacker T, Sfikas N, Folsch UR, Schreiber S. Mechanisms in failure of infliximab for Crohn's disease. *Lancet*, 2000; 356:1475-9
161. Berg L, Lampa J, Rogberg S, van Vollenhoven R, Klareskog L. Increased peripheral T cell reactivity to microbial antigens and collagen type II in rheumatoid arthritis after treatment with soluble TNFalpha receptors. *Ann*

Rheum Dis., 2001; 60:133-9

162. Elliott MJ, Maini RN, Feldmann M, Long-Fox A, Charles P, Katsikis P, Brennan FM, Walker J, Bijl H, Ghayeb J. Treatment of rheumatoid arthritis with chimeric monoclonal antibodies to tumor necrosis factor alpha. *Arthritis Rheum.*, 1993; 36:1681-90
163. Keane J, Gershon S, Wise RP, Mirabile-Levens E, Kasznica J, Schwieterman WD, Siegel JN, Braun MM. Tuberculosis associated with infliximab, a tumor necrosis factor alpha-neutralizing agent. *N Engl J Med.*, 2001; 345:1098-104