7 Literaturverzeichnis

1. Hatz HJ. Glucocorticoide. Immunologische Grundlagen, Pharmakologie und Therapierichtlinien. Stuttgart, 2005.
2. van Hoff J and Ritchey AK. Pulse methylprednisolone therapy for acute childhood idiopathic thrombocytopenic purpura. *J Pediatr* 1988; 113: 563-566.
3. Buttgereit F, Wehling M and Burmester GR. A new hypothesis of modular glucocorticoid actions. *Arthritis Rheum* 1998; 41:761-7.
4. Civitelli R, Hruska KA, Shen V et al. Cyclic AMP-dependent and calcium-dependent signals in parathyroid hormone function. *Exp Gerontol* 1990; 25: 223-31.
5. Morley P, Whitfield JF, Vanderhyden BC et al. A new, nongenomic estrogen action: the rapid release of intracellular calcium. *Endocrinology* 1992; 131(3): 1305-12.
6. Jenis LG, Lian JB, Stein GS et al. 1 alpha,25-dihydroxyvitamin D3-induced changes in intracellular pH in osteoblast-like cells modulate gene expression. *J Cell Biochem* 1993; 53: 234-9.
7. Wehling M, Bauer MM, Ulsenheimer A et al. Nongenomic effects of aldosterone on intracellular pH in vascular smooth muscle cells. *Biochem Biophys Res Commun* 1996; 223: 181-6.
8. de Boland AR and Norman AW. Influx of extracellular calcium mediates 1,25-dihydroxyvitamin D3-dependent transcaltachia (the rapid stimulation of duodenal Ca2+ transport). *Endocrinology* 1990; 127: 2475-80.
9. Wehling M, Kasmayr J and Theisen K. Aldosterone influences free intracellular calcium in human mononuclear leukocytes in vitro. *Cell Calcium* 1990; 11: 565-71.
10. Sylvia VL, Schwartz Z, Schuman L et al. Maturation-dependent regulation of protein kinase C activity by vitamin D3 metabolites in chondrocyte cultures. *J Cell Physiol* 1993; 157: 271-8.
11. Buttgereit F, Straub RH, Wehling M et al. Glucocorticoids in the treatment of rheumatic diseases. *Arthritis Rheum* 2004; 50: 3408-3417.
12. Tyrrell JB. Glucocorticoid therapy. In: Feling P, Baxter JD, Frohman LA, Hrsg. Endocrinology and metabolism. New York. 1995.
13. Evans RM and Hollenberg SM. Cooperative and positional independent trans-activation domains of the human glucocorticoid receptor. *Cold Spring Harb Symp Quant Biol* 1988; 53 Pt 2: 813-8.
14. Fuller PJ. The steroid receptor superfamily: mechanism of diversity. *FASEB* 1991; 5: 3092-3099.
15. Hollenberg SM, Weinberger C, Ong ES et al. Primary structure and expression of a functional glucocorticoid receptor cDNA. *Nature* 1985; 318: 635-641.

16. Encio IJ, Detera-Wadleigh S. The genomic structure of the human glucocorticoid receptor. *J Bilo Chem* 1991; 266: 7182-7188.

17. Oakley RH, Sar M, Cidlowski JA. The human glucocorticoid receptor beta isoform. Expression, biochemical properties, and putative function. *J biol Clin* 1996; 271: 9550-9559.

18. Bamberger CM, Bamberger AM, de Castro M et al. Glucocorticoid receptor beta, a potential endogenous inhibitor of glucocorticoid action in human. *J Clin Invest* 1995; 95: 2435-2441.

19. Oakley RH, Jewell CM, Yudt MR et al. The double negative activity of the human glucocorticoid receptor beta isoform. Specific mechanisms of action. *J Biol Chem* 1999; 39: 27857-66.

20. Sousa AR, Lane SJ, Cidlowski JA et al. Glucocorticoid resistance in asthma is associated with elevated in vivo expression of the glucocorticoid receptor β-isoform. *J Allergy Clin Immunol* 2000; 105: 943-950.

21. Zhang H, Ouyang Q, Wen ZH et al. Significance of glucocorticoid receptor expression in colonic mucosal cells of patients with ulcerative colitis. *World J Gastroenterol* 2005; 11(12): 1775-8.

22. Berg JM. DNA binding specifity of steroids receptors. *Cell* 1989; 57: 1065-1068.

23. Miesfield RL. Molecular genetics of corticosteroid action. *Am Rev Resp Dis* 1990; 141: 11-17.

24. Goulding NJ, Guyre PM. Glucocorticoids, lipocortins and the immune response. *Curr Opin Immunol* 1993; 5: 108-113.

25. Belvisi MG, Wicks SL, Battram CH et al. Therapeutic benefit of a dissociated glucocorticoid and the relevance of in vitro separation of transrepression from transactivation activity. *J Immunol* 2000; 166: 1975-1982.

26. Schäcke H, Hennekes H, Schottelius A et al. SEGRAs: A novel class of anti-inflammatory compounds. From: Recent advances in glucocorticoid receptor action. In Cato ACB, Schäcke H, Asadullah K. Berlin Heidelberg 2002.

27. Schäcke H, Schottelius A, Docke W et al. Dissociation of transactivation from transrepression by a selective glucocorticoid receptor agonist leads to separation of therapeutic effects from side effects. *Proc Natl Acad Sci USA* 2004; 101: 227-232.

28. Mori A, Kaminuma O, Suko M et al. Two distinct pathways of interleukin-5 synthesis in allergen-specific human T-cell clones are suppressed by glucocorticoids. *Blood* 1997; 89: 2891-2900.

29. Yang-Yen H-F, Chambrand J-C, Sun Y-L et al. Transcriptional interference between c-Junc and the glucocorticoid receptor: mutual inhibition of DNA binding due to direct protein-protein interaction. *Cell* 1990; 62: 1205-1215.

30. Vacca A, Felli MP, Farina AR et al. Glucocorticoid receptor-mediated suppression of the interleukin 2 gene expression through impairment of the cooperativity between nuclear factor of activated T cells and AP-1 enhancer elements. *J Exp Med* 1992; 175: 637-646.

31. De Bosscher K, Vanden Berghe W, Vermeulen L et al. Glucocorticoids repress NF-κB-driven genes by disturbing the interaction of p65 with the basal transcription machinery, irrespective of coactivator levels in the cell. *Proc Natl Acad Sci USA* 2000; 97: 3919-3924.

32. Garneli-Piperino A, Nolan P, Inaba K et al. The effect of immunosuppressive agents on the induction of nuclear factors that bind to sites on the interleukin 2 promoter. *J Exp Med* 1990; 172: 1869-1872.

33. Chen R, Burke TF, Cumberland JE et al. Glucocorticoids inhibit calcium- and calcineurin dependent activation of the human IL-4 promoter. *J Immunol* 2000; 164: 825-832.

34. Northrop JP, Crabtree GR, Mattila PS. Negative regulation of interleukin 2 transcription by the glucocorticoid receptor. *J Exp Med* 1992; 175: 1235-1245.

35. Paliogianni F, Raptis A, Ahuja SS et al. Negative regulation of human interleukin 2 (IL-2) gene by glucocorticoids through interference with nuclear transcription factors AP-1 and NF-AT. *J Clin Invest* 1993; 91: 1481-1489.

36. Barnes PJ, Katrin M. Nuclear factor-κB – A pivotal transcription factor in chronic inflammatory diseases. *N Engl J Med* 1997; 336: 1066-71.

37. Scheinman RI, Cogswell PC, Lofquist AK et al. Role of transcriptional activation of immunosuppression by glucocorticoids. *Science* 1995; 270: 283-6.

38. Auphan N, Didonato JA, Rosette C et al. Immunosuppression by glucocorticoids: inhibition of NF-κB activity through of IκB synthesis. *Science* 1995; 270: 286-289.

39. Quan N, He L, Lai W et al. Induction of IκBα mRNA expression in the brain by glucocorticoids: a negative feedback mechanism for immune-to-brain signaling. *J Neurosci* 2000; 20: 6473-6477.

40. Goppelt-Struebe M, Rehm M, Schäfers HJ. Induction of cyclooxygenase-2 by platelet-derived growth factor (PDGF) and its inhibition by dexamethasone are independent of NF-κB/IκB transcription factors. *Naunyn Schmiedebergs Arch Pharmacol* 2000; 361: 636-645.

41. Bourke E, Moynagh PN. Antiinflammatory effects of glucocorticoids in brain cells, independent of NF-κB. *J Immunol* 1999; 163: 2113-2119.

42. Costas MA, Muller Igaz L, Holsboer F et al. Transrepression of NF-κB is not required for glucocorticoid protection of TNF-α-induced apoptosis on fibroblasts. *Biochim Biophys Acta* 2000; 1499: 122-129.

43. Ray A, Prefontaine KE. Physical association and functional antagonism between the p65 subunit of transcription factor NF-κB and the glucocorticoid receptor. *Proc Natl Acad Sci USA* 1994; 91: 752-6.

44. Caldenhoven E, Liden J, Wissink S et al. Negative cross-talk between RelA and the glucocorticoid receptor: a possible mechanism for the antiinflammatory action of glucocorticoids. *Mol Endocrinol* 1995; 9: 401-12.

45. Kamei Y, Xu L, Heinzel T et al. A CBP integrator complex mediates transcriptional activation and AP-1 inhibition by nuclear receptor. *Cell* 1996; 85: 403-14.

46. Boumpas DT. A novel action of glucocorticoids- NF-κB inhibition. *Br J Rheumatol* 1996; 35: 709-10.

47. Ristimaki A, Narko K, Hla T. Down-regulation of cytokine induced cyclo-oxygenase-2 transcript isoforms by dexamethasone: evidence for post-transcriptional regulation. *Biochem J* 1996; 318: 325-331.

48. Eklund KK, Humphries DE, Xia Z et al. Glucocorticoids inhibit the cytokine-induced proliferation of mast cells, the high affinity IgE receptor-mediated expression of TNF-alpha, and the IL-10-induced expression of chymases. *J Immunol* 1997; 158: 4373-4380.

49. Fessler BJ, Paliogianni F, Hama N et al. Glucocorticoids modulate CD28 mediated pathways for interleukin 2 production in human T cells: evidence for post-transcriptional regulation. *Transplantation* 1996; 62: 1113-1118.

50. Bickel M, Cohen RB, Pluznik DH. Post-transcriptional regulation of granulocyte-macrophage colony-stimulating factor synthesis in murine T cells. *J Immunol* 1990; 145: 840-845.

51. Newton R, Seybold J, Kuitert LM et al. Repression of cyclooxygenase-2 and prostaglandin E2 release by dexamethasone occurs by transcriptional and post-transcriptional mechanism involving loss of polyadenylated mRNA. *J Biol Chem* 1998; 273: 32312-32321.

52. Almawi WY, Abou-Jaoude MM, Li X. Transcriptional and post-transcriptional mechanisms of glucocorticoid antiproliferative effects. *Hematol Oncol* 2002; 20: 17-32.

53. Rose JD, Moore FL, Orchnik M. Rapid neurophysiological effects of corticosterone on medullary neurons: relationship to stress-induced supression of courtship clasping in an amphibian. *Neuroendocrinology* 1993; 57: 815-824.

54. Feldman S, Dafny N. Changes in single cell responsiveness in the hypothalamus in cats following cortisol administration. *Brain Res* 1970; 20: 369-77.

55. Feldman S, Dafny N. Effects of cortisol on unit activity in the hypothalamus of the rat. *Exp Neurol* 1970; 27: 375-87.

56. Filaretov AA. The afferent input and functional organization of the hypothalamus in reactions regulating pituitary-adreno-cortical activity. *Brain Res* 1976; 107: 39-54.

57. Avanzio GL, Ermirio R, Ruggeri P et al. Effect of microelectrophoretically applied corticosterone on raphe neurones in the rat. *Neurosci Lett* 1984; 50: 307-11.

58. Koukouritaki SB, Theodoropoulos PA, Margioris AN et al. Dexamethasone alters rapidly actin polymerization dynamics in human endometrial cells: evidence for nongenomic actions involving cAMP turnover. *J Cell Biochem* 1996; 62: 251-61.

59. Koukouritaki SB, Margioris AN, Gravanis A et al. Dexamethasone induces rapid actin assembly in human endometrial cells without affecting its synthesis. *J Cell Biochem* 1997; 65: 492-500.

60. Venero C, Borrell J. Rapid glucocorticoid effects on excitatory amino acid levels in the hippocampus: A microdialysis study in freely moving rats. *Eur J Neurosci* 1999; 11: 2465-2473.

61. Lou SJ, Chen YZ. The rapid inhibitory effect of glucocorticoid on cytosolic free Ca^{2}+ increment induced by high extracellular K+ and its underlying mechanism in PC12 cells. *Biochem Biophys Res Commun* 1998; 244: 403-407.

62. Cifone MG, Migliorati G, Marchetti C et al. Dexamethasone-induced thymocyte apoptosis: Apoptotic signal involves the sequential activation of phosphoinositide-specific phospholipase C, acidic sphingomyelinase, and caspases. *Blood* 1999; 93: 2282-2296.

63. Croxtall JD, Choudhury Q, Flower RJ. Glucocorticoids act within minutes to inhibit recruitment of signalling factors to activated EGF receptors through a receptor-dependent, transcription-independent mechanism. *Br J Pharmacol* 2000; 130: 289-298.

64. Marchetti MC, Di Marco B, Cifone G et al. Dexamethasone-induced apoptosis of thymocytes: role of glucocorticoid receptor-associated Src kinase and caspase-8 activation. *Blood* 2003; 101; 585-593.

65. Buttgereit F, Krauss S, Brand MD. Methylprednisolone inhibits uptake of Ca^{2+} and Na^{+} into concanavalin A-stimulated thymocytes. *Biochem J* 1997; 326: 329-332.

66. Buttgereit F, Brand MD, Müller M. Effects of methylprednisolone on the energy metabolism of quiescent and concanavalin A-stimulated thymocytes of the rat. *Biosci Rep* 1993; 13: 41-52.

67. Sanden S, Tripmacher R, Weltrich R et al. Glucocorticoid dose dependent downregulation of glucocorticoid receptors in patients with rheumatic diseases. *J Rheumatol* 2000; 27: 1265-1270.

68. Moore FL, Orchnik M. Membrane receptors for corticosterone: A mechanism for rapid behavioral responses in an amphibian. *Horm Behav* 1994; 28: 512-519.

69. Moore FL, Orchnik M, Lowry C. Functional studies of corticosterone receptors and neuronal membranes. *Receptors* 1995; 5: 21-28.

70. Evans SJ, Murray TF, Moore FL. Partial purification and biochemical characterization of a membrane glucocorticoid receptor from an amphibian brain. *J Steroid Biochem Mol Biol* 2000; 72: 209-21.

71. Gametchu B. Glucocorticoid receptor-like antigen in lymphoma cell membranes: correlation to cell lysis. *Science* 1987; 236: 456-61.

72. Gametchu B, Watson CS, Pasko D. Size and steroid-binding characterization of membrane-associated glucocorticoid receptor in S-49 lymphoma cells. *Steroids* 1991; 56: 402-10.

73. Grote H, Ioannou I, Voigt J et al. Localization of the glucocorticoid receptor in rat liver cells: evidence for plasma membrane bound receptor. *Int J Biochem* 1993 ; 25: 1593-9.

74. Gametchu B, Watson CS, Wu S. Use of receptor antibodies to demonstrate membrane glucocorticoid receptor in cells from human leukemic patients. *FASEB* 1993; 7: 1283-92.

75. Sackey FN, Watson CS, Gametchu B. Cell cycle regulation of membrane glucocorticoid receptor in CCRF-CEM human ALL cells: correlation to apoptosis. *Am J Physiol* 1997; 273: E571-83.

76. Orchnik M, Murray TF, Moore FL. A corticosteroid receptor in neuronal membranes. *Science* 1991; 252: 1848-1851.

77. Rose JD, Kinnaird JR, Moore FL. Neurophysiological effects of vasotocin and corticosterone on medullary neurones: implications for hormonal control of amphibian courtship behavior. *Neuroendocrinology* 1995; 62: 406-417.

78. Powell CE, Watson CS, Gametchu B. Immunoaffinity isolation of native membrane glucocorticoid receptor from S-49++ lymphoma cells: biochemical characterization and interaction with Hsp 70 and Hsp 90. *Endocrine* 1999; 10: 271-80.

79. Gametchu B, Watson CS, Shih CC et al. Studies on the arrangement of glucocorticoid receptors in the plasma membrane of S-49 lymphoma cells. *Steroids* 1991; 56: 411-419.

80. Evans SJ, Moore FJ, Murray TF. Solubilization and pharmacological characterisation of a glucocorticoid membrane receptor from an amphibian brain. *J Steroid Biochem Molec Biol* 1998; 67: 1- 8

81. Ibarolla I, Andres M, Marino A et al. Purification of a cortisol binding protein from hepatic plasma membrane. *Biochem Biophys Acta* 1996; 1284: 41- 46.

82. Bartholome B, Spies CM, Gaber T et al. Membrane glucocorticoid receptors (mGCR) are expressed in normal human peripheral blood mononuclear cells and up-regulated after in vitro stimulation and in patients with rheumatoid arthritis. *FASEB J* 2004: 70-80.

83. Spies C. Klinische und experimentelle Untersuchungen zu membranständigen Glucocorticoidrezeptoren. Berlin: Humboldt Universität zu Berlin, 2005.

84. Watson ChS, Norfleet AM, Pappas TC et al. Rapid action of estrogens in GH_3/B6 pituitary tumor cells via a plasma membrane version of estrogen receptor-α. *Steroids* 1999; 64: 5-13.

85. Wunderlich F, Benten WPM, Lieberherr M, et al. Testosterone signaling in T cells and macrophages. *Steroids* 2002; 67: 535-538.

86. O'Brien RM, Noisin EL, Suwanichkul A et al. Hepatic nuclear factor 3- and hormone-regulated expression of the phosphoenolpyruvate carboxykinase and insulin-like growth factor-binding protein 1 genes. *Mol Cell Biol* 1995; 15: 1747-58.

87. Crosson SM, Roesler WJ. Hormonal regulation of the phosphoenolpyruvate carboxykinase gene. Role of specific CCAAT/enhancer-binding protein isoforms. *J Biol Chem* 2000; 275: 5804-9.

88. Yoshiuchi I, Shingu R, Nakajima H et al. Mutation/polymorphism scanning of glucose-6-phosphatase gene promoter in noninsulin-dependent diabetes mellitus patients. *J Clin Endocrinol Metab* 1998; 83: 1016-9.

89. Lutjen-Drecoll E, May CA, Polansky JR et al. Localization of the stress proteins alpha B-crystallin and trabecular meshwork inducible glucocorticoid response protein in normal and glaucomatous trabecular meshwork. *Invest Ophthalmol Vis Sci* 1998; 39: 517-25.

90. Beer HD, Fassler R, Werner S. Glucocorticoid-regulated gene expression during cutaneous wound repair. *Vitam Horm* 2000; 59: 217-39.

91. Weinstein RS, Jilka RL, Parfitt AM et al. Inhibition of osteoblastogenesis and promotion of apoptosis of osteoblasts and osteocytes by glucocorticoids. Potential mechanisms of their deleterious effects on bone. *J Clin Invest* 1998; 102: 274-82.

92. Silvestrini G, Ballanti P, Patacchioli FR et al. Evaluation of apoptosis and the glucocorticoid receptor in the cartilage growth plate and metaphyseal bone cells of rats after high-dose treatment with corticosterone. *Bone* 2000; 26: 33-42.

93. Bartholome B. Untersuchungen zu Wirksamkeit, Verträglichkeit und Wirkmechanismen der Glucocorticoide bei Patienten mit entzündlich-rheumatischen Erkrankungen. Berlin: Humboldt Universität zu Berlin, 2004.

94. Delmas PD. Biochemical markers of bone turnover for the clinical assessment of metabolic bone disease. *Endocrin Metab Clin N Am* 1990; 19: 1-18.

95. Prockop OJ. Treatise on collagen. New York. 1968.

96. Lothar T. Labor und Diagnose. Indikation und Bewertung von Laborbefunden für die medizinische Diagnostik. 5 Auflage. TH Books, Frankfurt/Main, 1998.

97. Delmas PD, Schlemmer A, Gineyts E et al. Urinary excretion of pyridinoline crosslinks correlates with bone turnover measured on iliac crest biopsy in patients with vertebral osteoporosis. *J Bone Miner Res* 1990; 6: 639-644.

98. Bonde M, Qvist P, Fledelius C et al. Applications of an enzyme immunoassay for a new marker of bone resorption (CrossLaps): follow-up on hormone replacement therapy and osteoporosis risk assessment. *J Clin Endocrinol Metab* 1995; 80: 864-868.

99. Garnero P, Shih WJ, Gineyts E et al. Comparison of new biochemical markers of bone turnover in late postmenopausal women in responds to alendronate treatment. *J Clin Endocrinol Metab* 1994; 79: 1693-1700.

100. Delmas PD, Gineyts E, Bertholin A et al. Immunoassay of pyridinoline crosslink excretion in normal adults and in Paget's disease. *J Bone Miner Res* 1993; 8: 643-648.

101. Chapurlat RD, Garnero P, Breart G et al. Serum type I collagen breakdown product (serum CTX) predicts hip fracture risk in elderly women: the EPIDOS study. *Bone* 2000; 27: 283-286.

102. Manicourt DH, Poilvache P, Van Egeren A et al. Synovial fluid levels of tumor necrosis factor alpha and oncostatin M correlate with levels of markers of the degeneration of crosslinked collagen and cartilage aggrecan in rheumatoid arthritis but not osteoarthritis. *Arthritis Rheum* 2000; 43: 281-288.

103. Rosen HN, Dresner-Pollak R, Moses AC et al. Specifity of urinary excretion of cross-linked N-telopeptides of type I collagen as markers of bone turnover in humans. *Calcif Tissue Int* 1994; 54: 26-29.

104. Leidig-Bruckner G, Minne HW, Schlaich C et al. Clinical grading of spinal osteoporosis: Quality of life components and spinal deformity in women with chronoc low back pain and women with vertebral osteoporosis. *JBMR* 1997; 12: 663-675.

105. Ware JF, Sherbourne CD. The MOS SF-36 item short-form health survey (SF-36): conceptual framework and item selection. *Med Care* 1992; 30: 473-83.

106. Tuttleman M, Pillemer S, Tilley B et al. Cross selectional assessment of health status instruments in patients with rheumatoid arthritis participating in clinical trial. *J Rheumatol* 1997; 24: 1910-5.

107. Brazier JE, Harper R, Jones NMB et al. Validating the SF-36 health survey questionnaire: new outcome measure for primary care. *BMJ* 1992; 305: 160-164.

108. Wann-Hansson Ch, Hallberg IR, Risberg B et al. A comparison of the Nottingham Health Profile and Short Form 36 Health Survey in patients with chronic lower limb ischaemia in a longitudinal perspective. *BioMed Central* 2004.

109. Kosinski MMA, Keller SD, Ware JE et al. The SF-36 Health Survey as a generic outcome measure in clinical trials of patients with osteoarthritis and rheumatoid arthritis: Relative validity of scales in relation to clinical measures of arthritis severity. *Med Care* 1999; 37 (suppl.): MS23-39.

110. Kvien TK, Smedstad LM, Uhlig T. The responsiveness of generic and disease specific health status measures in 759 patients with rheumatoid arhtritis (RA). *Arthritis Rheum* 1996; 39 (suppl.): poster 1393.

111. Ruta DA, Hurst NP, Kind P et al. Measuring health status in british patient with rheumatoid arthritis: reliability, validity and responsiveness of the short form 36-item health survey (SF-36). *Br J Rheumatol* 1998; 37: 425-436.

112. Strand V, Tugwell P, Bombardier C et al. Funktion und gesundheitsbezogene Lebensqualität. *Arthritis Rheum* 1999; 42: 1870-1878.

113. Bullinger B, Kirchberger I. SF-36, Fragebogen zum Gesundheitszustand. Hogrefe, Verlag für Psychologie.

114. Taylor WJ, Myers J, Russel TS et al. Quality of life of people with rheumatoid arthritis as measured by the world health organisation quality of instrument, short form (WHOQOL_BREF) : Score distribution and psychometric properties. *Arthritis Rheum* 2004; 51: 350-357.

115. Wolfe F, Mitchell DM, Sibley JT et al. The mortality of rheumatoid arthritis. *Arthritis Rheum* 1994; 37: 481-494.

116. Buchbinder R, Bombardier C, Yeung M et al. Which outcome measures should be used in rheumatoid arthritis clinical trials? *Arthritis Rheum* 1995; 38: 1568-1580.

117. van der Linden S, Valkenburg HA, Cats A. Evaluation of diagnostic criteria for ankylosing spondylitis *Arthritis Rheum* 1984; 27: 361-368.

118. Mintz G, Enriquez RD, Mercado U et al. Intravenous methylprednisolone pulse therapy in severe ankylosing spondylitis. *Arthritis Rheum* 1981; 24: 734-736.

119. Richter MB, Woo P, Panayi GS et al. The effects of intravenous pulse metyloprednisolone on immunological and inflammatory processes in ankylosing spondylitis. *Clin Exp Immunol* 1983; 53: 51-59.

120. Bollow M, Braun J, Taupitz M et al. CT-guided intraarticular corticosteroid injection into the sacroiliac joints in patients with spondyloarthropathie: Indication and follow-up with contrast-enhanced MRI. *J Comput Assist Tomogr* 1996; 20: 512-521.

121. Karabacakoglu A, Karaköse S, Özerbil ÖM et al. Fluoroscopy-guided intraarticular corticosteroid injection into the sacroiliac joints in patients with ankylosing spondylitis. *Acta Radiologica* 2002; 43: 425-427.

122. Garrett S, Jenkinson T, Kennedy LG et al. A new approach to defining disease status in ankylosing spondylitis: The Bath Ankylosing Spondylitis Disease Activity Index. *J Rheumatol* 1994; 21: 2286-91.

123. Braun J, Sieper J. Building consensus on nomenclature and disease classification for ankylosing spondylitis: results and discussion of a questionnaire prepared for the International Workshop on New Treatment Strategies in Ankylosing Spondylitis, Berlin, Germany, 18-19 January 2002. Ann Rheum Dis 2002; 61 (Suppl III): iii61-iii67.

124. Colomb D. Manifestations cutanées la corticothérapie générale prolongée. *Presse méd* 1971; 79: 1011-1012.

125. HD Bruhn, UR Fölsch. Lehrbuch der Labormedizin. Grundlagen, Diagnostik, Klinik, Pathobiochemie. Stuttgart, New York 1999.

126. Brunner Edgar und Langer Frank. Nichtparametrische Analyse longitudinaler Daten. München, Wien, Oldenbourg, 1999.

127. Buttgereit F, da Silva JA, Boers M et al. Standardised nomenclature for glucocorticoid dosages and glucocorticoid treatment regimens: current questions and tentative answers in rheumatology. *Ann Rheum Dis* 2002; 61:718-22.

128. Lipworth BJ. Therapeutic implications of non-genomic glucocorticoid activity. *Lancet* 2000; 356:87-9.

129. Lems WF, Jahangier ZN, Jacobs JMG et al. Vertebral fractures in patients with rheumatoid arthritis treated with corticosteroids. *Clin Exp Rheumatol* 1995; 13: 293-297.

130. de Nijs RNJ, Jacobs JMG, Bijlsma JWJ et al. Prevalence of vertebral deformities and symptomatic vertebral fractures in corticoid treated patients with rheumatoid arthritis. *Rheumatology* 2001; 40: 1375-1383.

131. van Staa TP, Leufkens HGM, Abenhaim L et al. Oral corticosteroids and fracture risk: relationship to daily and cumulative doses. *Rheumatology* 2000: 39: 1383-1389.

132. Linnér E. Adrenocortical steroids and aqueous humour dynamics. *Docum Ophth* 1959; 13: 210.

133. Goldmann H. Cortisone glaucoma. *AMA Arch Ophth* 1962; 68: 621-627.

134. François J. Glaucome apparemment simple, secondaire á la cortisonothérapie locale. *Ophtalmologica* (Suppl.) 1961; 142: 517.

135. Sommer A, Tielsch JM, Katz J et al. Relationship between intraocular pressure and primary open angle glaucoma among withe and black Americans. *Arch Ophthalmol* 1991; 109: 1090-1095.

136. Dielmans I, Vingerling JR, Wolfs RC et al. The prevalence of primary open-angle glaucoma in a population-based study in The Netherlands. *Ophthalmology* 1994; 101: 1851-1855.

137. Alfano JE. Changes in the intraocular pressure associated with systemic steroid therapy. *Am J Ophthalmol* 1963; 56: 245-247.

138. Stern JJ. Acute glaucoma during cortisone therapy. *Am J Ophthalmol* 1953; 36: 389-390.

139. Covell LL. Glaucoma induced by systemic steroid therapy. *Am J Ophthalmol* 1958; 45: 108-109.

140. Harris JL. Glaucoma associated with steroid therapy and atopic dermatitis. *Am J Ophthalmol* 1960; 49: 351-353.

141. Bernstein HN, Schwartz B. Effects of long term systemic steroids on ocular pressure and tonographic values. *Arch Ophthalmol* 1962; 68: 742-754.

142. Armaly MF. The heritable nature of dexamethasone-induced ocular hypertension. *Arch Ophthalmol* 1966; 75: 32-35.

143. Armaly MF. Inheritance of dexamethasone hypertension and glaucoma. *Arch Ophthalmol* 1967; 77: 747-751.

144. Becker B. Intraocular pressure response to topical corticosteroids. *Invest Ophthalmol* 1965; 4: 198-205.

145. Becker B. Topical corticosteroids and intraocular pressure. In Becker B and Drews RC (eds.): Current Concepts in Ophthalmology. St.Louis, C.V. Mosby, 1967, p.132.

146. Armaly MF. Effect of corticosteroids on ocular pressure and fluid dynamics. II. The effect of dexamethasone in the glaucomatous eye. *Arch Ophthalmol* 1963; 70: 98-105.

147. Becker B, Hahn KA. Topical corticosteroids and heredity in primary open-angle glaucoma. *Am J Ophthalmol* 1964; 57: 543-251.

148. Schwartz JT, Reuling FH, Feinleib M et al. Twin study on ocular pressure after topical dexamethasone. I. Frequency distribution of pressure response. *Am J Ophthalmol* 1973; 76: 126-136.

149. Schwartz JT, Reuling FH, Feinleib M et al. Twin study on ocular pressure following topically applied dexamethasone. II. Inheritance of variation in pressure response. *Am J Ophthalmol* 1973; 90: 281-286.

150. Southren AL, Gordon GG, l'Hommelieu D et al. 5B-dihydrocortisol: Possible mediator of the ocular hypertension in glaucoma. *Invest Ophthalmol Vis Sci* 1985; 26: 393-395.

151. Weinstein BI, Munnangi P, Gordon GG et al. Defects in cortisolmetabolizing enzymes in primary open-glaucoma. *Invest Ophthalmol Vis Sci* 1985; 26: 890-893.

152. Clark AF, Wilson K, de Kater AW et al. Dexamethasone-induced ocular hypertension in perfusion-cultured human eyes. *Invest Ophthalmol Vis Sci* 1995; 36: 478-488.

153. Feiler-Ofry V, Godel V, Stein R. Systemic steroids and ocular fluid dynamics. III. The genetic nature of the ocular response and its different levels. *Acta ophthalmol* 1972; 50: 699-706.

154. David DS, Brekowitz JS. Ocular effects of topical and systemic corticosteroids. *Lancet* 1969; 149-150.

155. Long WF. A case of elevated intraocular pressure associated with systemic steroid therapy. *Am J Optom Physiol Opt* 1977; 54: 248-252.

156. Godel V, Feilery-Ofry, Stein R. Systemic steroids and ocular fluid dynamics. I. Analysis of the sample as a whole. Influence of dosage and duration of therapy. *Acta ophthalmol* 1972; 50 : 655-63.

157. Garbe E, LeLorier J, Boivin J-F et al. Risk of ocular hypertension or open-angle glaucoma in elderly patients on oral glucocorticoids. *Lancet* 1997; 350: 979-982.

158. Wilson MR, Herzmark MA, Walker AM et al. A case-control study of risk factor in open angle glaucoma. *Acta ophthalmol* 1970; 105: 1066-1071.

159. Laske MC, Podgor MJ. Intraocular pressure, cardiovascular risk variables, and visual field defects. *Am J Epidemiol* 1983; 118: 280-287.

160. Klein BE, Klein R. Intraocular pressure and cardiovascular risk variables. *Arch Ophthalmol* 1981; 99: 837-839.

161. Armaly MF. The genetic determinants of ocular pressure in the normal eye. *Arch Ophthalmol* 1967; 78: 187-192.

162. Armaly MF. Genetic determination of cupdisc ratio of the optic nerve. *Arch Ophthalmol* 1967; 78: 35-43.

163. Becker B: Diabetes mellitus and primary open-angle glaucoma. *Am J Ophthalmology* 1971; 71: 1-16.

164. David R, Zangwill L, Tessler Z et al. The correlation between intraocular pressure and refractive status. *Arch Ophthalmol* 1985; 103(12):1812-5.1985.

165. Seddon JM, Schwartz B, Flowerdew G. Case-control study of ocular hypertension. *Arch Ophthalmol* 1983; 101: 891-894.

166. Kahn HA, Milton RC. Alternative definitions of open-angle glaucoma: Effect on prevalence and associations in the Framingham Eye Study. *Arch Ophthalmol* 1980; 98: 2172-2177.

167. Carel RS, Korczyn AD, Rock M et al. Association between ocular pressure and certain health parameters. *Ophthalmology* 1984; 91: 311-314.

168. Zetterberg C, Mannius S, Mellstrom D et al. Osteoporosis and back pain in the elderly: a controlled epidemiologic and radiographic study. *Spine* 1990; 15: 783-786.

169. Ettinger B, Black DM, Nevitt MC et al. Contribution of vertebral deformities to chronic back pain and disability. The Study of Osteoporotic Fractures Research Group. *J Bone Miner Res* 1992; 7: 449-456.

170. Keitel W. Rückenschmerz aus internistisch-rheumatologischer Sicht. Z ärztl Fortbild 1996; 90: 671-676.

171. Nevitt M, Ettinger B, Black D et al. The association of radiographically detected vertebral fractures with back pain and function: a prospective study. *Ann Intern Med* 1998; 128: 793-800.

172. Matthis C, Weber U, O'Neill T et al. Health impact associated with vertebral deformities: results from European Vertebral Osteoporosis Study (EVOS). *Osteoporos Int* 1998; 8: 364-372.

173. Nicholas J, Wilson P. Osteoporosis of the aged spine. *Clin Orthop* 1963; 26: 19-33.

174. Ryan P, Evans P, Gibson T et al. Osteoporosis and chronic back pain: a study with single-photon emission computed tomography bone scintigraphy. *J Bone Miner Res* 1992; 7: 1455-60.

175. Peris P, Guañabens N, Monegal A et al. Aethiology and presenting symptoms in male osteoporosis. *Br J Rheumatol* 1995; 34: 936-941.

176. Liu-Ambrose T, Eng JJ, Khan KM et al. The influence of back pain on balance and functional mobility in 65- to 75-year-old women with osteoporosis. *Osteoporosis Int* 2002; 13: 868-873.

177. Malmros B, Mortensen L, Jensen M et al. Positive effects of physiotherapy on chronic pain and performance in osteoporosis. *Osteoporosis Int* 1998; 8: 215-21.

178. Ross PD, Ettinger B, Davis JW et al. Evaluation of adverse health outcomes associated with vertebral fractures. *Osteoporosis Int* 1991; 1: 134-140.

179. Nicholson PHF, Haddaway MJ, Davie MWJ et al. Vertebral deformity, bone mineral density, back pain and height loss in unscreened women over 50 years. *Osteoporosis Int* 1993; 3: 300-307.

180. Helliwell PS, Zebouni LNP, Porter G et al. A clinical and radiological study of back pain in rheumatoid arthritis. *Br J Rheumatol* 1993; 32: 216-221.

181. Manabe T, Takasugi S, Iwamoto Y. Positive relationship between bone mineral density and low back pain in middle-aged women. *Eur Spine J* 2003; 12: 596-601.

182. Luoma K, Riihimaki H, Luukkonen R et al. Low back pain in relation to lumbar disc degeneration. *Spine* 2000; 25: 487-492.

183. Nourbakhsh MR, Moussavi SJ, Salavati M. Effects of lifestyle and work-related physical activity on the degree of lumbar lordosis and chronic low back pain in a Middle East population. *J Spinal Disord* 2001; 14: 283-292.

184. Palmer KT, Syddall H, Cooper C et al.Smoking and musculoskeletal disorder: finding from a British national survey. *Ann Rheum Dis* 2003; 62: 33-36.

185. Vogt MT, Hanscom B, Lauerman WC et al. Influence of smoking on the health status of spinal patients: the National Spine Network database. *Spine* 2002; 27: 313-319.

186. Scharla SH, Scheidt-Nave C, Leidig G at al. Lower serum 25-hydroxyvitamin D is associated with increased bone resorption markers and lower bone density at the proximal femur in normal females: a population-based study. *Exp Clin Endocrinol Diabetes* 1996; 104: 289-92.

187. Blunt JW, DeLuca HF, Schones HK. 25-hydroxycholecalciferol. A biologically active metabolite of vitamin D3. *Biochemistry* 1968; 7: 3317.

188. Henry HL. Effect of dexamethasone on 25-hydroxyvitamin D_3 metabolism by chick kidney cell cultures. *Endocrinology* 1986; 118: 1134-1138.

189. Lawson DEM, Fraser DR, Kodicek E. Identification of 1,25-dihydroxycholecalciferol, a new kidney hormone controlling calcium metabolism. *Nature* 1971; 30: 228.

190. Conney 1967 Conney AH. Pharmacological implications of microsomal enzyme induction. *Pharmacol Rev* 1967; 19: 317-66.

191. Carre M, Ayigbede O, Miravet L et al. The effect of Prednisolone upon the metabolism and action of 25-hydroxy-and 1,25-dihydroxyvitamin D3. *Proc Natl Acad Sci U S A* 1974; 71: 2996-3000.

192. Korkor AB, Kuchibotla J, Arrieh M et al. The effects on chronic prednisone administration on intestinal receptors for 1,25-dihydroxyvitamin D3 in the dog. *Endocrinology* 1985; 117: 2267-2273.

193. Avioli LV, Birge SJ, Lae SW et al. Effects of prednisone on vitamin D metabolism in man. *J Clin Endocrinol Metab* 1968; 28: 1341.

194. Kimberg DV, Baerg RD, Gershon E et al. Effect of cortisone treatment on the active transport of calcium by the small intestine. *J Clin Invest* 1971; 59: 1309.

195. Hahn TJ, Halstead LR, Baran DT. Effects of short term glucocorticoid administration on intestinal calcium absorption and circulating vitamin D metabolite concentration in men. *J Clin Endocrinol Metab* 1981; 52: 111-115.

196. Klein RG, Arnaud SB, Gallagher JC et al. Intestinal calcium absorption in exogenous hypercortisonism. *J Clin Invest* 1977; 60: 253-259.

197. Slovik DM, Neer RM, Ohman JL et al. Parathyroid hormone and 25-hydroxyvitamin D levels in glucocorticoid-treated patients. *Clin Endocrinol* 1979; 1980: 243-248.

198. Seeman E, Kumar R, Hunder GG et al. Production, degeneration, and circulating levels of 1,25-dihydroxyvitamin D in health and chronic glucocorticoid excess. *J Clin Invest* 1980; 66: 664-669.

199. Ememl'ianov AV, Shevelev SE, Murzin BA et al. Efficiency of calcium and vitamin D3 in the treatment of steroid osteoporosis in patients with hormone dependent bronchial asthma. *Ter Arkh* 1999; 71: 68-69.

200. Wissing KM, Broeders N, Moreno-Reyes R et al. A controlled study of vitamin D3 to prevent bone loss in renal-transplant patients receiving low-doses of steroids. *Transplantation* 2005; 79: 108-15.

201. Oelzner P, Müller A, Deschner F et al. Relationship between disease activity and serum levels of vitamin D metabolites and PTH in rheumatoid arthritis. *Calcif Tissue Int* 1998; 62: 193-198.

202. Kröger H, Penttila IM, Alhava EM. Low serum vitamin D metabolites in women with rheumatoid arthritis. *Scand J Rheumatol* 1993; 22: 172-7.

203. Maver EB, Hayes ME, Still PE et al. Evidence for nonrenal synthesis of 1,25-dihydroxyvitamin D in patients with inflammatory arthritis. *J Bone Miner Res* 1991; 6: 733-739.

204. Williams LC, Nesbitt LT. Update on systemic glucocorticosteroids in dermatology. *Dermatol Clin* 2001; 19: 63-77.

205. Truhan AP, Ahmed AR. Corticosteroids: A review with emphasis on complications of prolonged systematic therapy. *Ann Allergy* 1989; 62: 375-390.

206. Stroud TD, Van Dersarl JV. Striae- Report of Cases. *Arch Derm* 1971; 103: 103-104.

207. Lawrence SH, Salkin D, Schwartz JA et al. Rupture of abdominal wall through stria distensa during cortisone therapy. *JAMA* 1953; 152: 1526-1527.

208. Kolbe L, Kligman AM, Schreiner V et al. Corticosteroid-induced atrophy and barrier impairment measured by non-invasive methods in human skin: *Skin Res Technol* 2001; 7: 73-7.

209. Niedner R Principles of rational therapy with external glucocorticosteroids. *Hautarzt* 1991; 42: 337-46.

210. Bauer FW, Boezeman JB, Rijzewijk JJ et al. Topical corticosteroids delay the proliferative response to sellotape stripping. *Skin Pharmacol* 1989; 2: 204-9.

211. Hein R, Korting HC, Mehring T. Differential effect of medium potent nonhalogenated double-ester-type and conventional glucocorticoids on proliferation and chemotaxis of fibroblasts in vitro. *Skin Pharmacol* 1994; 7: 300-6.

212. Korting HC, Hulsebus E, Kerscher M et al. Discrimination of the toxic potential of chemically differing topical glucocorticoids using a neutral red release assay with human keratinocytes and fibroblasts. *Br J Dermatol* 1995; 133: 54-9.

213. Kutsch CL, Norris DA, Arend WP. Tumor necrosis factor-alpha induces interleukin-1 alpha and interleukin-1 receptor antagonist production by cultured human keratinocytes. *J Invest Dermatol* 1993; 101: 79-85.

214. Goldring MB, Goldring SR. Cytokines and cell growth control. *Crit Rev Eukaryot Gene Expr* 1991; 1: 301-26.

215. Keiser H. Cortisonderivate in der Klinik und Praxis. Stuttgart 1977. 7. Auflage. S.38-39.

216. Zheng P, Lavker RM, Klingman AM. Anatomy of striae. *Br J Dermatol* 1985; 112: 185-193.

217. Rogalski Ch, Haustein U-F, Glander H-U et al. Extensive striae distensae as a result of topical corticosteroid therapy in psoriasis vulgaris. *Acta Derm Venereol* 2002; 83: 54-55.

218. Covar RA, Leung DYM, McCormick D et al. Risk factors associated with glucocorticoid-induced adverse effects in children with severe asthma. *J Allergy Clin Immunol* 2000; 106: 651-9.

219. Lane NE, Lukert B. The science and therapy of glucocorticoid induced bone loss. *Endocrinol Metab Clin North Am* 1998; 27: 465-483.

220. van Staa TP, Leufkens HGM, Abenheim L et al. Use of oral corticosteroids and risk of fractures. *J Bone Miner Res* 2000; 15: 993-1000.

221. Kubota S, Moritani NH, Kawaki H et al. Transcriptional induction of connective tissue growth factor/hypertrophic chondrocyte-specific 24 gene by dexamethasone in human chondrocytic cells. *Bone* 2003; 33: 694-702.

222. Gronowicz G, McCarthy MB, Raisz LG. Glucocorticoids stimulate resorption in fetal rat parietal bones in vitro. *J Bone Miner Res* 1990; 5: 1223-1230.

223. Shuto T, Kukita T, Hirata M et al. Dexamethasone stimulates osteoclast-like cell formation by inhibiting granulocyte-macrophage clony-stimulating factor production in mouse bone marrow cultures. *Endocrinology* 1994; 134: 1121-1126.

224. Conoway HH, Grigori D, Lerner UH. Stimulation of neonatal mouse calvarial bone resorption by the glucocorticoids hydrocortisone and dexamethasone. *J Bone Miner Res* 1996; 11: 1419-1429.

225. Canalis E. Mechanism of glucocorticoid action in bone: Implication for glucocorticoid-induced osteoporosis. *J Clin Endocrinol Metab* 1996; 81: 3441-3447.

226. Beavan S, Horner A, Bord S et al. Colocalization of glucocorticoid and mineralcorticoid receptors in human bone. *J Bone Miner Res* 2001; 16: 1496-1505.

227. Abu EO, Horner A, Kusec V et al. The localisation of the functional glucocorticoid receptor alpha in human bone. *J Clin Endocrinol Metab* 2000; 85: 883-889.

228. Dempster DW, Moonga BS, Sterin LS et al. Glucocorticoids inhibit bone resorption by isolated rat osteoclasts by enhancing apoptosis. *J Endocrinol* 1997; 154: 397-406.

229. Agarwal MK, Mirshahi M. General overview of mineralcorticoid hormone action. *Pharmacol Ther* 1999; 84: 273-326.

230. Govindan MV, Leclerc S, Roy R et al. Differential regions of mouse mammary tumor virus-bacterial chloramphenicol acetyltransferase chimeric gene by human mineralcorticoid hormone-receptor complexes. *J Steroid Biochem Mol Biol* 1991; 39: 91-103.

231. Reid IR. Glucocorticoid-induced osteoporosis. *Baillieres Best Pract Res Clin Endocrinol Metab* 2000; 14: 279-98.

232. Patschan D, Loddenkemper K, Buttgereit F. Molecular mechanisms of glucocorticoid-induced osteoporosis. *Bone* 2001; 29: 498-505.

233. Lukert BP, Kream BE. Clinical and basic aspects of glucocorticoid action in bone. In: Bilezikian JP, Raisz LG, Rodan GA, editors. Principles of bone biology, San Diego, CA: Academic Press; 1996: 533-548.

234. Lukert BP, Raisz LG. Glucocorticoid-induced osteoporosis: Pathogenesis and management. *Ann Intern Med* 1983; 309: 265-8.

235. Doerr P, Pirke KM. Cortisol-induced suppression of plasma testosterone in normal adult males. *J Clin Endocrinol Metab* 1976; 43: 622-9.

236. Loddenkemper K, Bohl N, Perka C et al. Correlation of diffrent bone markers with bone density in patients with rheumatic diseases on glucocorticoid therapy. *Rheumatology Inter Clinical and Exp* 2006; 26: 331-336.

237. LoCascio V, Bonucci E, Imbimbo B et al. Bone loss in response to long-term glucocorticoid therapy. *Bone Miner* 1990; 8: 39-51.

238. Sambrook PN, Cohen ML, Eisman JA et al. Effects of low-dose corticosteroids on bone mass in rheumatoid arthritis: a longitudinal study. *Ann Rheum Dis* 1989; 48: 535-8.

239. Laan RFJM, Van Riel PLCM, Van de Putte LBA. Low-dose prednisolon induced rapid reversible axial bone loss in patients with rheumatoid arthritis. *Annals of Internal Medicine* 1993; 119: 963-968.

240. Verstraeten A, Dequeker J, Nijs J et al. Prevention of postmenopausal bone loss in rheumatoid arthritis patient. A two-year prospective study. *Clin Exp Rheumatol* 1989; 7: 351-8.

241. McKenzie R, Reynolds JC, O'Fallon A et al. Decreased bone mineral density during low-dose glucocorticoid administration in a randomized, placebo controlled trial. *J Rheumatol* 2000; 27: 2222-6.

242. Dequeker J, Westhovens R. Low-dose corticosteroid associated osteoporosis in rheumatoid arthritis and its prophylaxis and treatment: Bones of contention. *J Rheumatol* 1995; 22: 1013-9.

243. Spector TD, Sambrook PN. Steroid osteoporosis. *Br Med J* 1993; 307: 519-20.

244. Cooper C. Osteoporosis in rheumatological practice: questions to be answerd. *Ann Rheum Dis* 1995; 54: 1-2.

245. Henderson NK, Sambrook PN. Relationship between osteoporosis and arthritis and effect of corticosteroids and other drugs on bone. *Curr Opin Rheumatol* 1996; 8: 365-9.

246. Eastell R, Reid DM, Compston J et al. A UK consensus group on management of glucocorticoid induced osteoporosis: an update. *J Intern Med* 1998; 244: 271-92.

247. Laan RF, van Riel PL, van Erning LJ et al. Vertebral osteoporosis in rheumatoid arthritis patients: effect of low-dose prednisone therapy. *Br J Rheumatol* 1992; 31: 91-6.

248. Felder M, Ruegsegger P. Bone loss in patients with rheumatoid arthritis–effect of steroids measured by low-dose quantitative computed tomography. *Rheumatol Int* 1991; 11: 41-4.

249. Buckley LM, Leib ES, Carularo KS et al. Effects of low-dose corticosteroids on the bone mineral density of patients with rheumathoid arthritis. *J Rheumatol* 1995; 22: 1055-1059.

250. Israel E, Banerjee TR, Fitzmaurice GM et al. Effects of inhaled glucocorticoids on bone density in premenopausal women. *N Engl J Med* 2001; 345: 941-947.

251. Espallargues M, Sampietro-Colom L, Estrada MD et al. Identifying bone-mass-related risk factors for fracture to guide bone densitometry measurements: a systematic review of the literature. *Osteoporos Int* 2001; 12: 811-22.

252. Kanis JA, Johnell O, Oden A et al. Ten year probabilities of osteoporotic fractures according to BMD and diagnostic thresholds. *Osteoporos Int* 2001; 12: 989-995.105

253. Gough AK, Lilley J, Eyre S et al. Generalised bone loss in patients with early rheumatoid arthritis. *Lancet* 1994; 344: 23- 27.269

254. Shibuya K, Hagino H, Morio Y et al. Cross-sectional and longitudinal study of osteoporosis in patients with rheumatoid arthritis. *Clin Rheumatol* 2002; 21: 150-8.

255. Jones G, Nguyen T, Sambrook P et al. Progressive loss of bone in the femoral neck in elderly people: longitudinal findings from the Dubbo osteoporosis epidemiology study. *Br Med J* 1994; 309: 691–695.

256. Ensrud KE, Palermo L, Black DM et al. Hip and calcaneal bone loss increase with advancing age: longitudinal results from the study of osteoporotic fractures. *J Bone Min Res* 1995; 10: 1778–1787.

257. Riggs BL, Khosla S, Melton LJ. A unitary model for involutional osteoporosis: Estrogen deficiency causes both Type 1 and Type 2 osteoporosis in postmenopausal women and contributes to bone loss in ageing men. *J Bone Min Res* 1998; 13: 763–773.

258. Zonneveld IM, Bakker WK, Dijkstra PF et al. Methotrexate osteopathy in long-term, low-dose methotrexate treatment for psoriasis and rheumatoid arthritis. *Arch Dermatol* 1996; 132: 184-7.

259. Yoshida M, Kanno Y, Ishisaki A et al. Methotrexate suppresses inflammatory agonist induced interleukin 6 synthesis in osteoblasts. : *J Rheumatol* 2005; 32: 787-95.

260. Nguyen TV, Sambrook PN, Eisman JA. Bone loss, physical activity, and weight change in elderly women: the Dubbo osteoporosis epidemiology study. *J Bone Min Res* 1998; 13: 1458–1467.

261. Frost HM. On our age-related bone loss: insights from a new paradigm. *J Bone Min Res* 1997; 12: 1539–1546.

262. Baron JA. Smoking and estrogen related disease. *Am J Epidemiol* 1984; 119: 9–22.

263. Ensrud KE, Lipschutz RC, Cauley JA et al. Body size and hip fracture risk in older women: a prospective study. Study of Osteoporotic Fractures Research Group. . *Am J Med* 1997; 103: 274–280.

264. Ensrud KE, Cauley J, Lipschutz R et al. Weight change and fractures in older women. Study of Osteoporotic Fractures Research Group. . *Arch Int Med* 1997; 157: 857–863.

265. Hunter DJ, Sambrook PN. Bone loss. Epidemiology of bone loss. *Arthritis Res* 2000; 2: 441-5.

266. Greenspan SL, Parker RA, Ferguson L et al. Early changes in biochemical markers of bone turnover predict the long-term response to alendronate therapy in representative elderly women: a randomized clinical trial. *J Bone Miner Res*1998; 13: 1431-1438.

267. Civitelli R, Gonnelli S, Zacchei F et al.- Bone turnover in postmenopausal osteoporosis: effect of calcitonin treatment. *J Clin Invest* 1988; 82: 1268- 1274.

268. Chesnut CH III, Bell NH, Clark GS. Hormone replacement therapy in postmenopausal women: urinary N-telopeptid of collagen monitors therapeutic effect and predicts response of bone mineral density. *Am J Med* 1997; 102: 29- 37.

269. Garnero P, Sornay-Rendu E, Claustrat B et al. Biochemical markers of bone turnover, endogenous hormones and the risk of fractures in postmenopausal women: The OFELY study. *J Bone Miner Res* 2000; 15: 1526- 1536.

270. Ross PD, Kress BC, Parson RE et al. Serum bone alkaline phosphatase and calcaneus bone density predicts fractures: a prospective study. *Osteoporos Int* 2000; 11: 76- 82.

271. Looker AC, Bauer DC, Chesnut CH III et al. Clinical use of biochemical markers of bone remodeling: current status and future directions. *Osteoporos Int* 2000; 11: 467- 480.

272. Garnero P, Mulleman D, Munoz F et al. Long-term variability of markers of bone turnover in postmenopausal women and implication for their clinical use: The OFELY study. *J Bone Miner Res* 2003; 18: 1789- 1794.

273. Jensen JEB, Sorensen HA, Kollerup G et al. Biological variation of bioschemical bone markers. *Scand J Clin Lab Invest* 1994; 54 (Suppl 219): 36-39.

274. Popp-Snijder C, Lips P, Netelenbos JC. Intra-individual variation in bone resorption markers in urine. *Ann Clin Biochem* 1996; 33: 347- 348.

275. Schlemmer A, Hassager Ch, Jensen SB et al. Marked diurnal variation in urinary excretion of pyridinium cross-links in postmenopausal women. *J Clin Endocrinol Metab*1992; 74: 476- 480.

276. Nielsen HK, Brixen K, Mosekilde L. Diurnal rhythm and 24-hour integrated concentrations of serum osteocalcin in normals: influence of age, sex, season, and smoking habits. *Calcif Tissue Int* 1990; 47: 284-290.

277. Woitge HW, Schneidt-Nave C, Kissling C et al. Seasonal variation of biochemical indexes of bone turnover: results of a population-based study. *J Clin Endocrinol Metab* 1998; 83: 68- 75.

278. Blumshon A, Naylor KE, Timm W et al. Absence of marked seasonal changes in bone turnover: a longitudinal and multicenter cross-sectional study. *J Bone Miner Res* 2003; 18: 1274-1281.

279. Scheven BA, van der Veen MJ, Damen CA et al. Effects of methotrexate on human osteoblasts in vitro: modulation by 1,25-dihydroxyvitamin D3. *J Bone Miner Res* 1995 Jun;10(6):874-80.

280. May KP, Mercill D, McDermott MT et al. The effect of methotrexate on mouse bone cells in culture. *Arthritis Rheum* 1996; 39: 489-94.

281. El Miedany YM, Abubakr IH, El Baddini M. Effect of low-dose methotrexate on markers of bone metabolism in patients with rheumatoid arthritis. *J Rheumatol* 1998; 25: 2083-7.

282. Garnero P, Sornay-Rendu E, Chapuy M-C et al. Increase bone turnover in late postmenopausal women is a major determinant of osteoporosis. *J Bone Miner Res* 1996; 11: 337-349.

283. Redlich K, Ziegler S, Kiener HP et al. Bone mineral density and biochemical parameters of bone metabolism in female patients with systemic lupus erythematosus. *Ann Rheum Dis* 2000; 59: 308-310.

284. Franck H, Ittel TH, Tasch O et al. Osteocalcin in patients with rheumatoid arthritis-effect of anatomical stages, inflammatory activity and therapy. *Rheumatol Int* 1992; 12: 207-11.

285. Gram J, Junker P, Nielsen HK et al. Effects of short-term treatment with prednisolone and calcitriol on bone and mineral metabolism in normal men. *Bone* 1998; 23: 297- 302.

286. Verhoeven AC, Boers M, Koppele JM et al. Bone turnover, joint damage and bone mineral density in early rheumatoid arthritis treated with combination therapy including high-dose prednisolon. *Rheumatology (Oxford)* 2001; 40: 1231- 1237.

287. Gough AKS, Peel NFA, Eastell R et al. Excretion of pyridinium crosslinks correlates with disease activity and appendicular bone loss in early rheumatoid arthritis. *Ann Rheum Dis* 1994; 53: 14- 17.

288. Black D, Marabani M, Sturrock RD et al. Urinary excretion of hydroxy-pyridinium crosslinks of collagen in patients with rheumatoid arthritis. *Ann Rheum Dis* 1989; 48: 41-44.

289. Spector TD, James IT, Hall GM et al. Increase levels of urinary collagen crosslinks in females with rheumatoid arthritis. *Clin Rheumatol* 1993; 12: 240-244.

290. Müller A, Jakob K, Hein GE. Evaluation of free and peptide bound collagen crosslink excretion in different skelet diseases. *Ann Rheum Dis* 2003; 62: 65- 67.

291. Eriksen EF, Hodgson SF, Eastell R et al. Cancellous bone remodelling in type 1 (postmenopausal) osteoporosis: quantitative assessment of rates of formation, resorption and bone loss at tissue and cellular levels. *J Bone Min Res* 1990; 5: 311–319.

292. Meunier PJ, Sellami S, Briancon D et al. Histological heterogeneity of apparently idiopathic osteoporosis. Osteoporosis - Recent Advances in Pathogenesis and Treatment. Edited by Deluca HF, Frost HM, Jee WSS, Johnston CC, Parfitt AM. Baltimore: University Park Press; 1990. pp. 293–301.

293. Chesney RW, Mazess RB, Hamstra AJ et al. Reduktion of serum-1,25-dihydroxyvitamin-D_3 in children receiving glucocorticoids. *Lancet* 1978; 2: 1123-1125.

294. Braun JJ, Juttmann JR, Visser TJ et al. Short-term effect of prednisone on serum 1,25-dihydroxyvitamin D in normal individuals and in hyper- and hypoparathyroidism. *Clin Endocrinol (Oxf)* 1982; 17: 21-28.

295. Wemeau JL. Calcitropic hormones and ageing. *Horm Res* 1995; 43: 76-79.

296. Findling JW, Adams ND, Lemann J et al. Vitamin D metabolites and parathyroid hormone in Cushing's Syndrome: Relationship to calcium and phosphorus homeostasis. *J Clin Endocrinol Metab* 1982; 54: 1039-1044.

297. Spanos E, Colston KW, MacIntyre I. Effect of glucocorticoids on vitamin D metabolism. *FABS Lett* 1977; 73-76.

298. Blahos J, Care AD, Sommerville BA. The effect of betamethasone on duodenal calcium absorption and 1,25-dihydroxy vitamin D_3 production in the chick. *Horm Metab Res* 1983; 15: 197-200.

299. Keiser K, Kley HK. Cortisontherapie. Corticoide in Klinik und Praxis. Stuttgart New York 2002.

300. Fraser R, Ingram MC, Anderson NH et al. Cortisol effects on body mass, blood pressure, and cholesterol in the general population. *Hypertension* 1999; 33: 1364-1368.

301. Rosmond R, Dallman MF, Björntorp P. Stress-related cortisol secretion in mea: Relationships with abdominal obesity and endocrine, metabolic and hemodynamic abnormalities. *J Clin Endocrinol Metab* 1998; 83: 1853-1859.

302. Beentjes JAM, Van Tol A, Sluiter WJ et al. Decreased plasma cholesterol esterification and cholesteryl ester transfer in hypopituitary patients on glucocorticoid replacement therapy. *Scand J Clin Lab Invest* 2000; 60; 189-198.

303. Ferraris JR, Pasqualini T, Legal S et al. Effect of deflazacort versus methylprednisolone on growth, body composition, lipid profile, and bone mass after renal transplantation. *Pediatr Nephrol* 2000; 14: 682-688.

304. da Cuhna SF, dos Santos VM, Monteiro JP et al. Serum lipids of pemphigius foliaceus patients on long-term glucocorticoid therapy. *Rev Soc Bras Med Trop* 2003; 36: 1-4.

305. Formiga F, Meco JF, Pinto X et al. Lipid and lipoprotein levels in premenopausal systemic lupus erythematosus patients. *Lupus* 2001; 10: 359-363.

306. Taskinen M-R, Kuusi T, Yki-Järvinen H et al. Short-term effects of prednisone on serum lipids and high density lipoprotein subfractions in normolipidemic healthy men. *J Clin Endocrinol Metab* 1988; 67: 291-299.

307. Ettinger WH, Klinefelter HF, Kwiterovitch PO. Effect of short-term, low-dose corticoids on plasma lipoprotein lipids. *Atherosclerosis* 1987; 63: 167-172.

308. Ettinger WH, Hazzard WR. Prednisone increases very low density lipoprotein and high density lipoprotein in healthy men. *Metabolism* 1988; 37: 1055-1058.

309. Zimmerman J, Fainaru M, Eisenberg S. The effects of prednisone therapy on plasma lipoproteins and alipoproteins: A prospective study. *Metabolism* 1984; 33: 521-526.

310. Ettinger WH, Bender WL, Goldberg AP et al. Lipoprotein lipid abnormalities in healthy renal transplant recipients: persistence of low HDL_2 cholesterol. *Nephron* 1987; 47: 17-21.

311. Cattran DC, Steiner G, Wilson DR et al. Hyperlipidemia after renal transplantation: natural history and pathophysiology. *Ann Intern Med* 1979; 91: 554-559.

312. Ettinger WH, Hazzard WR. Elevated apolipoprotein-b levels in corticosteroid-treated patients with systemic lupus erythematosus. *J Clin Endocrinol Metab* 1988; 67: 425-428.

313. Svenson KLG, Lithell H, Hällgren R et al. Serum lipoprotein in active rheumatoid arthritis and other chronic inflammatory arthritides. II. Effects of anti-inflammatory and disease-modifying drug treatment. *Arch Intern Med* 1987; 147: 1917-1920.

314. Krausz Y, Bar-On H, Shafrir E. Origin and pattern of glucocorticoid-induced hyperlipidemia in rats. Dose-dependent bimodal changes in serum lipids and lipoproteins in relation to hepatic lipogenesis and tissue lipoprotein lipase activity. *Biochim Biophys Acta* 1981; 663: 69-82.

315. El-Shaboury AH, Hayes TM. Hyperlipidaemia in asthmatic patients receiving long-term steroid therapy. *Br Med J* 1973; 2: 85-86.

316. Blum RL. Computer-assistend design of studies using routine clinical data. *Ann Intern Med* 1986; 104: 858-868.

317. Stern MP, Kolterman OG, Fries JF et al. Adrenocortical steroid treatment of rheumatic diseases. *Arch Intern Med* 1973; 132: 97-101.

318. Zimmerman J, Kaufmann NA, Fainaru M et al. Effect of weight loss in moderate obesity on plasma lipoprotein and alipoprotein levels and on high density lipoprotein composition. *Atheriosclerosis* 1984; 4: 115-123.

319. Lee YH, Choi SJ, Ji JD et al. Lipoprotein(a) and lipids in relation to inflammation in rheumatoid arthritis. *Clin Rheumatol* 2000; 19: 324-325.

320. Svenson KLG, Lithell H, Hällgren R et al. Serum lipoprotein in active rheumatoid arthritis and other chronic inflammatory arthritides. I. Relativity to inflammatory activity. *Arch Intern Med* 1987; 147: 1912-1916.

321. Dessein PH, Stanwix AE, Joffe BI. Cardiovascular risk in rheumatoid arthritis versus osteoarthritis: acute phase response related decreased insulin sensitivity and high-density lipoprotein cholesterol as well as clustering of metabolic syndrome features in rheumatoid arthritis. *Arthritis Res* 2002; 4: R5.

322. Leong KH, Koh EET, Feng PH et al. Lipid profiles in patients with systemic lupus erythematosus. *J Rheumatol* 1994; 21: 1264-1267.

323. Ettinger WH, Goldberger AP, Applebaum-Bowden D et al. Dyslipoproteinemia in systemic lupus erythematosus. Effect of corticosteroids. *Am J Med* 1987; 83: 503-508.

324. Ilowite NT, Samuel P, Ginzler E et al. Dyslipoproteinemia in pediatric systemic lupus erythematosus. *Arthritis Rheum* 1988; 31: 859-863.

325. Boers M, Nurmohamed MT, Doelman CJA et al. Influence of glucocorticoids and disease activity on total and high density lipoprotein cholesterol in patients with rheumatoid arthritis. *Ann Rheum Dis* 2003; 63: 842-845.

326. Amin D, Cornell SA, Gustafson SK et al. Bisphosphonates used for the treatment of bone disorders inhibit squalene synthase and cholesterol biosynthesis. *J Lipid Res* 1992; 33: 1657-63.

327. Wallberg-Jonsson S, Ohman M, Rantapaa-Dahlqvist S. Which factors are related to the presence of atherosclerosis in rheumatoid arthritis? *Scand J Rheumatol* 2004; 33: 373-9.

328. Hellenius ML, Nilsson P, Elofsson S et al. Reduction of high cholesterol levels associated with younger age and longer education in a primary health care programme for cardiovascular prevention. *Scand J Prim Health Care* 2005; 23: 75-81.

329. Ye P, Wang ZJ, Zhang XJ et al. Age-related decrease in expression of peroxisome proliferator-activated receptor alpha and its effects on development of dyslipidemia. *Chin Med J* 2005; 118: 1093-8.

330. Bijlima JW, van Everdingen AA, de Nijs RN et al. Glucocorticoids in rheumatoid arthritis: effects on erosions and bone. *Ann N Y Acad Sci* 2002; 966: 82-90**.**

331. Cohen MD and Conn DL. Benefits of low-dose corticosteroids in rheumatoid arthritis*. Bull Rheum Dis* 1997; 46: 4-7**.**

332. Kirwan JR. Systemic low-dose glucocorticoid treatment in rheumatoid arthritis. *Rheum Dis Clin North Am* 2001; 27: 389-403.

333. van Everdinger AA, Jacobs JW, Siewertsz van Reesema DR et al. Low-dose prednisone therapy for patients with early active rheumatoid arthritis: clinical efficacy, disease-modifying properties, and side effects: a randomized, double-blind, placebo-controlled clinical trial. *Ann Intern Med* 2002; 136: 1-12.

334. Tugwell P, Wells G, Strand V et al. Leflunomide Rheumatoid Arthritis Investigators Group. Clinical improvement as reflected in measures of function and health-related quality of life following treatment with leflunomide compared with methotrexate in patientswith rheumatoid arthritis: sensitivity and relative efficiency to detect a treatment effect in a twelve-month, placebo-controlled trial. *Arthritis Rheum* 2000; 43: 506-514.

335. Talamo J, Frater A, Gallivan S et al. Use of the Short Form 36 for health status maesurement in rheumatoid arthritis. *Br J Rheumatol* 1997; 36: 463-9.

336. Terpigerov SA, Il'chenko VA, Vasilenko IA et al. Correlation between the results of glucocorticoid therapy and in vitro effect of glucocorticoids on monocytes in asthma. *Bull Exp Biol Med* 2003; 135: 582-585.

337. Rohleder N, Wolf JM, Kirschbaum C. Glucocorticoid sensitivity in humans-interindividual differences and acute stress effects. *Stress* 2003; 6: 207-222.

338. Huisman AM, Siewertsz van Everdingen AA, Wenting MJ et al. Glucocorticoid receptor up-regulation in early rheumatoid arthritis treated with low-dose prednisolone or placebo. *Clin Exp Rheumatol* 2003; 21: 217-220.

339. Raddatz D, Middel P, Bockemuhl M et al. Glucocorticoid receoptor expression in inflammatory disease: evidence for a mucosal down-regulation in steroid-unresponsive ulcerative colitis. *Aliment Pharmacol Ther* 2004; 19: 47-61.

340. Onda K, Rimbara E, Hirano T et al. Role of mRNA expression of transcription factors in glucocorticoid sensitivity of peripherial blood mononuclear cells and disease state in rheumatoid arthritis. *J Rheumatol* 2004; 31: 464-469.

341. Carlotti AP, Franco PB, Elias LL et al. Glucocorticoid receptors, in vitro steroid sensitivity, and cytokine secretion in idiopathic nephritic syndrome. *Kidney Int* 2004; 65: 403-408.

342. van Rossum EF, Lamberts SW. Polymorphism in the glucocorticoid receptor gene and their associations with metabolic parameters and body composition. *Recent Prog Horm Res* 2004; 59: 333-357.

343. Vermeer H, Hendriks-Stegeman BI, Verrijn Stuart AA et al. A comparition of in vitro bioassays to determine cellular glucocorticoid sensitivity. *Eur J Endocrinol* 2004; 150: 41-47.

344. Tripathi RC, Parapuram SK, Tripathi BJ et al. Corticosteroids and glaucoma risk. *Drugs Aging* 1999; 15: 439-450.

345. Kitazawa Y, Horie T. The prognosis of corticosteroid-responsive individuals. *Arch Ophthalmol* 1981; 99: 819-823.

346. Becker B, Mills DW. Corticosteroids and intraocular pressure. *Arch Ophthalmol* 1963; 70: 500-507.

347. Linnér E, Strömberg U. Ocular hypertension: A five-years study of the total population in Swedish town, Skovde, in Leydhecker W (ed): Glaucoma Symposium: Tutzing Castle 1966. New York.

348. Nørskov K: Routine tonometry in ophthalmic practice: II. Five-year follow-up. *Acta ophthalmol* 1970; 48: 873-895.

349. Kishida A. Mass examination for glaucoma: A 12 year follow up. *Nippon Ganka Gakkai Zasshi* 1973; 77: 1578-1592.

350. Schwartz B, Talusan AG. Spontaneous trends of ocular pressure in untreated ocular hypertension. *Arch Ophthalmol* 1980; 98: 105-111.

351. Armaly MF. Effect of corticosteroids on ocular pressure and fluid dynamics. I. The effect of dexamethasone in the normal eye**.** *Arch Ophthalmol* 1963; 70: 88-97.

352. Bigger JF, Palmberg PF, Zink HA. In vitro corticosteroid: correlation response with primary open-angle glaucoma and ocular corticosteroid sensitivity. *Am J Ophthalmol* 1975; 79: 92-97.

353. Bigger JF, Palmberg PF, Becker B. Increased cellular sensitivity to glucocorticoids in primary open angle glaucoma. *Invest Ophthalmol Vis Sci* 1972; 11: 832-837.

354. Foon K, Yuen K, Ballintine E et al. Analysis of the systemic corticosteroid sensitivity of patients with primary open angle glaucoma. *Am J Ophthalmol* 1977; 83: 167-173.

355. Stokes J, Walker BR, Campbell JC et al. Altered peripherial sensitivity to glucocorticoids in primary open-angle glaucoma. *Invest Ophthalmol Vis Sci* 2003; 44: 5163-5167.

356. Becker B, Mills DW. Elevated intraocular pressure following corticosteroids eye drops. *JAMA* 1963; 185: 884-886.

357. Huizenga NATM, Koper JW, Delange P et al. A polymorphism in the glucocorticoid receptor gene may be associated with an increase sensitivity to glucocorticoids in vivo. *J Clin Endocrinol Metab* 1998; 83: 144-151.

358. New MI, Nimkarn S, Brandon DD et al. Resistance to several steroids in two sisters. *J Clin Endocrinol Metab* 1999; 84: 4454-4464.

359. van Rossum EFC, Koper JW, Huizenga NATM et al. A polymorphism in the glucocorticoid receptor gene, which decreases sensitivity to glucocorticoids in vivo, in associated with low insulin and cholesterol levels. *Diabetes* 2002; 51: 3128-3134.

360. Di Blasio AM, van Rossum EFC, Maestrini S et al. The relation between two polymorphism in the glucocorticoid receptor gene and body mass index, blood pressure and cholesterol in obese patients. *Clin Endocrinol (Oxf)* 2003; 59: 68-74.

361. Harris H McIlwain. Glucocorticoid-induced osteoporosis: pathogenesis, diagnosis, and management *Preventive Medicine* 2003; 36: 243–249.

362. Dissemond J, Schneider LA, Wlaschek M et al. The lazaroid tirilazad is a new inhibitor of direct and indirect UVA-induced lipid peroxidation in human dermal fibroblast. *Arch Dermatol Res* 2003; 295: 287-292.

363. Alexander NJ, Kim HK, Blye RR et al. Steroid specificity of the human sperm membrane progesterone receptor. *Steroids* 1996; 61: 116- 125.

364. Lieberherr M, Grosse B. Androgens increase intracellular calcium concentration and inositol 1, 4, 5- triphosphate and diacylglycerol formation via a pertussis toxin-sensitive G-protein. *J Biol Chem* 1994; 269: 7217- 7223.

365. Lagrenge AH, Wagner EJ, Ronnekleiv OK et al. Estrogen rapidly attenuates a $GABA_B$ response in hypothalamic neurons. *Neuroendocrinology* 1996; 64: 114- 123.

366. Demirgoren S, Majewska MD, Spivak CE et al. Receptor binding and elektrophysiological effects of dehydroepiandrosterone sulfate, and antagonist of the $GABA_A$ receptor. *Neuroscience* 1991; 45: 127- 135.

367. Tesarik J, Mendoza C, Moos J et al. Progesterone action through aggregation of a receptor on the sperm plasma membrane. *FEBS Lett* 1992: 308; 116- 120.

368. Bression D, Michard M, Le Dafniet M et al. Evidence for a specific estradiol binding site on rat pituitary membranes. *Endocrinology* 1986; 1048- 1051.

369. Wehling M, Christ M, Theisen K. High affinity aldosterone binding to plasma membrane rich fraction from mononuclear leukocytes: ist her a membrane receptor for mineralcorticoids? *Biochem Biophys Res Commun* 1991; 181: 1306- 1312.

370. Nemere I, Dormanen MC, Hammond MW et al. Identification of the specific binding protein for 1 alpha, 25-dihydroxyvitamin D3 in basal-lateral membranes of chick intestinal epithelium and relationship to transcaltachia. *J Biol Chem* 1994; 269: 23750- 23756.

371. Rotsztejn W, Dussaillant M, Nobou M et al. Rapid glucocorticoid inhibition of vasoactive intestinal peptide-induced cyclic AMP accumulation and prolactin release in rat pituitary cells in culture. *Proc Natl Acad Sci USA* 1981; 78: 7584- 7588.

372. Borski RJ, Helms LMH, Richaman HR et al. Cortisol rapidly reduces prolactin release and cAMP and 45Ca2+ accumulation in the cichlid fish pituitary in vitro.. Proc Natl Acad Sci USA 1991; 88: 2758- 2762.

373. Iwasaki Y, Aoki Y, Katahira M et al. Non-genomic mechanisms of glucocorticoid inhibition of adrenocorticotropin secretion: possible involvement of GTP-binding protein. *Biochem Biophys Res Commun* 1997; 235 : 295- 299.

374. Zhu BG, Zhu DH, Chen YZ. Rapid enhancement of high affinity glutamate uptake by glucocorticoids in rat cerebral cortex synaptosomes and human neuroblastoma clone SK-N-SH: possible involvement of G-protein. *Biochem Biophys Res Commun* 1998 ; 247 : 261- 265.

375. Qiu J, Lou LG, Huang XY et al.Nongenomic mechanisms of glucocorticoid inhibition of nicotine-induced calcium influx in PC12 cells: involvement of protein kinase C. *Endocrinology* 1998 ; 139 : 5103- 5108.

376. Chen Y-Z, Qui J. Plejotropic signaling pathways in rapid, nongenomic action of glucocorticoid. *Mol Cell Biol Res Commun* 1999; 2: 145-149.

377. Berki T, Kumanovics G, Kumanovics A et al. Production and flow cytometric application of a monoclonal anti-glucocorticoid receptor antibody. *J Immunol Methods* 1998; 214: 19-27.

378. Scheffold A, Assenmacher M, Reiners-Schramm L et al. High-sensitivity immunofluorescence for detection of the pro- and anti-inflammatory cytokines gamma interferon and interleukin-10 on the surface of cytokine-secreting cells. *Nat Med* 2000; 6:107-10.

379. Scheffold A, Miltenyi S, Radbruch A. Magnetofluorescent liposomes for increased sensitivity of immunofluorescence. *Immunotechnology* 1995; 1: 127-37.

380. Benten WP, Stephan C, Wunderlich F. B cells express intracellular but not surface receptors for testosterone and estradiol. *Steroids* 2002; 67: 647-54.

381. Benten WP, Becker A, Schmitt-Wrede HP et al. Developmental regulation of intracellular and surface androgen receptors in T cells. *Steroids* 2002; 67: 925-31.

382. Schottelius A, Wedel S, Weltrich R et al. Higher expression of glucocorticoid receptor in peripheral mononuclear cells in inflammatory bowel disease. *Am J Gastroenterol* 2000; 95: 1994-9.

383. Schlaghecke R, Kornely E, Wollenhaupt J et al. Glucocorticoid receptors in rheumatoid arthritis. *Arthritis Rheum* 1992; 35: 740-4.

384. Bowness P, Zaccai N, Bird L et al. HLA-B27 and disease pathogenesis: new structural and functional insights. *Expert Rev Mol Med* 1999; 26:1-10.

385. Trevino MA, Teixeiro E, Bragado R. CD8+ T cells oligoclonally expanded in synovial fluid at onset of spondyloarthropathy selectively proliferate in response to self-antigens: characterization of cell specificities in monclonal populations. *J Rheumatol* 2004; 31:1962-72.

386. Zou J, Appel H, Rudwaleit M et al. Analysis of the CD8+ T cell response to the G1 domain of aggrecan in ankylosing spondylitis. *Ann Rheum Dis* 2005; 64: 722-9.

387. Braun J, Brandt J, Listing J et al. Treatment of active ankylosing spondylitis with infliximab: a randomised controlled multicentre trial. *Lancet* 2002; 359: 1187-1193.

388. Stone M, Salonen D, Lax M et al. Clinical and imaging correlates of response to treatment with infliximab in patients with ankylosing spondylitis. *J Rheumatol* 2001; 28: 1605-14.

389. Brandt J, Westhoff G, Rudwaleit M et al. Validierung einer deutschen Version des Fragebogens BASDAI zur Messung der Krankheitsaktivität bei ankylosierender Spondylitis. *Z Rheumatol* 2003; 62: 264-273.

390. Bönisch A, Ehlebracht-König I. Der BASDAI-D – ein Fragebogen zur Erfassung der Krankheitsaktivität bei Spondylitis ankylosans und verwandten Erkrankungen. *Z Rheumatol* 2003; 62: 251-263.

391. Bostan EE, Borman P, Bodur H et al. Functional disability and quality of life in patients with ankylosing spondylitis. *Rheumatol Int* 2003; 23: 121-126.

392. Huang F, Gu J, Zhao W et al. One-year open-label trial of thalidomide in ankylosing spondylitis. *Arthritis Rheum* 2002; 47: 249-254.

393. Speden DJ, Calin AI, Ring FJ et al. Bone mineral density, calcaneal ultrasound, and bone turnover markers in women with ankylosing spondylitis. *J Rheumatol* 2002; 29: 16-21.

394. Spoorenberg A, van der Heijde D, Klerk E et al. Relative value of erythrocyte sedimentation rate and C-reactive protein in assessment of disease activity in ankylosing spondylitis *J Rheumatol* 1999; 21: 980-984.

395. Maksymowych WP, Jhangri GS, Fitzgerald AA et al. A six-month randomized, controlled, double-blind, dose-response comparition of intravenous pamidronate (60mg versus 10 mg) in the treatment of nonsteroidal antiinflammatory drug-refractory ankylosing spondylitis. *Arthritis Rheum* 2002; 46: 766-73.

396. Brandt J, Haibel H, Cornely D et al. Successful treatment of activ ankylosing spondylitis with the anti-tumor necrosis factor alpha monoclonal antibody infliximab. *Arthritis Rheum* 2000; 43: 1346-52.

397. Tanaka H, Akama H, Ichikawa Y et al. Glucocorticoid receptor in patients with lupus nephritis: relationship between receptor levels in mononuclear leukocytes and effect of glucocorticoid therapy. *J Rheumatol* 1992; 19: 878-83.

398. Gladman DD, Urowitz MB, Doris F et al. Glucocorticoid receptors in systemic lupus erythematosus. *J Rheumatol* 1991; 18: 681-4.

399. Ridley MG, Kingsley G, Pitzalis C et al. Monocyte activation in rheumatoid arthritis: evidence for in situ activation and differentiation in joints. *Br J Rheumatol* 1990; 29: 84-8.

400. Highton J, Carlisle B, Palmer DG. Changes in the phenotype of monocytes/macrophages and expression of cytokine mRNA in peripheral blood and synovial fluid of patients with rheumatoid arthritis. *Clin Exp Immunol* 1995; 102: 541-6.

401. Pipitone N, Jolliffe VA, Cauli A et al. Do B cells influence disease progression in chronic synovitis? Lessons from primary hypogammaglobulinaemia. *Rheumatology* 2000; 39: 1280-5.