

# Literaturverzeichnis

- [1] Medzhitov, R. and Janeway, J., C. A. **Innate immunity: impact on the adaptive immune response.** *Curr Opin Immunol*, 9(1):4–9, 1997
- [2] Melchers, F., Rolink, A. G., et al. **The role of chemokines in regulating cell migration during humoral immune responses.** *Cell*, 99(4):351–4, 1999
- [3] Moser, B. and Loetscher, P. **Lymphocyte traffic control by chemokines.** *Nat Immunol*, 2(2):123–8, 2001
- [4] Mackay, C. R. **Chemokines: immunology's high impact factors.** *Nat Immunol*, 2(2):95–101, 2001
- [5] Devergne, O., Marfaing-Koka, A., et al. **Production of the RANTES chemokine in delayed-type hypersensitivity reactions: involvement of macrophages and endothelial cells.** *J Exp Med*, 179(5):1689–94, 1994
- [6] Rand, M. L., Warren, J. S., et al. **Inhibition of T cell recruitment and cutaneous delayed-type hypersensitivity-induced inflammation with antibodies to monocyte chemoattractant protein-1.** *Am J Pathol*, 148(3):855–64, 1996
- [7] Doyle, H. A. and Murphy, J. W. **MIP-1 alpha contributes to the anticryptococcal delayed-type hypersensitivity reaction and protection against *Cryptococcus neoformans*.** *J Leukoc Biol*, 61(2):147–55, 1997
- [8] Melchers, F. and Rolink, A. **In Fundamental Immunology.** Lippincott-Raven, Philadelphia, 1999
- [9] Rossi, D. and Zlotnik, A. **The biology of chemokines and their receptors.** *Annu Rev Immunol*, 18:217–42, 2000
- [10] Baggiolini, M. **Chemokines and leukocyte traffic.** *Nature*, 392(6676):565–8, 1998

- [11] Zlotnik, A. and Yoshie, O. **Chemokines: a new classification system and their role in immunity.** *Immunity*, 12(2):121–7, 2000
- [12] Walz, A., Kunkel, E. J., et al. **C-X-C chemokines - an overview.** In A. E. Koch and R. M. Strieter, editors, **Chemokines in disease**, pages 1–25. RG Landes Company, Austin, 1996
- [13] Strieter, R. M., Polverini, P. J., et al. **The functional role of the ELR motif in CXC chemokine-mediated angiogenesis.** *J Biol Chem*, 270(45):27348–57, 1995
- [14] Moore, B. B., Keane, M. P., et al. **CXC chemokine modulation of angiogenesis: the importance of balance between angiogenic and angiostatic members of the family.** *J Investig Med*, 46(4):113–20, 1998
- [15] Szekanecz, Z. and Koch, A. E. **Chemokines and angiogenesis.** *Curr Opin Rheumatol*, 13(3):202–8, 2001
- [16] Szekanecz, Z., Strieter, R. M., et al. **Chemokines in rheumatoid arthritis.** *Springer Semin Immunopathol*, 20(1-2):115–32, 1998
- [17] Ruth, J. H., Volin, M. V., et al. **Fractalkine, a novel chemokine in rheumatoid arthritis and in rat adjuvant-induced arthritis.** *Arthritis Rheum*, 44(7):1568–81, 2001
- [18] Loetscher, P. and Moser, B. **Homing chemokines in rheumatoid arthritis.** *Arthritis Res*, 4(4):233–6, 2002
- [19] Sallusto, F., Mackay, C. R., et al. **The role of chemokine receptors in primary, effector, and memory immune responses.** *Annu Rev Immunol*, 18:593–620, 2000
- [20] Szekanecz, Z., Kim, J., et al. **Chemokines and chemokine receptors in rheumatoid arthritis.** *Semin Immunol*, 15(1):15–21, 2003
- [21] Loetscher, P., Moser, B., et al. **Chemokines and their receptors in lymphocyte traffic and HIV infection.** *Adv Immunol*, 74:127–80, 2000
- [22] Murphy, P. M., Baggiolini, M., et al. **International union of pharmacology. XXII. Nomenclature for chemokine receptors.** *Pharmacol Rev*, 52(1):145–76, 2000
- [23] Yoshie, O., Imai, T., et al. **Chemokines in immunity.** *Adv Immunol*, 78:57–110, 2001
- [24] DeVries, M. E., Ran, L., et al. **On the edge: the physiological and pathophysiological role of chemokines during inflammatory and immunological responses.** *Semin Immunol*, 11(2):95–104, 1999

- [25] Krzysiek, R., Lefevre, E. A., et al. **Regulation of CCR6 chemokine receptor expression and responsiveness to macrophage inflammatory protein-3 $\alpha$ /CCL20 in human B cells.** *Blood*, 96(7):2338–45, 2000
- [26] Sato, S., Steeber, D. A., et al. **The CD19 signal transduction molecule is a response regulator of B-lymphocyte differentiation.** *Proc Natl Acad Sci USA*, 92(25):11558–62, 1995
- [27] Yancopoulos, G. D. and Alt, F. W. **Regulation of the assembly and expression of variable-region genes.** *Annu Rev Immunol*, 4:339–68, 1986
- [28] Janeway, J., C. A. and Travers, P. **Immunologie.** Spektrum Akademischer Verlag, Heidelberg, Berlin, Oxford, 2 edition, 1997
- [29] Radic, M. Z. and Zouali, M. **Receptor editing, immune diversification, and self-tolerance.** *Immunity*, 5(6):505–11, 1996
- [30] Hertz, M. and Nemazee, D. **BCR ligation induces receptor editing in IgM+IgD- bone marrow B cells in vitro.** *Immunity*, 6(4):429–36, 1997
- [31] Kim, C. H. and Broxmeyer, H. E. **Chemokines: signal lamps for trafficking of T and B cells for development and effector function.** *J Leukoc Biol*, 65(1):6–15, 1999
- [32] Forster, R., Emrich, T., et al. **Expression of the G-protein-coupled receptor BLR1 defines mature, recirculating B cells and a subset of T-helper memory cells.** *Blood*, 84(3):830–40, 1994
- [33] Cyster, J. G. **Chemokines and cell migration in secondary lymphoid organs.** *Science*, 286(5447):2098–102, 1999
- [34] Schaerli, P., Willimann, K., et al. **CXC chemokine receptor 5 expression defines follicular homing T cells with B cell helper function.** *J Exp Med*, 192(11):1553–62, 2000
- [35] Breitfeld, D., Ohl, L., et al. **Follicular B helper T cells express CXC chemokine receptor 5, localize to B cell follicles, and support immunoglobulin production.** *J Exp Med*, 192(11):1545–52, 2000
- [36] Nieuwenhuis, P. and Opstelten, D. **Functional anatomy of germinal centers.** *Am J Anat*, 170(3):421–35, 1984
- [37] Kunkel, E. J. and Butcher, E. C. **Chemokines and the tissue-specific migration of lymphocytes.** *Immunity*, 16(1):1–4, 2002

- [38] Mackay, C. R. **Follicular homing T helper (Th) cells and the Th1/Th2 paradigm.** *J Exp Med*, 192(11):F31–4, 2000
- [39] Dobner, T., Wolf, I., et al. **Differentiation-specific expression of a novel G protein-coupled receptor from Burkitt's lymphoma.** *Eur J Immunol*, 22(11):2795–9, 1992
- [40] Kaiser, E., Forster, R., et al. **The G protein-coupled receptor BLR1 is involved in murine B cell differentiation and is also expressed in neuronal tissues.** *Eur J Immunol*, 23(10):2532–9, 1993
- [41] Forster, R., Mattis, A. E., et al. **A putative chemokine receptor, BLR1, directs B cell migration to defined lymphoid organs and specific anatomic compartments of the spleen.** *Cell*, 87(6):1037–47, 1996
- [42] Gunn, M. D., Ngo, V. N., et al. **A B-cell-homing chemokine made in lymphoid follicles activates Burkitt's lymphoma receptor-1.** *Nature*, 391(6669):799–803, 1998
- [43] Berek, C. **The development of B-cells and the B-cell repertoire in the microenvironment of the germinal center.** *Immunol Rev*, 126:5–19, 1992
- [44] MacLennan, I. C. **Germinal centers.** *Annu Rev Immunol*, 12:117–39, 1994
- [45] Kelsoe, G. **The germinal center reaction.** *Immunol Today*, 16(7):324–6, 1995
- [46] Rajewsky, K. **Clonal selection and learning in the antibody system.** *Nature*, 381(6585):751–8, 1996
- [47] Kuppers, R., Zhao, M., et al. **Tracing B cell development in human germinal centres by molecular analysis of single cells picked from histological sections.** *Embo J*, 12(13):4955–67, 1993
- [48] Wilson, P. C., de Bouteiller, O., et al. **Somatic hypermutation introduces insertions and deletions into immunoglobulin V genes.** *J Exp Med*, 187(1):59–70, 1998
- [49] Allen, D., Cumano, A., et al. **Timing, genetic requirements and functional consequences of somatic hypermutation during B-cell development.** *Immunol Rev*, 96:5–22, 1987
- [50] Berek, C. and Milstein, C. **Mutation drift and repertoire shift in the maturation of the immune response.** *Immunol Rev*, 96:23–41, 1987
- [51] McKean, D., Huppi, K., et al. **Generation of antibody diversity in the immune response of BALB/c mice to influenza virus hemagglutinin.** *Proc Natl Acad Sci USA*, 81(10):3180–4, 1984

- [52] Lebecque, S. G. and Gearhart, P. J. **Boundaries of somatic mutation in rearranged immunoglobulin genes: 5' boundary is near the promoter, and 3' boundary is approximately 1 kb from V(D)J gene.** *J Exp Med*, 172(6):1717–27, 1990
- [53] Berek, C., Berger, A., et al. **Maturation of the immune response in germinal centers.** *Cell*, 67(6):1121–9, 1991
- [54] Siskind, G. W. and Benacerraf, B. **Cell selection by antigen in the immune response.** *Adv Immunol*, 10:1–50, 1969
- [55] Arpin, C., Dechanet, J., et al. **Generation of memory B cells and plasma cells in vitro.** *Science*, 268(5211):720–2, 1995
- [56] van Kooten, C. and Banchereau, J. **Functions of CD40 on B cells, dendritic cells and other cells.** *Curr Opin Immunol*, 9(3):330–7, 1997
- [57] Gray, D., Siepmann, K., et al. **B-T lymphocyte interactions in the generation and survival of memory cells.** *Immunol Rev*, 150:45–61, 1996
- [58] Agematsu, K., Hokibara, S., et al. **CD27: a memory B-cell marker.** *Immunol Today*, 21(5):204–6, 2000
- [59] Klein, U., Rajewsky, K., et al. **Human immunoglobulin (Ig)M+IgD+ peripheral blood B cells expressing the CD27 cell surface antigen carry somatically mutated variable region genes: CD27 as a general marker for somatically mutated (memory) B cells.** *J Exp Med*, 188(9):1679–89, 1998
- [60] Liu, Y. J., Cairns, J. A., et al. **Recombinant 25-kDa CD23 and interleukin 1 alpha promote the survival of germinal center B cells: evidence for bifurcation in the development of centrocytes rescued from apoptosis.** *Eur J Immunol*, 21(5):1107–14, 1991
- [61] Merville, P., Dechanet, J., et al. **T cell-induced B cell blasts differentiate into plasma cells when cultured on bone marrow stroma with IL-3 and IL-10.** *Int Immunol*, 7(4):635–43, 1995
- [62] Rousset, F., Peyrol, S., et al. **Long-term cultured CD40-activated B lymphocytes differentiate into plasma cells in response to IL-10 but not IL-4.** *Int Immunol*, 7(8):1243–53, 1995
- [63] Choe, J. and Choi, Y. S. **IL-10 interrupts memory B cell expansion in the germinal center by inducing differentiation into plasma cells.** *Eur J Immunol*, 28(2):508–15, 1998

- [64] Gross, J. A., Johnston, J., et al. **TACI and BCMA are receptors for a TNF homologue implicated in B-cell autoimmune disease.** *Nature*, 404(6781):995–9, 2000
- [65] Odendahl, M., Jacobi, A., et al. **Disturbed peripheral B lymphocyte homeostasis in systemic lupus erythematosus.** *J Immunol*, 165(10):5970–9, 2000
- [66] Calame, K. L. **Plasma cells: finding new light at the end of B cell development.** *Nat Immunol*, 2(12):1103–8, 2001
- [67] Tew, J. G., DiLosa, R. M., et al. **Germinal centers and antibody production in bone marrow.** *Immunol Rev*, 126:99–112, 1992
- [68] Manz, R. A., Thiel, A., et al. **Lifetime of plasma cells in the bone marrow.** *Nature*, 388(6638):133–4, 1997
- [69] Nelson, J. L. and Hansen, J. A. **Autoimmune diseases and HLA.** *Crit Rev Immunol*, 10(4):307–28, 1990
- [70] Liston, A., Lesage, S., et al. **Aire regulates negative selection of organ-specific T cells.** *Nat Immunol*, 4(4):350–4, 2003
- [71] Ramsey, C., Winqvist, O., et al. **Aire deficient mice develop multiple features of APECED phenotype and show altered immune response.** *Hum Mol Genet*, 11(4):397–409, 2002
- [72] Bjorses, P., Aaltonen, J., et al. **Gene defect behind APECED: a new clue to autoimmunity.** *Hum Mol Genet*, 7(10):1547–53, 1998
- [73] Bertolino, P., Staschewski, M., et al. **Deletion of a C-terminal sequence of the class II-associated invariant chain abrogates invariant chains oligomer formation and class II antigen presentation.** *J Immunol*, 154(11):5620–9, 1995
- [74] Murphy, D. B. **T cell mediated immunosuppression.** *Curr Opin Immunol*, 5(3):411–7, 1993
- [75] Steinbrink, K., Wolfl, M., et al. **Induction of tolerance by IL-10-treated dendritic cells.** *J Immunol*, 159(10):4772–80, 1997
- [76] Perkins, D. L., Listman, J. A., et al. **Differential expression of activation markers during tolerance induction by superantigens in T-cell receptor (beta-chain) transgenic mice.** *Cell Immunol*, 156(2):310–21, 1994

- [77] Ollier, W. and Symmons, D. **Autoimmunität**. Spektrum Akademischer Verlag, Heidelberg, Berlin, Oxford, 1995
- [78] Zell, R. and Unrath, C. **Rheuma**. Technical report, Bundesministerium für Bildung und Forschung, 2001
- [79] Laufer, S., Gay, S., et al. **Rheumatische Erkrankungen und Entzündung**. Georg Thieme Verlag, Stuttgart, New York, 2002
- [80] Harris, J., E. D. **Rheumatoid arthritis. Pathophysiology and implications for therapy**. *N Engl J Med*, 322(18):1277–89, 1990
- [81] Firestein, G. S. **The immunopathogenesis of rheumatoid arthritis**. *Curr Opin Rheumatol*, 3(3):398–406, 1991
- [82] Randen, I., Brown, D., et al. **Clonally related IgM rheumatoid factors undergo affinity maturation in the rheumatoid synovial tissue**. *J Immunol*, 148(10):3296–301, 1992
- [83] Thewes, G., Mutschler, E., et al. **Anatomie, Physiologie, Pathophysiologie des Menschen**. Wissenschaftliche Verlagsgesellschaft mbH, Stuttgart, 4 edition, 1991
- [84] Gay, S., Gay, R. E., et al. **Molecular and cellular mechanisms of joint destruction in rheumatoid arthritis: two cellular mechanisms explain joint destruction?** *Ann Rheum Dis*, 52 Suppl 1:S39–47, 1993
- [85] Houssiau, F. A. **Cytokines in rheumatoid arthritis**. *Clin Rheumatol*, 14 Suppl 2:10–3, 1995
- [86] Harris, J., E. D., DiBona, D. R., et al. **A mechanism for cartilage destruction in rheumatoid arthritis**. *Trans Assoc Am Physicians*, 83:267–76, 1970
- [87] Gay, D., Saunders, T., et al. **Receptor editing: an approach by autoreactive B cells to escape tolerance**. *J Exp Med*, 177(4):999–1008, 1993
- [88] Firestein, G. S. **Invasive fibroblast-like synoviocytes in rheumatoid arthritis. Passive responders or transformed aggressors?** *Arthritis Rheum*, 39(11):1781–90, 1996
- [89] Kelly, P. M., Bliss, E., et al. **Monoclonal antibody EBM/11: high cellular specificity for human macrophages**. *J Clin Pathol*, 41(5):510–5, 1988
- [90] Burmester, G. R., Stuhlmüller, B., et al. **Mononuclear phagocytes and rheumatoid synovitis. Mastermind or workhorse in arthritis?** *Arthritis Rheum*, 40(1):5–18, 1997

- [91] Salisbury, A. K., Duke, O., et al. **Macrophage-like cells of the pannus area in rheumatoid arthritic joints.** *Scand J Rheumatol*, 16(4):263–72, 1987
- [92] Ziff, M. **Pathways of mononuclear cell infiltration in rheumatoid synovitis.** *Rheumatol Int*, 9(3-5):97–103, 1989
- [93] Shiozawa, S., Shiozawa, K., et al. **Morphologic observations in the early phase of the cartilage-pannus junction. Light and electron microscopic studies of active cellular pannus.** *Arthritis Rheum*, 26(4):472–8, 1983
- [94] Gravallesse, E. M., Darling, J. M., et al. **In situ hybridization studies of stromelysin and collagenase messenger RNA expression in rheumatoid synovium.** *Arthritis Rheum*, 34(9):1076–84, 1991
- [95] Mutschler, E. **Arzneimittelwirkungen.** Wissenschaftliche Verlagsgesellschaft mbH, Stuttgart, 5 edition, 1986
- [96] Oberdisse, E., Hackenthal, E., et al. **Pharmakologie und Toxikologie.** Springer-Verlag, Berlin, Heidelberg, New York, 1997
- [97] Young, C. L., Adamson, r., T. C., et al. **Immunohistologic characterization of synovial membrane lymphocytes in rheumatoid arthritis.** *Arthritis Rheum*, 27(1):32–9, 1984
- [98] Kim, H. J., Krenn, V., et al. **Plasma cell development in synovial germinal centers in patients with rheumatoid and reactive arthritis.** *J Immunol*, 162(5):3053–62, 1999
- [99] Gause, A., Gundlach, K., et al. **Analysis of VH gene rearrangements from synovial B cells of patients with rheumatoid arthritis reveals infiltration of the synovial membrane by memory B cells.** *Rheumatol Int*, 17(4):145–50, 1997
- [100] Schroder, A. E., Greiner, A., et al. **Differentiation of B cells in the nonlymphoid tissue of the synovial membrane of patients with rheumatoid arthritis.** *Proc Natl Acad Sci USA*, 93(1):221–5, 1996
- [101] Mellbye, O. J., Vartdal, F., et al. **IgG and IgA subclass distribution of total immunoglobulin and rheumatoid factors in rheumatoid tissue plasma cells.** *Scand J Rheumatol*, 19(5):333–40, 1990
- [102] Waaler, E. **On the occurrence of a factor in human serum activating the specific agglutination of sheep corpuscles.** *Acta Pathol Microbiol Scand*, 17:172, 1940
- [103] Roosnek, E. and Lanzavecchia, A. **Efficient and selective presentation of antigen-antibody complexes by rheumatoid factor B cells.** *J Exp Med*, 173(2):487–9, 1991



- [104] Gause, A., Gundlach, K., et al. **The B lymphocyte in rheumatoid arthritis: analysis of rearranged V kappa genes from B cells infiltrating the synovial membrane.** *Eur J Immunol*, 25(10):2775–82, 1995
- [105] Burastero, S. E., Cutolo, M., et al. **Monoreactive and polyreactive rheumatoid factors produced by in vitro Epstein-Barr virus-transformed peripheral blood and synovial B lymphocytes from rheumatoid arthritis patients.** *Scand J Immunol*, 32(4):347–57, 1990
- [106] Ezaki, I., Kanda, H., et al. **Restricted diversity of the variable region nucleotide sequences of the heavy and light chains of a human rheumatoid factor.** *Arthritis Rheum*, 34(3):343–50, 1991
- [107] Borretzen, M., Natvig, J. B., et al. **Heterogeneous RF structures between and within healthy individuals are not related to HLA DRB1\*0401.** *Mol Immunol*, 34(12-13):929–38, 1997
- [108] Randen, I., Thompson, K. M., et al. **Human monoclonal rheumatoid factors derived from the polyclonal repertoire of rheumatoid synovial tissue: production and characterization.** *Clin Exp Immunol*, 78(1):13–8, 1989
- [109] Searles, R. P., Savage, S. M., et al. **Network regulation in rheumatoid arthritis. Studies of DR+ T cells, anti-DR, antiidiotypic antibodies, and clinical disease activity.** *Arthritis Rheum*, 31(7):834–43, 1988
- [110] Yamamoto, S., Shimizu, K., et al. **Calcium-dependent cysteine proteinase (calpain) in human arthritic synovial joints.** *Arthritis Rheum*, 35(11):1309–17, 1992
- [111] Mulder, A. H., Horst, G., et al. **Antineutrophil cytoplasmic antibodies in rheumatoid arthritis. Characterization and clinical correlations.** *Arthritis Rheum*, 36(8):1054–60, 1993
- [112] Routsias, J. G., Tzioufas, A. G., et al. **Calreticulin synthetic peptide analogues: anti-peptide antibodies in autoimmune rheumatic diseases.** *Clin Exp Immunol*, 91(3):437–41, 1993
- [113] Simon, M., Girbal, E., et al. **The cytokeratin filament-aggregating protein filaggrin is the target of the so-called "antikeratin antibodies", autoantibodies specific for rheumatoid arthritis.** *J Clin Invest*, 92(3):1387–93, 1993
- [114] Corrigall, V. M., Bodman-Smith, M. D., et al. **The human endoplasmic reticulum molecular chaperone BiP is an autoantigen for rheumatoid arthritis and prevents the induction of experimental arthritis.** *J Immunol*, 166(3):1492–8, 2001

- [115] De Clerck, L. S. **B lymphocytes and humoral immune responses in rheumatoid arthritis.** *Clin Rheumatol*, 14 Suppl 2:14–8, 1995
- [116] Youinou, P. Y., Irving, W. L., et al. **Evidence for B cell activation in patients with active rheumatoid arthritis.** *Clin Exp Immunol*, 55(1):91–8, 1984
- [117] Matsumoto, I., Staub, A., et al. **Arthritis provoked by linked T and B cell recognition of a glycolytic enzyme.** *Science*, 286(5445):1732–5, 1999
- [118] Schaller, M., Burton, D. R., et al. **Autoantibodies to GPI in rheumatoid arthritis: linkage between an animal model and human disease.** *Nat Immunol*, 2(8):746–53, 2001
- [119] Ji, H., Ohmura, K., et al. **Arthritis critically dependent on innate immune system players.** *Immunity*, 16(2):157–68, 2002
- [120] Kassahn, D., Kolb, C., et al. **Few human autoimmune sera detect GPI.** *Nat Immunol*, 3(5):411–2; author reply 412–3, 2002
- [121] Schubert, D., Schmidt, M., et al. **Autoantibodies to GPI and creatine kinase in RA.** *Nat Immunol*, 3(5):411; author reply 412–3, 2002
- [122] Katschke, J., K. J., Rottman, J. B., et al. **Differential expression of chemokine receptors on peripheral blood, synovial fluid, and synovial tissue monocytes/macrophages in rheumatoid arthritis.** *Arthritis Rheum*, 44(5):1022–32, 2001
- [123] Ruth, J. H., Rottman, J. B., et al. **Selective lymphocyte chemokine receptor expression in the rheumatoid joint.** *Arthritis Rheum*, 44(12):2750–60, 2001
- [124] Nanki, T., Hayashida, K., et al. **Stromal cell-derived factor-1-CXC chemokine receptor 4 interactions play a central role in CD4<sup>+</sup> T cell accumulation in rheumatoid arthritis synovium.** *J Immunol*, 165(11):6590–8, 2000
- [125] Godessart, N. and Kunkel, S. L. **Chemokines in autoimmune disease.** *Curr Opin Immunol*, 13(6):670–5, 2001
- [126] Narumi, S., Tominaga, Y., et al. **Expression of IFN-inducible protein-10 in chronic hepatitis.** *J Immunol*, 158(11):5536–44, 1997
- [127] Buckley, C. D., Amft, N., et al. **Persistent induction of the chemokine receptor CXCR4 by TGF-beta 1 on synovial T cells contributes to their accumulation within the rheumatoid synovium.** *J Immunol*, 165(6):3423–9, 2000

- [128] Rathanaswami, P., Hachicha, M., et al. **Expression of the cytokine RANTES in human rheumatoid synovial fibroblasts. Differential regulation of RANTES and interleukin-8 genes by inflammatory cytokines.** *J Biol Chem*, 268(8):5834–9, 1993
- [129] Robinson, E., Keystone, E. C., et al. **Chemokine expression in rheumatoid arthritis (RA): evidence of RANTES and macrophage inflammatory protein (MIP)-1 beta production by synovial T cells.** *Clin Exp Immunol*, 101(3):398–407, 1995
- [130] Szekanecz, Z. and Koch, A. E. **Update on synovitis.** *Curr Rheumatol Rep*, 3(1):53–63, 2001
- [131] Koch, A. E., Kunkel, S. L., et al. **Macrophage inflammatory protein-1 alpha. A novel chemotactic cytokine for macrophages in rheumatoid arthritis.** *J Clin Invest*, 93(3):921–8, 1994
- [132] Qin, S., Rottman, J. B., et al. **The chemokine receptors CXCR3 and CCR5 mark subsets of T cells associated with certain inflammatory reactions.** *J Clin Invest*, 101(4):746–54, 1998
- [133] Suzuki, N., Nakajima, A., et al. **Selective accumulation of CCR5+ T lymphocytes into inflamed joints of rheumatoid arthritis.** *Int Immunol*, 11(4):553–9, 1999
- [134] Loetscher, P., Uguccioni, M., et al. **CCR5 is characteristic of Th1 lymphocytes.** *Nature*, 391(6665):344–5, 1998
- [135] Shi, K., Hayashida, K., et al. **Lymphoid chemokine B cell-attracting chemokine-1 (CXCL13) is expressed in germinal center of ectopic lymphoid follicles within the synovium of chronic arthritis patients.** *J Immunol*, 166(1):650–5, 2001
- [136] Radbruch, A. **Flow cytometry and cell sorting - a laboratory handbook.** Springer, Berlin, Heidelberg, New York, radbruch (ed.) edition, 1992
- [137] Sanger, F., Nicklen, S., et al. **DNA sequencing with chain-terminating inhibitors.** *Proc Natl Acad Sci USA*, 74(12):5463–7, 1977
- [138] Kabat, E. A., Wu, T. T., et al. **Sequences of proteins of immunological interest.** NIH Publication, Bethesda, 5 edition, 1991
- [139] Krenn, V., Morawietz, L., et al. **Grading of chronic synovitis—a histopathological grading system for molecular and diagnostic pathology.** *Pathol Res Pract*, 198(5):317–25, 2002

- [140] Takemura, S., Braun, A., et al. **Lymphoid neogenesis in rheumatoid synovitis.** *J Immunol*, 167(2):1072–80, 2001
- [141] Takemura, S., Klimiuk, P. A., et al. **T cell activation in rheumatoid synovium is B cell dependent.** *J Immunol*, 167(8):4710–8, 2001
- [142] Weyand, C. M., Goronzy, J. J., et al. **Cell-cell interactions in synovitis. Interactions between T cells and B cells in rheumatoid arthritis.** *Arthritis Res*, 2(6):457–63, 2000
- [143] Duke, O., Panayi, G. S., et al. **An immunohistological analysis of lymphocyte subpopulations and their microenvironment in the synovial membranes of patients with rheumatoid arthritis using monoclonal antibodies.** *Clin Exp Immunol*, 49(1):22–30, 1982
- [144] Randen, I., Mellbye, O. J., et al. **The identification of germinal centres and follicular dendritic cell networks in rheumatoid synovial tissue.** *Scand J Immunol*, 41(5):481–6, 1995
- [145] Schroder, A. E., Sieper, J., et al. **Antigen-dependent B cell differentiation in the synovial tissue of a patient with reactive arthritis.** *Mol Med*, 3(4):260–72, 1997
- [146] Kim, H. J. and Berek, C. **B cells in rheumatoid arthritis.** *Arthritis Res*, 2(2):126–31, 2000
- [147] Wagner, U. G., Kurtin, P. J., et al. **The role of CD8+ CD40L+ T cells in the formation of germinal centers in rheumatoid synovitis.** *J Immunol*, 161(11):6390–7, 1998
- [148] Berek, C. and Kim, H. J. **B-cell activation and development within chronically inflamed synovium in rheumatoid and reactive arthritis.** *Semin Immunol*, 9(4):261–8, 1997
- [149] Tak, P. P., Hintzen, R. Q., et al. **Expression of the activation antigen CD27 in rheumatoid arthritis.** *Clin Immunol Immunopathol*, 80(2):129–38, 1996
- [150] Dechanet, J., Merville, P., et al. **The ability of synoviocytes to support terminal differentiation of activated B cells may explain plasma cell accumulation in rheumatoid synovium.** *J Clin Invest*, 95(2):456–63, 1995
- [151] Shimaoka, Y., Attrep, J. F., et al. **Nurse-like cells from bone marrow and synovium of patients with rheumatoid arthritis promote survival and enhance function of human B cells.** *J Clin Invest*, 102(3):606–18, 1998
- [152] Patel, D. D., Zachariah, J. P., et al. **CXCR3 and CCR5 ligands in rheumatoid arthritis synovium.** *Clin Immunol*, 98(1):39–45, 2001

- [153] Narumi, S., Takeuchi, T., et al. **Serum levels of ifn-inducible PROTEIN-10 relating to the activity of systemic lupus erythematosus.** *Cytokine*, 12(10):1561–5, 2000
- [154] Brezinschek, H. P., Brezinschek, R. I., et al. **Analysis of the heavy chain repertoire of human peripheral B cells using single-cell polymerase chain reaction.** *J Immunol*, 155(1):190–202, 1995
- [155] Fu, S. M., Chiorazzi, N., et al. **Differentiation capacity and other properties of the leukemic cells of chronic lymphocytic leukemia.** *Immunol Rev*, 48:23–44, 1979
- [156] Nakayama, T., Fujisawa, R., et al. **Human B cells immortalized with Epstein-Barr virus upregulate CCR6 and CCR10 and downregulate CXCR4 and CXCR5.** *J Virol*, 76(6):3072–7, 2002
- [157] Bowman, E. P., Kuklin, N. A., et al. **The intestinal chemokine thymus-expressed chemokine (CCL25) attracts IgA antibody-secreting cells.** *J Exp Med*, 195(2):269–75, 2002
- [158] Loetscher, M., Loetscher, P., et al. **Lymphocyte-specific chemokine receptor CXCR3: regulation, chemokine binding and gene localization.** *Eur J Immunol*, 28(11):3696–705, 1998
- [159] Durig, J., Schmucker, U., et al. **Differential expression of chemokine receptors in B cell malignancies.** *Leukemia*, 15(5):752–6, 2001
- [160] Hargreaves, D. C., Hyman, P. L., et al. **A coordinated change in chemokine responsiveness guides plasma cell movements.** *J Exp Med*, 194(1):45–56, 2001
- [161] Wehrli, N., Legler, D. F., et al. **Changing responsiveness to chemokines allows medullary plasmablasts to leave lymph nodes.** *Eur J Immunol*, 31(2):609–16, 2001
- [162] Vicente-Manzanares, M., Montoya, M. C., et al. **The chemokine SDF-1alpha triggers a chemotactic response and induces cell polarization in human B lymphocytes.** *Eur J Immunol*, 28(7):2197–207, 1998
- [163] Trentin, L., Agostini, C., et al. **The chemokine receptor CXCR3 is expressed on malignant B cells and mediates chemotaxis.** *J Clin Invest*, 104(1):115–21, 1999
- [164] Sorensen, T. L., Roed, H., et al. **Chemokine receptor expression on B cells and effect of interferon-beta in multiple sclerosis.** *J Neuroimmunol*, 122(1-2):125–31, 2002
- [165] Campbell, J. J., Murphy, K. E., et al. **CCR7 expression and memory T cell diversity in humans.** *J Immunol*, 166(2):877–84, 2001

- [166] Bleul, C. C., Schultze, J. L., et al. **B lymphocyte chemotaxis regulated in association with microanatomic localization, differentiation state, and B cell receptor engagement.** *J Exp Med*, 187(5):753–62, 1998
- [167] Honczarenko, M., Douglas, R. S., et al. **SDF-1 responsiveness does not correlate with CXCR4 expression levels of developing human bone marrow B cells.** *Blood*, 94(9):2990–8, 1999
- [168] Vissers, J. L., Hartgers, F. C., et al. **BLC (CXCL13) is expressed by different dendritic cell subsets in vitro and in vivo.** *Eur J Immunol*, 31(5):1544–9, 2001
- [169] Jenh, C. H., Cox, M. A., et al. **Human B cell-attracting chemokine 1 (BCA-1; CXCL13) is an agonist for the human CXCR3 receptor.** *Cytokine*, 15(3):113–21, 2001
- [170] Taylor, P. C., Peters, A. M., et al. **Reduction of chemokine levels and leukocyte traffic to joints by tumor necrosis factor alpha blockade in patients with rheumatoid arthritis.** *Arthritis Rheum*, 43(1):38–47, 2000
- [171] Campbell, D. J., Kim, C. H., et al. **Separable effector T cell populations specialized for B cell help or tissue inflammation.** *Nat Immunol*, 2(9):876–81, 2001