

7. Literaturverzeichnis

1. **Lefranc,M.-P. and Lefranc, G.**, *The Immunoglobulin Facts Book*. Academic Press, 2001.
2. **Tonegawa,S.**, Somatic generation of antibody diversity. *Nature* 1983. **302**: 575-581.
3. **Alt,F.W. and Baltimore,D.**, Joining of immunoglobulin heavy chain gene segments: implications from a chromosome with evidence of three D-JH fusions. *Proc.Natl.Acad.Sci.U.S.A* 1982. **79**: 4118-4122.
4. **Sakano,H., Kurosawa,Y., Weigert,M., and Tonegawa,S.**, Identification and nucleotide sequence of a diversity DNA segment (D) of immunoglobulin heavy-chain genes. *Nature* 1981. **290**: 562-565.
5. **Jacob,J., Kelsoe,G., Rajewsky,K., and Weiss,U.**, Intraclonal generation of antibody mutants in germinal centres. *Nature* 1991. **354**: 389-392.
6. **Berek,C., Berger,A., and Apel,M.**, Maturation of the immune response in germinal centers. *Cell* 1991. **67**: 1121-1129.
7. **Dorner,T., Brezinschek,H.P., Brezinschek,R.I., Foster,S.J., Domiati-Saad,R., and Lipsky,P.E.**, Analysis of the frequency and pattern of somatic mutations within nonproductively rearranged human variable heavy chain genes. *J Immunol.* 1997. **158**: 2779-2789.
8. **Isaacson,P. and Wright,D.H.**, Malignant lymphoma of mucosa-associated lymphoid tissue. A distinctive type of B-cell lymphoma. *Cancer* 1983. **52**: 1410-1416.
9. **Jonsson,V., Wiik,A., Hou-Jensen,K., Christiansen,M., Ryder,L.P., Madsen,H.O., Geisler,C., Hansen,M.M., Thomsen,K., Vorstrup,S., and Svejgaard,A.**, Autoimmunity and extranodal lymphocytic infiltrates in lymphoproliferative disorders. *J Intern Med* 1999. **245**: 277-286.
10. **Pileri,S., Piccaluga,P.P., De Vivo,A., Sabattini,E., Poggi,S., Melilli,G., Falini,B., and Piccaluga,A.**, Malignant lymphomas of the gastro-intestinal tract: a reappraisal on the basis of the newly proposed Revised European American Lymphoma Classification. *Ital.J Gastroenterol.* 1994. **26**: 405-418.
11. **Isaacson,P.G.**, Pathogenesis and early lesions in extranodal lymphoma. *Toxicol.Lett.* 1993. **67**: 237-247.
12. **Du,M., Diss,T.C., Xu,C., Peng,H., Isaacson,P.G., and Pan,L.**, Ongoing mutation in MALT lymphoma immunoglobulin gene suggests that antigen stimulation plays a role in the clonal expansion. *Leukemia* 1996. **10**: 1190-1197.
13. **Bertoni,F., Cazzaniga,G., Bosshard,G., Roggero,E., Barbazza,R., de Boni,M., Capella,C., Pedrinis,E., Cavalli,F., Biondi,A., and Zucca,E.**, Immunoglobulin heavy chain diversity genes rearrangement pattern indicates that MALT-type gastric lymphoma B cells have undergone an antigen selection process. *Br.J.Haematol.* 1997. **97**: 830-836.

14. Wotherspoon,A.C., Ortiz-Hidalgo,C., Falzon,M.R., and Isaacson,P.G., Helicobacter pylori-associated gastritis and primary B-cell gastric lymphoma. *Lancet* 1991. **338**: 1175-1176.
15. Nakamura,S., Yao,T., Aoyagi,K., Iida,M., Fujishima,M., and Tsuneyoshi,M., Helicobacter pylori and primary gastric lymphoma. A histopathologic and immunohistochemical analysis of 237 patients. *Cancer* 1997. **79**: 3-11.
16. Nakamura,S., Aoyagi,K., Furuse,M., Suekane,H., Matsumoto,T., Yao,T., Sakai,Y., Fuchigami,T., Yamamoto,I., Tsuneyoshi,M., and Fujishima,M., B-cell monoclonality precedes the development of gastric MALT lymphoma in Helicobacter pylori-associated chronic gastritis. *Am.J.Pathol.* 1998. **152**: 1271-1279.
17. Wotherspoon,A.C., Doglioni,C., Diss,T.C., Pan,L., Moschini,A., de Boni,M., and Isaacson,P.G., Regression of primary low-grade B-cell gastric lymphoma of mucosa-associated lymphoid tissue type after eradication of Helicobacter pylori. *Lancet* 1993. **342**: 575-577.
18. Montalban,C., Santon,A., Boixeda,D., Redondo,C., Alvarez,I., Calleja,J.L., de Argila,C.M., and Bellas,C., Treatment of low grade gastric mucosa-associated lymphoid tissue lymphoma in stage I with Helicobacter pylori eradication. Long-term results after sequential histologic and molecular follow-up. *Haematologica* 2001. **86**: 609-617.
19. World Health Organization Classification of Tumours. *Pathology and Genetics of Tumours of Haematopoietic and Lymphoid Tissues*. IARC Press, Lyon, 2001.
20. Hussell,T., Isaacson,P.G., Crabtree,J.E., and Spencer,J., The response of cells from low-grade B-cell gastric lymphomas of mucosa- associated lymphoid tissue to Helicobacter pylori. *Lancet* 1993. **342**: 571-574.
21. Hussell,T., Isaacson,P.G., Crabtree,J.E., and Spencer,J., Helicobacter pylori-specific tumour-infiltrating T cells provide contact dependent help for the growth of malignant B cells in low-grade gastric lymphoma of mucosa-associated lymphoid tissue. *J.Pathol.* 1996. **178**: 122-127.
22. Knorr,C., Amrehn,C., Seeberger,H., Rosenwald,A., Stilgenbauer,S., Ott,G., Muller Hermelink,H.K., and Greiner,A., Expression of costimulatory molecules in low-grade mucosa-associated lymphoid tissue-type lymphomas in vivo. *Am.J.Pathol.* 1999. **155**: 2019-2027.
23. Hussell,T., Isaacson,P.G., Crabtree,J.E., Dogan,A., and Spencer,J., Immunoglobulin specificity of low grade B cell gastrointestinal lymphoma of mucosa-associated lymphoid tissue (MALT) type. *Am.J.Pathol.* 1993. **142**: 285-292.
24. Greiner,A., Marx,A., Heesemann,J., Leebmann,J., Schmausser,B., and Muller-Hermelink,H.K., Idiotypic identity in a MALT-type lymphoma and B cells in Helicobacter pylori associated chronic gastritis. *Lab Invest* 1994. **70**: 572-578.
25. Greiner,A., Qin,Y., Knorr,C., Haedicke,W., Kaup,A., and Muller-Hermelink,H.K., Autoantigen receptors in extranodal non-Hodgkin B-cell lymphomas. *Verh.Dtsch.Ges.Pathol.* 1996. **80**: 160-168.

26. **Qin,Y., Greiner,A., Trunk,M.J., Schmausser,B., Ott,M.M., and Muller-Hermelink,H.K.,** Somatic hypermutation in low-grade mucosa-associated lymphoid tissue- type B-cell lymphoma. *Blood* 1995. **86**: 3528-3534.
27. **Mullis,K., Faloona,F., Scharf,S., Saiki,R., Horn,G., and Erlich,H.,** Specific enzymatic amplification of DNA in vitro: the polymerase chain reaction. *Cold Spring Harb.Symp.Quant.Biol.* 1986. **51 Pt 1**: 263-273.
28. **Marafioti,T., Hummel,M., Anagnostopoulos,I., Foss,H.D., Falini,B., Delsol,G., Isaacson,P.G., Pileri,S., and Stein,H.,** Origin of nodular lymphocyte-predominant Hodgkin's disease from a clonal expansion of highly mutated germinal-center B cells. *N Engl.J.Med.* 1997. **337**: 453-458.
29. **van Dongen,J.J.M., Langerak,A.W., Brüggemann,M., Evans,P.A., Hummel,M., and et al.,** Design and standardization of new PCR primers and protocols for detection of immunoglobulin and T-cell receptor gene rearrangements in lymphoproliferations. *Leukemia* 2003. **in press**.
30. **Sanger,F., Nicklen,S., and Coulson,A.R.,** DNA sequencing with chain-terminating inhibitors. *Proc.Natl.Acad.Sci.U.S.A* 1977. **74**: 5463-5467.
31. **Laemmli,U.K.,** Cleavage of structural proteins during the assembly of the head of bacteriophage T4. *Nature* 1970. **227**: 680-685.
32. **Nesterenko,M.V., Tilley,M., and Upton,S.J.,** A simple modification of Blum's silver stain method allows for 30 minute detection of proteins in polyacrylamide gels. *J Biochem.Biophys.Methods* 1994. **28**: 239-242.
33. **Bradford,M.M.,** A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein-dye binding. *Anal.Biochem.* 1976. **72**: 248-254.
34. **Volkmer-Engert,R., Hoffmann,B., and Schneider-Mergener,J.,** Stable Attachment of the HMB-Linker to Continuous Cellulose Membranes for Parallel Solid Phase Spot Synthesis. *Tetrahedron Letters* 1997. **38**: 1029-1032.
35. **Burnette,W.N.,** "Western blotting": electrophoretic transfer of proteins from sodium dodecyl sulfate--polyacrylamide gels to unmodified nitrocellulose and radiographic detection with antibody and radioiodinated protein A. *Anal.Biochem.* 1981. **112**: 195-203.
36. **Lenze,D., Greiner,A., Knörr,K., Anagnostopoulos,I., Stein,H., and Hummel,M.,** Receptor Revision of immunoglobulin heavy chain genes in human MALT lymphomas. *Journal of Clinical Pathology: Molecular Pathology* 2003. **56**: 1-7.
37. **Eidt,S., Stolte,M., and Fischer,R.,** Helicobacter pylori gastritis and primary gastric non-Hodgkin's lymphomas. *J Clin.Pathol.* 1994. **47**: 436-439.
38. **Wotherspoon,A.C., Pan,L.X., Diss,T.C., and Isaacson,P.G.,** Cytogenetic study of B-cell lymphoma of mucosa-associated lymphoid tissue. *Cancer Genet.Cytogenet.* 1992. **58**: 35-38.

39. **Dierlamm,J., Michaux,L., Wlodarska,I., Pittaluga,S., Zeller,W., Stul,M., Criel,A., Thomas,J., Boogaerts,M., Delaere,P., Cassiman,J.J., Wolf-Peeters,C., Mecucci,C., and Van den,B.H.,** Trisomy 3 in marginal zone B-cell lymphoma: a study based on cytogenetic analysis and fluorescence in situ hybridization. *Br.J Haematol.* 1996. **93:** 242-249.
40. **Horsman,D., Gascoyne,R., Klasa,R., and Coupland,R.,** t(11;18)(q21;q21.1): a recurring translocation in lymphomas of mucosa-associated lymphoid tissue (MALT)? *Genes Chromosomes.Cancer* 1992. **4:** 183-187.
41. **Streubel,B., Lamprecht,A., Dierlamm,J., Cerroni,L., Stolte,M., Ott,G., Raderer,M., and Chott,A.,** T(14;18)(q32;q21) involving IGH and MALT1 is a frequent chromosomal aberration in MALT lymphoma. *Blood* 2003. **101:** 2335-2339.
42. **Isaacson,P.G.,** Gastric MALT lymphoma: from concept to cure. *Ann.Oncol.* 1999. **10:** 637-645.
43. **Greiner,A., Marx,A., Schmausser,B., and Muller-Hermelink,H.K.,** The pivotal role of the immunoglobulin receptor of tumor cells from B cell lymphomas of mucosa associated lymphoid tissue (MALT). *Adv.Exp.Med Biol.* 1994. **355:** 189-193.
44. **Greiner,A., Knorr,C., Qin,Y., Schultz,A., Marx,A., Kroczeck,R.A., and Muller-Hermelink,H.K.,** CD40 ligand and autoantigen are involved in the pathogenesis of low-grade B-cell lymphomas of mucosa-associated lymphoid tissue. *Dev.Immunol.* 1998. **6:** 187-195.
45. **Huston,J.S., Levinson,D., Mudgett-Hunter,M., Tai,M.S., Novotny,J., Margolies,M.N., Ridge,R.J., Brucolieri,R.E., Haber,E., Crea,R., and ..,** Protein engineering of antibody binding sites: recovery of specific activity in an anti-digoxin single-chain Fv analogue produced in Escherichia coli. *Proc.Natl.Acad.Sci.U.S.A* 1988. **85:** 5879-5883.
46. **Bird,R.E., Hardman,K.D., Jacobson,J.W., Johnson,S., Kaufman,B.M., Lee,S.M., Lee,T., Pope,S.H., Riordan,G.S., and Whitlow,M.,** Single-chain antigen-binding proteins. *Science* 1988. **242:** 423-426.
47. **Kortt,A.A., Malby,R.L., Caldwell,J.B., Gruen,L.C., Ivancic,N., Lawrence,M.C., Howlett,G.J., Webster,R.G., Hudson,P.J., and Colman,P.M.,** Recombinant anti-sialidase single-chain variable fragment antibody. Characterization, formation of dimer and higher-molecular-mass multimers and the solution of the crystal structure of the single-chain variable fragment/sialidase complex. *Eur.J Biochem.* 1994. **221:** 151-157.
48. **Glockshuber,R., Malia,M., Pfitzinger,I., and Pluckthun,A.,** A comparison of strategies to stabilize immunoglobulin Fv-fragments. *Biochemistry* 1990. **29:** 1362-1367.
49. **Huston,J.S., McCartney,J., Tai,M.S., Mottola-Hartshorn,C., Jin,D., Warren,F., Keck,P., and Oppermann,H.,** Medical applications of single-chain antibodies. *Int.Rev.Immunol.* 1993. **10:** 195-217.
50. **Harris,B.,** Exploiting antibody-based technologies to manage environmental pollution. *Trends Biotechnol.* 1999. **17:** 290-296.

51. Schneider,I., Cell lines derived from late embryonic stages of *Drosophila melanogaster*. *J Embryol.Exp.Morphol.* 1972. **27**: 353-365.
52. Bei,R., Schlam,J., and Kashmiri,S.V., Baculovirus expression of a functional single-chain immunoglobulin and its IL-2 fusion protein. *J Immunol.Methods* 1995. **186**: 245-255.
53. Verma,R., Boleti,E., and George,A.J., Antibody engineering: comparison of bacterial, yeast, insect and mammalian expression systems. *J Immunol.Methods* 1998. **216**: 165-181.
54. Schwarting,R., Gerdes,J., Durkop,H., Falini,B., Pileri,S., and Stein,H., BER-H2: a new anti-Ki-1 (CD30) monoclonal antibody directed at a formol-resistant epitope. *Blood* 1989. **74**: 1678-1689.
55. Durkop,H., Anagnostopoulos,I., Bulfone-Paus,S., and Stein,H., Expression of several members of the TNF-ligand and receptor family on tonsillar lymphoid B cells. *Br.J Haematol.* 1997. **98**: 863-868.
56. Sanz,I., Casali,P., Thomas,J.W., Notkins,A.L., and Capra,J.D., Nucleotide sequences of eight human natural autoantibody VH regions reveals apparent restricted use of VH families. *J Immunol.* 1989. **142**: 4054-4061.
57. Sanz,I., Dang,H., Takei,M., Talal,N., and Capra,J.D., VH sequence of a human anti-Sm autoantibody. Evidence that autoantibodies can be unmutated copies of germline genes. *J Immunol.* 1989. **142**: 883-887.
58. Lecerf,J.M., Chen,Y., Richalet-Secordel,P., Wang,X., and Stollar,B.D., Autoreactivity of human VH domains from cDNA libraries: analysis with a bacterial expression system. *J Immunol.* 1998. **161**: 1274-1283.
59. Aguilera,I., Melero,J., Nunez-Roldan,A., and Sanchez,B., Molecular structure of eight human autoreactive monoclonal antibodies. *Immunology* 2001. **102**: 273-280.
60. Bahler,D.W., Miklos,J.A., and Swerdlow,S.H., Ongoing Ig gene hypermutation in salivary gland mucosa-associated lymphoid tissue-type lymphomas. *Blood* 1997. **89**: 3335-3344.
61. Bahler,D.W. and Swerdlow,S.H., Clonal salivary gland infiltrates associated with myoepithelial sialadenitis (Sjogren's syndrome) begin as nonmalignant antigen-selected expansions. *Blood* 1998. **91**: 1864-1872.
62. Miklos,J.A., Swerdlow,S.H., and Bahler,D.W., Salivary gland mucosa-associated lymphoid tissue lymphoma immunoglobulin V(H) genes show frequent use of V1-69 with distinctive CDR3 features. *Blood* 2000. **95**: 3878-3884.
63. Qin,Y., Greiner,A., Hallas,C., Haedicke,W., and Muller-Hermelink,H.K., Intraclonal offspring expansion of gastric low-grade MALT-type lymphoma: evidence for the role of antigen-driven high-affinity mutation in lymphomagenesis. *Lab Invest* 1997. **76**: 477-485.

64. **Reth,M., Gehrman,P., Petrac,E., and Wiese,P.**, A novel VH to VHDJH joining mechanism in heavy-chain-negative (null) pre-B cells results in heavy-chain production. *Nature* 1986. **322**: 840-842.
65. **Kleinfield,R., Hardy,R.R., Tarlinton,D., Dangl,J., Herzenberg,L.A., and Weigert,M.**, Recombination between an expressed immunoglobulin heavy-chain gene and a germline variable gene segment in a Ly 1+ B-cell lymphoma. *Nature* 1986. **322**: 843-846.
66. **Han,S., Dillon,S.R., Zheng,B., Shimoda,M., Schlissel,M.S., and Kelsoe,G.**, V(D)J recombinase activity in a subset of germinal center B lymphocytes. *Science* 1997. **278**: 301-305.
67. **Han,S., Zheng,B., Schatz,D.G., Spanopoulou,E., and Kelsoe,G.**, Neoteny in lymphocytes: Rag1 and Rag2 expression in germinal center B cells. *Science* 1996. **274**: 2094-2097.
68. **Papavasiliou,F., Casellas,R., Suh,H., Qin,X.F., Besmer,E., Pelanda,R., Nemazee,D., Rajewsky,K., and Nussenzweig,M.C.**, V(D)J recombination in mature B cells: a mechanism for altering antibody responses. *Science* 1997. **278**: 298-301.
69. **Falini,B., Fizzotti,M., Pucciarini,A., Bigerna,B., Marafioti,T., Gambacorta,M., Pacini,R., Alunni,C., Natali-Tanci,L., Ugolini,B., Sebastiani,C., Cattoretti,G., Pileri,S., Dalla-Favera,R., and Stein,H.**, A monoclonal antibody (MUM1p) detects expression of the MUM1/IRF4 protein in a subset of germinal center B cells, plasma cells, and activated T cells. *Blood* 2000. **95**: 2084-2092.
70. **Bussow,K., Cahill,D., Nietfeld,W., Bancroft,D., Scherzinger,E., Lehrach,H., and Walter,G.**, A method for global protein expression and antibody screening on high-density filters of an arrayed cDNA library. *Nucleic Acids Res.* 1998. **26**: 5007-5008.
71. **Frank,R.**, Spot-Synthesis: An Easy Technique for the Positionally Adressable, Parallel Chemical Synthesis on a Membrane Support. *Tetrahedron* 1992. **48**: 9217-9232.
72. **Kramer,A., Volkmer-Engert,R., Malin,R., Reineke,U., and Schneider-Mergener,J.**, Simultaneous synthesis of peptide libraries on single resin and continuous cellulose membrane supports: examples for the identification of protein, metal and DNA binding peptide mixtures. *Pept.Res.* 1993. **6**: 314-319.
73. **Kramer,A., Reineke,U., Dong,L., Hoffmann,B., Hoffmuller,U., Winkler,D., Volkmer-Engert,R., and Schneider-Mergener,J.**, Spot synthesis: observations and optimizations. *J Pept.Res.* 1999. **54**: 319-327.
74. **Atassi,M.Z.**, Antigenic structure of myoglobin: the complete immunochemical anatomy of a protein and conclusions relating to antigenic structures of proteins. *Immunochemistry*. 1975. **12**: 423-438.