

## 8 Literaturverzeichnis

- Agalioti,T., Chen,G., Thanos,D. (2002). Deciphering the transcriptional histone acetylation code for a human gene. *Cell.* 111, 381-392.
- Akira,S., Takeda,K. (2004). Functions of toll-like receptors: lessons from KO mice. *C R.Biol.* 327, 581-589.
- Akira,S., Uematsu,S., Takeuchi,O. (2006). Pathogen recognition and innate immunity. *Cell* 124, 783-801.
- Aliprantis,A.O., Yang,R.B., Mark,M.R., Suggett,S., Devaux,B., Radolf,J.D., Klimpel,G.R., Godowski,P., Zychlinsky,A. (1999). Cell activation and apoptosis by bacterial lipoproteins through toll-like receptor-2. *Science* 285, 736-739.
- Anderlini,P., Przepiorka,D., Champlin,R., Korbling,M. (1996). Biologic and clinical effects of granulocyte colony-stimulating factor in normal individuals. *Blood* 88, 2819-2825.
- Arbibe,L., Mira,J.P., Teusch,N., Kline,L., Guha,M., Mackman,N., Godowski,P.J., Ulevitch,R.J., Knaus,U.G. (2000). Toll-like receptor 2-mediated NF-kappa B activation requires a Rac1-dependent pathway. *Nat.Immunol* 1, 533-540.
- Arney,K.L., Fisher,A.G. (2004). Epigenetic aspects of differentiation. *J.Cell Sci.* 117, 4355-4363.
- Aspenstrom,P., Fransson,A., Saras,J. (2004). Rho GTPases have diverse effects on the organization of the actin filament system. *Biochem.J* 377, 327-337.
- Avni,O., Lee,D., Macian,F., Szabo,S.J., Glimcher,L.H., Rao,A. (2002). T(H) cell differentiation is accompanied by dynamic changes in histone acetylation of cytokine genes. *Nat.Immunol.* 3, 643-651.
- Bagliolini,M. (1998). Chemokines and leukocyte traffic. *Nature* 392, 565-568.
- Barnes,B., Lubyova,B., Pitha,P.M. (2002). On the role of IRF in host defense. *J.Interferon Cytokine Res.* 22, 59-71.
- Barnes,P.J., Adcock,I.M., Ito,K. (2005). Histone acetylation and deacetylation: importance in inflammatory lung diseases. *Eur Respir J* 25, 552-563.
- Battle,T.E., Lynch,R.A., Frank,D.A. (2006). Signal transducer and activator of transcription 1 activation in endothelial cells is a negative regulator of angiogenesis. *Cancer Res.* 66, 3649-3657.
- Beatty,W.L., Morrison,R.P., Byrne,G.I. (1994). Persistent chlamydiae: from cell culture to a paradigm for chlamydial pathogenesis. *Microbiol.Rev.* 58, 686-699.

## LITERATURVERZEICHNIS

---

- Bernards,A. (2003). GAPs galore! A survey of putative Ras superfamily GTPase activating proteins in man and Drosophila. *Biochim.Biophys.Acta* 1603, 47-82.
- Beutler,B., Jiang,Z., Georgel,P., Crozat,K., Croker,B., Rutschmann,S., Du,X., Hoebe,K. (2006). Genetic analysis of host resistance: Toll-like receptor signaling and immunity at large. *Annu.Rev.Immunol.* 24:353-89., 353-389.
- Bibb,W.F., Gellin,B.G., Weaver,R., Schwartz,B., Plikaytis,B.D., Reeves,M.W., Pinner,R.W., Broome,C.V. (1990). Analysis of clinical and food-borne isolates of Listeria monocytogenes in the United States by multilocus enzyme electrophoresis and application of the method to epidemiologic investigations. *Appl.Environ.Microbiol.* 56, 2133-2141.
- Biwa,T., Sakai,M., Shichiri,M., Horiuchi,S. (2000). Granulocyte/macrophage colony-stimulating factor plays an essential role in oxidized low density lipoprotein-induced macrophage proliferation. *J Atheroscler.Thromb.* 7, 14-20.
- Boehm,U., Klamp,T., Groot,M., Howard,J.C. (1997). Cellular responses to interferon-gamma. *Annu.Rev Immunol.* 15:749-95., 749-795.
- Bonizzi,G., Karin,M. (2004). The two NF-kappaB activation pathways and their role in innate and adaptive immunity. *Trends Immunol* 25, 280-288.
- Borish,L.C., Steinke,J.W. (2003). 2. Cytokines and chemokines. *J Allergy Clin.Immunol.* 111, S460-S475.
- Bowie,V.L., Snella,K.A., Gopalachar,A.S., Bharadwaj,P. (2004). Listeria meningitis associated with infliximab. *Ann Pharmacother.* 38, 58-61.
- Bradbury,E.M. (1992). Reversible histone modifications and the chromosome cell cycle. *Bioessays* 14, 9-16.
- Brasier,A.R., Jamaluddin,M., Casola,A., Duan,W., Shen,Q., Garofalo,R.P. (1998). A promoter recruitment mechanism for tumor necrosis factor-alpha-induced interleukin-8 transcription in type II pulmonary epithelial cells. Dependence on nuclear abundance of Rel A, NF-kappaB1, and c-Rel transcription factors. *J Biol.Chem.* 273, 3551-3561.
- Braun,L., Cossart,P. (2000). Interactions between Listeria monocytogenes and host mammalian cells. *Microbes.Infect.* 2, 803-811.
- Bream,J.H., Hodge,D.L., Gonsky,R., Spolski,R., Leonard,W.J., Krebs,S., Targan,S., Morinobu,A., O'Shea,J.J., Young,H.A. (2004). A distal region in the interferon-gamma gene is a site of epigenetic remodeling and transcriptional regulation by interleukin-2. *J Biol Chem.* 279, 41249-41257.
- Bulut,Y., Faure,E., Thomas,L., Karahashi,H., Michelsen,K.S., Equils,O., Morrison,S.G., Morrison,R.P., Arditi,M. (2002). Chlamydial heat shock protein 60 activates macrophages and endothelial cells through Toll-like receptor 4 and MD2 in a MyD88-dependent pathway. *J Immunol* 168, 1435-1440.

## LITERATURVERZEICHNIS

---

- Carlin,J.M., Weller,J.B. (1995). Potentiation of interferon-mediated inhibition of Chlamydia infection by interleukin-1 in human macrophage cultures. *Infect.Immun.* 63, 1870-1875.
- Carruthers,L.M., Bednar,J., Woodcock,C.L., Hansen,J.C. (1998). Linker histones stabilize the intrinsic salt-dependent folding of nucleosomal arrays: mechanistic ramifications for higher-order chromatin folding. *Biochemistry* 37, 14776-14787.
- Chakraborty,T., Hain,T., Domann,E. (2000). Genome organization and the evolution of the virulence gene locus in Listeria species. *Int.J Med Microbiol.* 290, 167-174.
- Chang,L., Karin,M. (2001). Mammalian MAP kinase signalling cascades. *Nature* 410, 37-40.
- Cheung,P., Allis,C.D., Sassone-Corsi,P. (2000a). Signaling to chromatin through histone modifications. *Cell.* 103, 263-271.
- Cheung,P., Lau,P. (2005). Epigenetic regulation by histone methylation and histone variants. *Mol Endocrinol.* 19, 563-573.
- Cheung,P., Tanner,K.G., Cheung,W.L., Sassone-Corsi,P., Denu,J.M., Allis,C.D. (2000b). Synergistic coupling of histone H3 phosphorylation and acetylation in response to epidermal growth factor stimulation. *Mol Cell* 5, 905-915.
- Claus,R., Lubbert,M. (2003). Epigenetic targets in hematopoietic malignancies. *Oncogene* 22, 6489-6496.
- Cochrane,M., Walker,P., Gibbs,H., Timms,P. (2005). Multiple genotypes of Chlamydia pneumoniae identified in human carotid plaque. *Microbiology*. 151, 2285-2290.
- Conlan,J.W., North,R.J. (1994). Listeria monocytogenes, but not *Salmonella typhimurium*, elicits a CD18-independent mechanism of neutrophil extravasation into the murine peritoneal cavity. *Infect.Immun.* 62, 2702-2706.
- Cook,P.J., Davies,P., Tunnicliffe,W., Ayres,J.G., Honeybourne,D., Wise,R. (1998). Chlamydia pneumoniae and asthma. *Thorax* 53, 254-259.
- Cosio,B.G., Tsaprouni,L., Ito,K., Jazrawi,E., Adcock,I.M., Barnes,P.J. (2004). Theophylline restores histone deacetylase activity and steroid responses in COPD macrophages. *J Exp.Med* 200, 689-695.
- Crosio,C., Heitz,E., Allis,C.D., Borrelli,E., Sassone-Corsi,P. (2003). Chromatin remodeling and neuronal response: multiple signaling pathways induce specific histone H3 modifications and early gene expression in hippocampal neurons. *J Cell Sci.* 116, 4905-4914.
- Czuprynski,C.J., Brown,J.F., Wagner,R.D., Steinberg,H. (1994). Administration of antigranulocyte monoclonal antibody RB6-8C5 prevents expression of acquired resistance to Listeria monocytogenes infection in previously immunized mice. *Infect.Immun.* 62, 5161-5163.

## LITERATURVERZEICHNIS

---

- de Ruijter,A.J., van Gennip,A.H., Caron,H.N., Kemp,S., van Kuilenburg,A.B. (2003). Histone deacetylases (HDACs): characterization of the classical HDAC family. *Biochem.J* 370, 737-749.
- Dechend,R., Gieffers,J., Dietz,R., Joerres,A., Rupp,J., Luft,F.C., Maass,M. (2003). Hydroxymethylglutaryl coenzyme A reductase inhibition reduces Chlamydia pneumoniae-induced cell interaction and activation. *Circulation*. 108, 261-265.
- DeForge,L.E., Preston,A.M., Takeuchi,E., Kenney,J., Boxer,L.A., Remick,D.G. (1993). Regulation of interleukin 8 gene expression by oxidant stress. *J Biol.Chem.* 268, 25568-25576.
- Drevets,D.A., Sawyer,R.T., Potter,T.A., Campbell,P.A. (1995). Listeria monocytogenes infects human endothelial cells by two distinct mechanisms. *Infect.Immun.* 63, 4268-4276.
- Dunzendorfer,S., Lee,H.K., Tobias,P.S. (2004). Flow-dependent regulation of endothelial Toll-like receptor 2 expression through inhibition of SP1 activity. *Circ Res.* 95, 684-691.
- Eferl,R., Wagner,E.F. (2003). AP-1: a double-edged sword in tumorigenesis. *Nat.Rev.Cancer* 3, 859-868.
- Elkind,M.S., Lin,I.F., Grayston,J.T., Sacco,R.L. (2000). Chlamydia pneumoniae and the risk of first ischemic stroke : The Northern Manhattan Stroke Study. *Stroke* 31, 1521-1525.
- Erkkila,L., Jauhainen,M., Laitinen,K., Haasio,K., Tirola,T., Saikku,P., Leinonen,M. (2005). Effect of simvastatin, an established lipid-lowering drug, on pulmonary Chlamydia pneumoniae infection in mice. *Antimicrob.Agents Chemother.* 49, 3959-3962.
- Etienne-Manneville,S., Hall,A. (2002). Rho GTPases in cell biology. *Nature* 420, 629-635.
- Faure,E., Thomas,L., Xu,H., Medvedev,A., Equils,O., Arditi,M. (2001). Bacterial lipopolysaccharide and IFN-gamma induce Toll-like receptor 2 and Toll-like receptor 4 expression in human endothelial cells: role of NF-kappa B activation. *J Immunol* 166, 2018-2024.
- Fernandes,I., Bastien,Y., Wai,T., Nygard,K., Lin,R., Cormier,O., Lee,H.S., Eng,F., Bertos,N.R., Pelletier,N., Mader,S., Han,V.K., Yang,X.J., White,J.H. (2003). Ligand-dependent nuclear receptor corepressor LCoR functions by histone deacetylase-dependent and -independent mechanisms. *Mol Cell* 11, 139-150.
- Flesch,I.E., Barsig,J., Kaufmann,S.H. (1998). Differential chemokine response of murine macrophages stimulated with cytokines and infected with Listeria monocytogenes. *Int.Immunol.* 10, 757-765.
- Frucht,D.M., Fukao,T., Bogdan,C., Schindler,H., O'Shea,J.J., Koyasu,S. (2001). IFN-gamma production by antigen-presenting cells: mechanisms emerge. *Trends Immunol.* 22, 556-560.

## LITERATURVERZEICHNIS

---

Gaillard,J.L., Berche,P., Mounier,J., Richard,S., Sansonetti,P. (1987). In vitro model of penetration and intracellular growth of Listeria monocytogenes in the human enterocyte-like cell line Caco-2. *Infect.Immun.* 55, 2822-2829.

Gao,Y., Dickerson,J.B., Guo,F., Zheng,J., Zheng,Y. (2004). Rational design and characterization of a Rac GTPase-specific small molecule inhibitor. *Proc Natl.Acad.Sci U.S A* 101, 7618-7623.

Gaydos,C.A., Summersgill,J.T., Sahney,N.N., Ramirez,J.A., Quinn,T.C. (1996). Replication of Chlamydia pneumoniae in vitro in human macrophages, endothelial cells, and aortic artery smooth muscle cells. *Infect.Immun.* 64, 1614-1620.

Ghosh,S., Karin,M. (2002). Missing pieces in the NF-kappaB puzzle. *Cell 109 Suppl:S81-96.*, S81-S96.

Gieffers,J., Rupp,J., Gebert,A., Solbach,W., Klinger,M. (2004a). First-choice antibiotics at subinhibitory concentrations induce persistence of Chlamydia pneumoniae. *Antimicrob.Agents Chemother.* 48, 1402-1405.

Gieffers,J., van Zandbergen,G., Rupp,J., Sayk,F., Kruger,S., Ehlers,S., Solbach,W., Maass,M. (2004b). Phagocytes transmit Chlamydia pneumoniae from the lungs to the vasculature. *Eur Respir J.* 23, 506-510.

Girardin,S.E., Boneca,I.G., Viala,J., Chamaillard,M., Labigne,A., Thomas,G., Philpott,D.J., Sansonetti,P.J. (2003). Nod2 is a general sensor of peptidoglycan through muramyl dipeptide (MDP) detection. *J.Biol.Chem.* 278, 8869-8872.

Girardin,S.E., Tournebize,R., Mavris,M., Page,A.L., Li,X., Stark,G.R., Bertin,J., DiStefano,P.S., Yaniv,M., Sansonetti,P.J., Philpott,D.J. (2001). CARD4/Nod1 mediates NF-kappaB and JNK activation by invasive Shigella flexneri. *EMBO Rep.* 2, 736-742.

Glaser,P., Frangeul,L., Buchrieser,C., Rusniok,C., Amend,A., Baquero,F., Berche,P., Bloecker,H., Brandt,P., Chakraborty,T., Charbit,A., Chetouani,F., Couve,E., de Daruvar,A., Dehoux,P., Domann,E., Dominguez-Bernal,G., Duchaud,E., Durant,L., Dussurget,O., Entian,K.D., Fsihi,H., Garcia-del Portillo,F., Garrido,P., Gautier,L., Goebel,W., Gomez-Lopez,N., Hain,T., Hauf,J., Jackson,D., Jones,L.M., Kaerst,U., Kreft,J., Kuhn,M., Kunst,F., Kurapkat,G., Madueno,E., Maitournam,A., Vicente,J.M., Ng,E., Nedjari,H., Nordsiek,G., Novella,S., de Pablos,B., Perez-Diaz,J.C., Purcell,R., Remmel,B., Rose,M., Schlueter,T., Simoes,N., Tierrez,A., Vazquez-Boland,J.A., Voss,H., Wehland,J., Cossart,P. (2001). Comparative genomics of Listeria species. *Science 294*, 849-852.

Grayston,J.T., Aldous,M.B., Easton,A., Wang,S.P., Kuo,C.C., Campbell,L.A., Altman,J. (1993). Evidence that Chlamydia pneumoniae causes pneumonia and bronchitis. *J Infect.Dis* 168, 1231-1235.

Grayston,J.T., Campbell,L.A., Kuo,C.C., Mordhorst,C.H., Saikku,P., Thom,D.H., Wang,S.P. (1990). A new respiratory tract pathogen: Chlamydia pneumoniae strain TWAR. *J Infect.Dis* 161, 618-625.

## LITERATURVERZEICHNIS

---

Greiffenberg,L., Goebel,W., Kim,K.S., Daniels,J., Kuhn,M. (2000). Interaction of Listeria monocytogenes with human brain microvascular endothelial cells: an electron microscopic study. *Infect.Immun.* 68, 3275-3279.

Hackstadt T. Chlamydia: Intracellular Biology, Pathogenesis and Immunity. 101-138. 1999. Cell biology, Washington, D.C.:ASM Press.

Ref Type: Generic

Hackstadt,T., Fischer,E.R., Scidmore,M.A., Rockey,D.D., Heinzen,R.A. (1997). Origins and functions of the chlamydial inclusion. *Trends Microbiol.* 5, 288-293.

Hahn,D.L. (1999). Chlamydia pneumoniae, asthma, and COPD: what is the evidence? *Ann Allergy Asthma Immunol* 83, 271-88, 291.

Haller,D., Holt,L., Kim,S.C., Schwabe,R.F., Sartor,R.B., Jobin,C. (2003). Transforming growth factor-beta 1 inhibits non-pathogenic Gram negative bacteria-induced NF-kappa B recruitment to the interleukin-6 gene promoter in intestinal epithelial cells through modulation of histone acetylation. *J Biol Chem.* 278, 23851-23860.

Hamon,M., Bierne,H., Cossart,P. (2006). Listeria monocytogenes: a multifaceted model. *Nat.Rev.Microbiol.* 4, 423-434.

Harty,J.T., Bevan,M.J. (1995). Specific immunity to Listeria monocytogenes in the absence of IFN gamma. *Immunity* 3, 109-117.

Hayden,M.S., Ghosh,S. (2004). Signaling to NF-kappaB. *Genes Dev.* 18, 2195-2224.

Hess-Stumpp,H. (2005). Histone deacetylase inhibitors and cancer: from cell biology to the clinic. *Eur J Cell Biol* 84, 109-121.

Hippenstiel,S., Schmeck,B., N'Guessan,P.D., Seybold,J., Krüll,M., Preissner,K., Eichel-Streiber,C.V., Suttorp,N. (2002a). Rho protein inactivation induced apoptosis of cultured human endothelial cells. *Am J Physiol Lung Cell Mol Physiol* 283, L830-L838.

Hippenstiel,S., Schmeck,B., Seybold,J., Krüll,M., Eichel-Streiber,C., Suttorp,N. (2002b). Reduction of tumor necrosis factor-alpha (TNF-alpha) related nuclear factor-kappaB (NF-kappaB) translocation but not inhibitor kappa-B (Ikappa-B)-degradation by Rho protein inhibition in human endothelial cells. *Biochem.Pharmacol.* 64, 971-977.

Hippenstiel,S., Soeth,S., Kellas,B., Fuhrmann,O., Seybold,J., Krüll,M., Eichel-Streiber,C., Goebeler,M., Ludwig,S., Suttorp,N. (2000). Rho proteins and the p38-MAPK pathway are important mediators for LPS-induced interleukin-8 expression in human endothelial cells. *Blood* 95, 3044-3051.

Hippenstiel,S., Suttorp,N. (2003). Interaction of pathogens with the endothelium. *Thromb.Haemost.* 89, 18-24.

## LITERATURVERZEICHNIS

---

- Hoefen,R.J., Berk,B.C. (2002). The role of MAP kinases in endothelial activation. *Vascul.Pharmacol.* 38, 271-273.
- Hoffmann,E., Dittrich-Breiholz,O., Holtmann,H., Kracht,M. (2002). Multiple control of interleukin-8 gene expression. *J Leukoc.Biol* 72, 847-855.
- Hogan,R.J., Mathews,S.A., Mukhopadhyay,S., Summersgill,J.T., Timms,P. (2004). Chlamydial persistence: beyond the biphasic paradigm. *Infect.Immun.* 72, 1843-1855.
- Hoshimoto,A., Suzuki,Y., Katsuno,T., Nakajima,H., Saito,Y. (2002). Caprylic acid and medium-chain triglycerides inhibit IL-8 gene transcription in Caco-2 cells: comparison with the potent histone deacetylase inhibitor trichostatin A. *Br.J Pharmacol.* 136, 280-286.
- Iizawa,Y., Brown,J.F., Czuprynski,C.J. (1992). Early expression of cytokine mRNA in mice infected with Listeria monocytogenes. *Infect.Immun.* 60, 4068-4073.
- Ikeda,U. (2003). Inflammation and coronary artery disease. *Curr.Vasc.Pharmacol.* 1, 65-70.
- Imhof,A., Wolffe,A.P. (1998). Transcription: gene control by targeted histone acetylation. *Curr.Biol.* 8, R422-R424.
- Inohara, Chamaillard, McDonald,C., Nunez,G. (2005). NOD-LRR proteins: role in host-microbial interactions and inflammatory disease. *Annu.Rev.Biochem.* 74:355-83., 355-383.
- Inohara,N., Koseki,T., Lin,J., del Peso,L., Lucas,P.C., Chen,F.F., Ogura,Y., Nunez,G. (2000). An induced proximity model for NF-kappa B activation in the Nod1/RICK and RIP signaling pathways. *J Biol Chem* 275, 27823-27831.
- Inohara,N., Ogura,Y., Fontalba,A., Gutierrez,O., Pons,F., Crespo,J., Fukase,K., Inamura,S., Kusumoto,S., Hashimoto,M., Foster,S.J., Moran,A.P., Fernandez-Luna,J.L., Nunez,G. (2003). Host recognition of bacterial muramyl dipeptide mediated through NOD2. Implications for Crohn's disease. *J.Biol.Chem.* 278, 5509-5512.
- Ip,Y.T., Davis,R.J. (1998). Signal transduction by the c-Jun N-terminal kinase (JNK)--from inflammation to development. *Curr.Opin.Cell Biol* 10, 205-219.
- Ito,K., Barnes,P.J., Adcock,I.M. (2000). Glucocorticoid receptor recruitment of histone deacetylase 2 inhibits interleukin-1beta-induced histone H4 acetylation on lysines 8 and 12. *Mol Cell Biol* 20, 6891-6903.
- Jaenisch,R., Bird,A. (2003). Epigenetic regulation of gene expression: how the genome integrates intrinsic and environmental signals. *Nat.Genet.* 33 Suppl:245-54., 245-254.
- Jaffe,A.B., Hall,A. (2005). RHO GTPASES: Biochemistry and Biology. *Annu.Rev.Cell Dev.Biol* 21:247-269., 247-269.

## LITERATURVERZEICHNIS

---

- Jaffe,E.A., Nachman,R.L., Becker,C.G., Minick,C.R. (1973). Culture of human endothelial cells derived from umbilical veins. Identification by morphologic and immunologic criteria. *J Clin.Invest* 52, 2745-2756.
- Janeway,C.A., Jr., Medzhitov,R. (2002). Innate immune recognition. *Annu.Rev Immunol* 20, 197-216.
- Javelaud,D., Mauviel,A. (2005). Crosstalk mechanisms between the mitogen-activated protein kinase pathways and Smad signaling downstream of TGF-beta: implications for carcinogenesis. *Oncogene* 24, 5742-5750.
- Jenuwein,T., Allis,C.D. (2001). Translating the histone code. *Science*. 293, 1074-1080.
- Jimi,E., Aoki,K., Saito,H., D'Acquisto,F., May,M.J., Nakamura,I., Sudo,T., Kojima,T., Okamoto,F., Fukushima,H., Okabe,K., Ohya,K., Ghosh,S. (2004). Selective inhibition of NF-kappa B blocks osteoclastogenesis and prevents inflammatory bone destruction in vivo. *Nat.Med* 10, 617-624.
- Jimi,E., Ghosh,S. (2005). Role of nuclear factor-kappaB in the immune system and bone. *Immunol Rev*. 208:80-7., 80-87.
- Jones,P.L., Shi,Y.B. (2003). N-CoR-HDAC corepressor complexes: roles in transcriptional regulation by nuclear hormone receptors. *Curr.Top.Microbiol.Immunol* 274:237-68., 237-268.
- Kasahara,T., Mukaida,N., Yamashita,K., Yagisawa,H., Akahoshi,T., Matsushima,K. (1991). IL-1 and TNF-alpha induction of IL-8 and monocyte chemotactic and activating factor (MCAF) mRNA expression in a human astrocytoma cell line. *Immunology* 74, 60-67.
- Kasama,T., Strieter,R.M., Standiford,T.J., Burdick,M.D., Kunkel,S.L. (1993). Expression and regulation of human neutrophIL-derived macrophage inflammatory protein 1 alpha. *J Exp.Med* 178, 63-72.
- Kato,K., Matsubara,T., Iida,K., Suzuki,O., Sato,Y. (1999). Elevated levels of pro-inflammatory cytokines in coronary artery thrombi. *Int.J Cardiol*. 70, 267-273.
- Kaukoranta-Tolvanen,S.S., Laitinen,K., Saikku,P., Leinonen,M. (1994). Chlamydia pneumoniae multiplies in human endothelial cells in vitro. *Microb.Pathog.* 16, 313-319.
- Kaukoranta-Tolvanen,S.S., Teppo,A.M., Laitinen,K., Saikku,P., Linnavauri,K., Leinonen,M. (1996). Growth of Chlamydia pneumoniae in cultured human peripheral blood mononuclear cells and induction of a cytokine response. *Microb.Pathog.* 21, 215-221.
- Kayal,S., Lilienbaum,A., Poyart,C., Memet,S., Israel,A., Berche,P. (1999). Listeriolysin O-dependent activation of endothelial cells during infection with Listeria monocytogenes: activation of NF-kappa B and upregulation of adhesion molecules and chemokines. *Mol Microbiol*. 31, 1709-1722.

## LITERATURVERZEICHNIS

---

Kelly,W.K., Marks,P.A. (2005). Drug insight: Histone deacetylase inhibitors--development of the new targeted anticancer agent suberoylanilide hydroxamic acid. *Nat.Clin.Pract.Oncol.* 2, 150-157.

Kelly,W.K., O'Connor,O.A., Krug,L.M., Chiao,J.H., Heaney,M., Curley,T., MacGregore-Cortelli,B., Tong,W., Secrist,J.P., Schwartz,L., Richardson,S., Chu,E., Olgac,S., Marks,P.A., Scher,H., Richon,V.M. (2005). Phase I study of an oral histone deacetylase inhibitor, suberoylanilide hydroxamic acid, in patients with advanced cancer. *J Clin.Oncol.* 23, 3923-3931.

Klug,A., Rhodes,D., Smith,J., Finch,J.T., Thomas,J.O. (1980). A low resolution structure for the histone core of the nucleosome. *Nature* 287, 509-516.

Kol,A., Sukhova,G.K., Lichtman,A.H., Libby,P. (1998). Chlamydial heat shock protein 60 localizes in human atheroma and regulates macrophage tumor necrosis factor-alpha and matrix metalloproteinase expression. *Circulation* 98, 300-307.

Koshland,D., Strunnikov,A. (1996). Mitotic chromosome condensation. *Annu.Rev.Cell Dev.Biol.* 12:305-33., 305-333.

Kothe,H., Dalhoff,K., Rupp,J., Muller,A., Kreuzer,J., Maass,M., Katus,H.A. (2000). Hydroxymethylglutaryl coenzyme A reductase inhibitors modify the inflammatory response of human macrophages and endothelial cells infected with Chlamydia pneumoniae. *Circulation* 101, 1760-1763.

Krüll,M., Bockstaller,P., Wuppermann,F.N., Klucken,A.C., Muhling,J., Schmeck,B., Seybold,J., Walter,C., Maass,M., Rousseau,S., Hegemann,J.H., Suttorp,N., Hippenstiel,S. (2005a). Mechanisms of Chlamydophila pneumoniae Mediated GM-CSF Release in Human Bronchial Epithelial Cells. *Am J Respir Cell Mol Biol* ..

Krüll,M., Klucken,A.C., Wuppermann,F.N., Fuhrmann,O., Magerl,C., Seybold,J., Hippenstiel,S., Hegemann,J.H., Jantos,C.A., Suttorp,N. (1999). Signal transduction pathways activated in endothelial cells following infection with Chlamydia pneumoniae. *J Immunol.* 162, 4834-4841.

Krüll,M., Kramp,J., Petrov,T., Klucken,A.C., Hocke,A.C., Walter,C., Schmeck,B., Seybold,J., Maass,M., Ludwig,S., Kuipers,J.G., Suttorp,N., Hippenstiel,S. (2004). Differences in cell activation by Chlamydophila pneumoniae and Chlamydia trachomatis infection in human endothelial cells. *Infect.Immun.* 72, 6615-6621.

Krüll,M., Maass,M., Suttorp,N., Rupp,J. (2005b). Chlamydophila pneumoniae. Mechanisms of target cell infection and activation. *Thromb.Haemost.* 94, 319-326.

Krüll,M., Nost,R., Hippenstiel,S., Domann,E., Chakraborty,T., Suttorp,N. (1997). Listeria monocytogenes potently induces up-regulation of endothelial adhesion molecules and neutrophil adhesion to cultured human endothelial cells. *J Immunol.* 159, 1970-1976.

## LITERATURVERZEICHNIS

---

- Kuhn,M., Pfeuffer,T., Greiffenberg,L., Goebel,W. (1999). Host cell signal transduction during Listeria monocytogenes infection. *Arch Biochem.Biophys.* 372, 166-172.
- Kumar,S., Boehm,J., Lee,J.C. (2003). p38 MAP kinases: key signalling molecules as therapeutic targets for inflammatory diseases. *Nat.Rev.Drug Discov.* 2, 717-726.
- Kuo,C.C., Shor,A., Campbell,L.A., Fukushi,H., Patton,D.L., Grayston,J.T. (1993). Demonstration of Chlamydia pneumoniae in atherosclerotic lesions of coronary arteries. *J Infect.Dis* 167, 841-849.
- Lang,P., Gesbert,F., Delespine-Carmagnat,M., Stancou,R., Pouchelet,M., Bertoglio,J. (1996). Protein kinase A phosphorylation of RhoA mediates the morphological and functional effects of cyclic AMP in cytotoxic lymphocytes. *EMBO J* 15, 510-519.
- Lea,M.A., Randolph,V.M., Lee,J.E., desBordes,C. (2001). Induction of histone acetylation in mouse erythroleukemia cells by some organosulfur compounds including allyl isothiocyanate. *Int.J Cancer.* 92, 784-789.
- Lehner,M.D., Morath,S., Michelsen,K.S., Schumann,R.R., Hartung,T. (2001). Induction of cross-tolerance by lipopolysaccharide and highly purified lipoteichoic acid via different Toll-like receptors independent of paracrine mediators. *J Immunol* 166, 5161-5167.
- Leoni,F., Zaliani,A., Bertolini,G., Porro,G., Pagani,P., Pozzi,P., Dona,G., Fossati,G., Sozzani,S., Azam,T., Bufler,P., Fantuzzi,G., Goncharov,I., Kim,S.H., Pomerantz,B.J., Reznikov,L.L., Siegmund,B., Dinarello,C.A., Mascagni,P. (2002). The antitumor histone deacetylase inhibitor suberoylanilide hydroxamic acid exhibits antiinflammatory properties via suppression of cytokines. *Proc Natl.Acad.Sci U.S.A.* 99, 2995-3000.
- Li,J., Gorospe,M., Barnes,J., Liu,Y. (2003). Tumor promoter arsenite stimulates histone H3 phosphoacetylation of proto-oncogenes c-fos and c-Jun chromatin in human diploid fibroblasts. *J Biol Chem.* 278, 13183-13191.
- Li,J., Kartha,S., Iaslovovskaia,S., Tan,A., Bhat,R.K., Manaligod,J.M., Page,K., Brasier,A.R., Hershenson,M.B. (2002). Regulation of human airway epithelial cell IL-8 expression by MAP kinases. *Am J Physiol Lung Cell Mol Physiol.* 283, L690-L699.
- Li,J., Ma,Z., Tang,Z.L., Stevens,T., Pitt,B., Li,S. (2004). CpG DNA-mediated immune response in pulmonary endothelial cells. *Am J Physiol Lung Cell Mol Physiol* 287, L552-L558.
- Lin,H.Y., Chen,C.S., Lin,S.P., Weng,J.R., Chen,C.S. (2006). Targeting histone deacetylase in cancer therapy. *Med Res.Rev* 26, 397-413.
- Lingnau,A., Domann,E., Hudel,M., Bock,M., Nichterlein,T., Wehland,J., Chakraborty,T. (1995). Expression of the Listeria monocytogenes EGD inLA and inLB genes, whose products mediate bacterial entry into tissue culture cell lines, by PrfA-dependent and -independent mechanisms. *Infect.Immun.* 63, 3896-3903.

## LITERATURVERZEICHNIS

---

- Liuba,P., Karnani,P., Pesonen,E., Paakkari,I., Forslid,A., Johansson,L., Persson,K., Wadstrom,T., Laurini,R. (2000). Endothelial dysfunction after repeated Chlamydia pneumoniae infection in apolipoprotein E-knockout mice. *Circulation* 102, 1039-1044.
- Lo,W.S., Duggan,L., Emre,N.C., Belotserkovskya,R., Lane,W.S., Shiekhattar,R., Berger,S.L. (2001). Snf1--a histone kinase that works in concert with the histone acetyltransferase Gcn5 to regulate transcription. *Science*. 293, 1142-1146.
- Lo,W.S., Trievel,R.C., Rojas,J.R., Duggan,L., Hsu,J.Y., Allis,C.D., Marmorstein,R., Berger,S.L. (2000). Phosphorylation of serine 10 in histone H3 is functionally linked in vitro and in vivo to Gcn5-mediated acetylation at lysine 14. *Mol Cell* 5, 917-926.
- Loucks,F.A., Le,S.S., Zimmermann,A.K., Ryan,K.R., Barth,H., Aktories,K., Linseman,D.A. (2006). Rho family GTPase inhibition reveals opposing effects of mitogen-activated protein kinase kinase/extracellular signal-regulated kinase and Janus kinase/signal transducer and activator of transcription signaling cascades on neuronal survival. *J Neurochem*. 97, 957-967.
- Loury,R., Sassone-Corsi,P. (2003). Histone phosphorylation: how to proceed. *Methods* 31, 40-48.
- Lowes,V.L., Ip,N.Y., Wong,Y.H. (2002). Integration of signals from receptor tyrosine kinases and g protein-coupled receptors. *Neurosignals*. 11, 5-19.
- Lutgens,E., Faber,B., Schapira,K., Evelo,C.T., van Haaften,R., Heeneman,S., Cleutjens,K.B., Bijnens,A.P., Beckers,L., Porter,J.G., Mackay,C.R., Rennert,P., Bailly,V., Jarpe,M., Dolinski,B., Koteliansky,V., de Fougerolles,T., Daemen,M.J. (2005). Gene profiling in atherosclerosis reveals a key role for small inducible cytokines: validation using a novel monocyte chemoattractant protein monoclonal antibody. *Circulation*. 111, 3443-3452.
- Maaser,C., Heidemann,J., von Eiff,C., Lugering,A., Spahn,T.W., Binion,D.G., Domschke,W., Lugering,N., Kucharzik,T. (2004). Human intestinal microvascular endothelial cells express Toll-like receptor 5: a binding partner for bacterial flagellin. *J Immunol* 172, 5056-5062.
- Maass,M., Bartels,C., Kruger,S., Krause,E., Engel,P.M., Dalhoff,K. (1998). Endovascular presence of Chlamydia pneumoniae DNA is a generalized phenomenon in atherosclerotic vascular disease. *Atherosclerosis 140 Suppl 1:S25-30.*, S25-S30.
- Mahony,J.B. (2002). Chlamydiae host cell interactions revealed using DNA microarrays. *Ann N Y Acad Sci*. 975:192-201., 192-201.
- Mannonen,L., Kamping,E., Penttila,T., Puolakkainen,M. (2004). IFN-gamma induced persistent Chlamydia pneumoniae infection in HL and Mono Mac 6 cells: characterization by real-time quantitative PCR and culture. *Microb.Pathog*. 36, 41-50.
- Mantovani,A., Dinarello,C., Ghezzi,P. (2000). Pharmacology of Cytokines. Oxford University Press

## LITERATURVERZEICHNIS

---

- Marks,P., Rifkind,R.A., Richon,V.M., Breslow,R., Miller,T., Kelly,W.K. (2001). Histone deacetylases and cancer: causes and therapies. *Nat Rev Cancer* 1, 194-202.
- Marks,P.A., Richon,V.M., Miller,T., Kelly,W.K. (2004). Histone deacetylase inhibitors. *Adv.Cancer Res.* 91, 137-168.
- Marks,P.A., Richon,V.M., Rifkind,R.A. (2000). Histone deacetylase inhibitors: inducers of differentiation or apoptosis of transformed cells. *J Natl.Cancer Inst.* 92, 1210-1216.
- Mastronarde,J.G., Monick,M.M., Mukaida,N., Matsushima,K., Hunninghake,G.W. (1998). Activator protein-1 is the preferred transcription factor for cooperative interaction with nuclear factor-kappaB in respiratory syncytial virus-induced interleukin-8 gene expression in airway epithelium. *J Infect.Dis* 177, 1275-1281.
- May,A.E., Redecke,V., Gruner,S., Schmidt,R., Massberg,S., Miethke,T., Ryba,B., Prazeres,d.C., Schomig,A., Neumann,F.J. (2003). Recruitment of Chlamydia pneumoniae-infected macrophages to the carotid artery wall in noninfected, nonatherosclerotic mice. *Arterioscler.Thromb.Vasc.Biol.* 23, 789-794.
- McManus,K.J., Hendzel,M.J. (2003). Quantitative analysis of CBP- and P300-induced histone acetylations in vivo using native chromatin. *Mol Cell Biol.* 23, 7611-7627.
- Meylan,E., Tschopp,J., Karin,M. (2006). Intracellular pattern recognition receptors in the host response. *Nature*. 442, 39-44.
- Michel,R., Muller,K.D., Hoffmann,R. (2001). Enlarged Chlamydia-like organisms as spontaneous infection of Acanthamoeba castellanii. *Parasitol.Res.* 87, 248-251.
- Milohanic,E., Jonquieres,R., Glaser,P., Dehoux,P., Jacquet,C., Berche,P., Cossart,P., Gaillard,J.L. (2004). Sequence and binding activity of the autolysin-adhesin Ami from epidemic Listeria monocytogenes 4b. *Infect.Immun.* 72, 4401-4409.
- Minucci,S., Pelicci,P.G. (2006). Histone deacetylase inhibitors and the promise of epigenetic (and more) treatments for cancer. *Nat.Rev.Cancer* 6, 38-51.
- Mizzen,C.A., Allis,C.D. (1998). Linking histone acetylation to transcriptional regulation. *Cell Mol Life Sci.* 54, 6-20.
- Moazed,T.C., Kuo,C., Grayston,J.T., Campbell,L.A. (1997). Murine models of Chlamydia pneumoniae infection and atherosclerosis. *J Infect.Dis* 175, 883-890.
- Molestina,R.E., Dean,D., Miller,R.D., Ramirez,J.A., Summersgill,J.T. (1998). Characterization of a strain of Chlamydia pneumoniae isolated from a coronary atheroma by analysis of the omp1 gene and biological activity in human endothelial cells. *Infect.Immun.* 66, 1370-1376.
- Mosmann,T.R., Sad,S. (1996). The expanding universe of T-cell subsets: Th1, Th2 and more. *Immunol Today* 17, 138-146.

## LITERATURVERZEICHNIS

---

Moulder,J.W. (1991). Interaction of chlamydiae and host cells in vitro. *Microbiol.Rev.* 55, 143-190.

Muegge,K. (2002). Preparing the target for the bullet. *Nat.Immunol* 3, 16-17.

Muhlestein,J.B., Anderson,J.L., Hammond,E.H., Zhao,L., Trehan,S., Schwobe,E.P., Carlquist,J.F. (1998). Infection with Chlamydia pneumoniae accelerates the development of atherosclerosis and treatment with azithromycin prevents it in a rabbit model. *Circulation* 97, 633-636.

Murayama,T., Ohara,Y., Obuchi,M., Khabar,K.S., Higashi,H., Mukaida,N., Matsushima,K. (1997). Human cytomegalovirus induces interleukin-8 production by a human monocytic cell line, THP-1, through acting concurrently on AP-1- and NF-kappaB-binding sites of the interleukin-8 gene. *J Virol.* 71, 5692-5695.

Netea,M.G., Kullberg,B.J., Galama,J.M., Stalenhoef,A.F., Dinarello,C.A., Van der Meer,J.W. (2002). Non-LPS components of Chlamydia pneumoniae stimulate cytokine production through Toll-like receptor 2-dependent pathways. *Eur J Immunol* 32, 1188-1195.

Ni,W., Egashira,K., Kataoka,C., Kitamoto,S., Koyanagi,M., Inoue,S., Takeshita,A. (2001). Antiinflammatory and antiarteriosclerotic actions of HMG-CoA reductase inhibitors in a rat model of chronic inhibition of nitric oxide synthesis. *Circ Res.* 89, 415-421.

North,R.J. (1970). The relative importance of blood monocytes and fixed macrophages to the expression of cell-mediated immunity to infection. *J Exp.Med.* 132, 521-534.

O'Neill,L.A. (2006). How Toll-like receptors signal: what we know and what we don't know. *Curr.Opin.Immunol.* 18, 3-9.

Ogura,Y., Inohara,N., Benito,A., Chen,F.F., Yamaoka,S., Nunez,G. (2001). Nod2, a Nod1/Apaf-1 family member that is restricted to monocytes and activates NF-kappaB. *J.Biol.Chem.* 276, 4812-4818.

Okamoto,S., Mukaida,N., Yasumoto,K., Horiguchi,H., Matsushima,K. (1993). Molecular mechanism of interleukin-8 gene expression. *Adv.Exp.Med Biol.* 351:87-97., 87-97.

Olofsson,B. (1999). Rho guanine dissociation inhibitors: pivotal molecules in cellular signalling. *Cell Signal.* 11, 545-554.

Opitz,B., Forster,S., Hocke,A.C., Maass,M., Schmeck,B., Hippensiel,S., Suttorp,N., Krüll,M. (2005). Nod1-mediated endothelial cell activation by Chlamydophila pneumoniae. *Circ.Res.* 96, 319-326.

Opitz,B., Puschel,A., Beermann,W., Hocke,A.C., Forster,S., Schmeck,B., van,L., V, Chakraborty,T., Suttorp,N., Hippensiel,S. (2006). Listeria monocytogenes activated p38 MAPK and induced IL-8 secretion in a nucleotide-binding oligomerization domain 1-dependent manner in endothelial cells. *J Immunol.* 176, 484-490.

## LITERATURVERZEICHNIS

---

Opitz,B., Puschel,A., Schmeck,B., Hocke,A.C., Rousseau,S., Hammerschmidt,S., Schumann,R.R., Suttorp,N., Hippensiel,S. (2004). Nucleotide-binding oligomerization domain proteins are innate immune receptors for internalized *Streptococcus pneumoniae*. *J Biol Chem* 279, 36426-36432.

Opitz,B., Schroder,N.W., Spreitzer,I., Michelsen,K.S., Kirschning,C.J., Hallatschek,W., Zahringer,U., Hartung,T., Gobel,U.B., Schumann,R.R. (2001). Toll-like receptor-2 mediates *Treponema* glycolipid and lipoteichoic acid-induced NF-kappaB translocation. *J.Biol.Chem.* 276, 22041-22047.

Pamer,E.G. (2004). Immune responses to *Listeria monocytogenes*. *Nat.Rev.Immunol.* 4, 812-823.

Parida,S.K., Domann,E., Rohde,M., Muller,S., Darji,A., Hain,T., Wehland,J., Chakraborty,T. (1998). Internalin B is essential for adhesion and mediates the invasion of *Listeria monocytogenes* into human endothelial cells. *Mol.Microbiol.* 28, 81-93.

Peterson,C.L., Laniel,M.A. (2004). Histones and histone modifications  
1. *Curr.Biol* 14, R546-R551.

Poltorak,A., He,X., Smirnova,I., Liu,M.Y., Van Huffel,C., Du,X., Birdwell,D., Alejos,E., Silva,M., Galanos,C., Freudenberg,M., Ricciardi-Castagnoli,P., Layton,B., Beutler,B. (1998). Defective LPS signaling in C3H/HeJ and C57BL/10ScCr mice: mutations in Tlr4 gene. *Science* 282, 2085-2088.

Portnoy,D.A., Auerbuch,V., Glomski,I.J. (2002). The cell biology of *Listeria monocytogenes* infection: the intersection of bacterial pathogenesis and cell-mediated immunity. *J Cell Biol* 158, 409-414.

Portnoy,D.A., Schreiber,R.D., Connelly,P., Tilney,L.G. (1989). Gamma interferon limits access of *Listeria monocytogenes* to the macrophage cytoplasm. *J Exp.Med.* 170, 2141-2146.

Rahman,A., Anwar,K.N., Minhajuddin,M., Bijli,K.M., Javaid,K., True,A.L., Malik,A.B. (2004a). cAMP targeting of p38 MAP kinase inhibits thrombin-induced NF-kappaB activation and ICAM-1 expression in endothelial cells. *Am J Physiol Lung Cell Mol Physiol* 287, L1017-L1024.

Rahman,I., Marwick,J., Kirkham,P. (2004b). Redox modulation of chromatin remodeling: impact on histone acetylation and deacetylation, NF-kappaB and pro-inflammatory gene expression. *Biochem.Pharmacol.* 68, 1255-1267.

Remer,K.A., Reimer,T., Brcic,M., Jungi,T.W. (2005). Evidence for involvement of peptidoglycan in the triggering of an oxidative burst by *Listeria monocytogenes* in phagocytes. *Clin.Exp.Immunol.* 140, 73-80.

Richon,V.M., Emiliani,S., Verdin,E., Webb,Y., Breslow,R., Rifkind,R.A., Marks,P.A. (1998). A class of hybrid polar inducers of transformed cell differentiation inhibits histone deacetylases. *Proc Natl.Acad.Sci U.S.A.* 95, 3003-3007.

## LITERATURVERZEICHNIS

---

- Rikitake,Y., Liao,J.K. (2005). Rho GTPases, statins, and nitric oxide. *Circ Res.* 97, 1232-1235.
- Rincon,M., Enslen,H., Raingeaud,J., Recht,M., Zapton,T., Su,M.S., Penix,L.A., Davis,R.J., Flavell,R.A. (1998). Interferon-gamma expression by Th1 effector T cells mediated by the p38 MAP kinase signaling pathway. *EMBO J.* 17, 2817-2829.
- Roblin,P.M., Dumornay,W., Hammerschlag,M.R. (1992). Use of HEp-2 cells for improved isolation and passage of Chlamydia pneumoniae. *J Clin Microbiol.* 30, 1968-1971.
- Roebuck,K.A. (1999). Regulation of interleukin-8 gene expression. *J Interferon Cytokine Res.* 19, 429-438.
- Roesler,J., Kofink,B., Wendisch,J., Heyden,S., Paul,D., Friedrich,W., Casanova,J.L., Leupold,W., Gahr,M., Rosen-Wolff,A. (1999). Listeria monocytogenes and recurrent mycobacterial infections in a child with complete interferon-gamma-receptor (IFNgammaR1) deficiency: mutational analysis and evaluation of therapeutic options. *Exp Hematol.* 27, 1368-1374.
- Rogers,H.W., Unanue,E.R. (1993). Neutrophils are involved in acute, nonspecific resistance to Listeria monocytogenes in mice. *Infect Immun.* 61, 5090-5096.
- Roloff,T.C., Nuber,U.A. (2005). Chromatin, epigenetics and stem cells. *Eur J Cell Biol.* 84, 123-135.
- Rose,F., Zeller,S.A., Chakraborty,T., Domann,E., Machleidt,T., Kronke,M., Seeger,W., Grimminger,F., Sibelius,U. (2001). Human endothelial cell activation and mediator release in response to Listeria monocytogenes virulence factors. *Infect Immun.* 69, 897-905.
- Ross,R. (1999). Atherosclerosis--an inflammatory disease. *N Engl J Med.* 340, 115-126.
- Rothfuchs,A.G., Trumstedt,C., Mattei,F., Schiavoni,G., Hidmark,A., Wigzell,H., Rottenberg,M.E. (2006). STAT1 regulates IFN-alpha beta- and IFN-gamma-dependent control of infection with Chlamydia pneumoniae by nonhemopoietic cells. *J Immunol.* 176, 6982-6990.
- Rottenberg,M.E., Gigliotti Rothfuchs,A.C., Gigliotti,D., Svanholm,C., Bandholtz,L., Wigzell,H. (1999). Role of innate and adaptive immunity in the outcome of primary infection with Chlamydia pneumoniae, as analyzed in genetically modified mice. *J Immunol.* 162, 2829-2836.
- Rottenberg,M.E., Gigliotti,R.A., Gigliotti,D., Ceausu,M., Une,C., Levitsky,V., Wigzell,H. (2000). Regulation and role of IFN-gamma in the innate resistance to infection with Chlamydia pneumoniae. *J Immunol* 164, 4812-4818.
- Rydkina,E., Silverman,D.J., Sahni,S.K. (2005). Activation of p38 stress-activated protein kinase during Rickettsia rickettsii infection of human endothelial cells: role in the induction of chemokine response. *Cell Microbiol.* 7, 1519-1530.

## LITERATURVERZEICHNIS

---

Saccani,S., Pantano,S., Natoli,G. (2002). p38-Dependent marking of inflammatory genes for increased NF-kappa B recruitment. *Nat.Immunol.* 3, 69-75.

Saikku,P., Leinonen,M., Tenkanen,L., Linnanmaki,E., Ekman,M.R., Manninen,V., Manttari,M., Frick,M.H., Huttunen,J.K. (1992). Chronic Chlamydia pneumoniae infection as a risk factor for coronary heart disease in the Helsinki Heart Study. *Ann Intern.Med* 116, 273-278.

Saklatvala,J. (2004). The p38 MAP kinase pathway as a therapeutic target in inflammatory disease. *Curr.Opin.Pharmacol.* 4, 372-377.

Sander,D., Winbeck,K., Klingelhofer,J., Etgen,T., Conrad,B. (2001). Enhanced progression of early carotid atherosclerosis is related to Chlamydia pneumoniae (Taiwan acute respiratory) seropositivity. *Circulation* 103, 1390-1395.

Sasu,S., LaVerda,D., Qureshi,N., Golenbock,D.T., Beasley,D. (2001). Chlamydia pneumoniae and chlamydial heat shock protein 60 stimulate proliferation of human vascular smooth muscle cells via toll-like receptor 4 and p44/p42 mitogen-activated protein kinase activation. *Circ.Res.* 89, 244-250.

Schmeck, B., Beermann, W., van Laak, V., Opitz, B., Eitel, J., Chakraborty, T., Schmidt, G., Barth, H., Suttorp, N., and Hippenstiel, S. (2006a). Listeria monocytogenes internalization and signal transduction are Rac1-dependent in endothelial cells. *Biochem.Pharmacol.* (akzeptiert Juni 2006)

Schmeck,B., Brunsch,M., Seybold,J., Krüll,M., Eichel-Streiber,C., Suttorp,N., Hippenstiel,S. (2003). Rho protein inhibition blocks cyclooxygenase-2 expression by proinflammatory mediators in endothelial cells. *Inflammation.* 27, 89-95.

Schmeck,B., Huber,S., Moog,K., Zahlten,J., Hocke,A.C., Opitz,B., Hammerschmidt,S., Mitchell,T.J., Kracht,M., Rousseau,S., Suttorp,N., Hippenstiel,S. (2006b). Pneumococci induced TLR- and Rac1-dependent NF-kappaB-recruitment to the IL-8 promoter in lung epithelial cells. *Am J Physiol Lung Cell Mol Physiol* 290, L730-L737.

Schmeck,B., Zahlten,J., Moog,K., van,L., V, Huber,S., Hocke,A.C., Opitz,B., Hoffmann,E., Kracht,M., Zerrahn,J., Hammerschmidt,S., Rousseau,S., Suttorp,N., Hippenstiel,S. (2004). Streptococcus pneumoniae-induced p38 MAPK-dependent phosphorylation of RelA at the interleukin-8 promotor. *J Biol.Chem.* 279, 53241-53247.

Schmidt,A., Hall,A. (2002). Guanine nucleotide exchange factors for Rho GTPases: turning on the switch. *Genes Dev.* 16, 1587-1609.

Schwarzer,N., Nost,R., Seybold,J., Parida,S.K., Fuhrmann,O., Krüll,M., Schmidt,R., Newton,R., Hippenstiel,S., Domann,E., Chakraborty,T., Suttorp,N. (1998). Two distinct phospholipases C of Listeria monocytogenes induce ceramide generation, nuclear factor-kappa B activation, and E-selectin expression in human endothelial cells. *J Immunol.* 161, 3010-3018.

## LITERATURVERZEICHNIS

---

Seebach,J., Bartholdi,D., Frei,K., Spanaus,K.S., Ferrero,E., Widmer,U., Isenmann,S., Strieter,R.M., Schwab,M., Pfister,H., Fontana,A. (1995). Experimental Listeria meningoencephalitis. Macrophage inflammatory protein-1 alpha and -2 are produced intrathecally and mediate chemotactic activity in cerebrospinal fluid of infected mice. *J Immunol* 155, 4367-4375.

Seeliger, H. P. R. *Listeria*. 2, 1235-1245. 1986. *Bacteriology*.

Ref Type: Generic

Sethi,S., Murphy,T.F. (2001). Bacterial infection in chronic obstructive pulmonary disease in 2000: a state-of-the-art review. *Clin.Microbiol.Rev.* 14, 336-363.

Shinomiya,N., Tsuru,S., Katsura,Y., Kayashima,S., Nomoto,K. (1991). Enhanced resistance against *Listeria monocytogenes* achieved by pretreatment with granulocyte colony-stimulating factor. *Infect.Immun.* 59, 4740-4743.

Sibelius,U., Schulz,E.C., Rose,F., Hattar,K., Jacobs,T., Weiss,S., Chakraborty,T., Seeger,W., Grimminger,F. (1999). Role of *Listeria monocytogenes* exotoxins listeriolysin and phosphatidylinositol-specific phospholipase C in activation of human neutrophils. *Infect.Immun.* 67, 1125-1130.

Singh,R., Wang,B., Shirvaikar,A., Khan,S., Kamat,S., Schelling,J.R., Konieczkowski,M., Sedor,J.R. (1999). The IL-1 receptor and Rho directly associate to drive cell activation in inflammation. *J Clin.Invest.* 103, 1561-1570.

Sirard,J.C., Bayardo,M., Didierlaurent,A. (2006). Pathogen-specific TLR signaling in mucosa: mutual contribution of microbial TLR agonists and virulence factors. *Eur J Immunol* 36, 260-263.

Skeen,M.J., Ziegler,H.K. (1993). Intercellular interactions and cytokine responsiveness of peritoneal alpha/beta and gamma/delta T cells from *Listeria*-infected mice: synergistic effects of interleukin 1 and 7 on gamma/delta T cells. *J Exp.Med.* 178, 985-996.

Slaghuis,J., Goetz,M., Engelbrecht,F., Goebel,W. (2004). Inefficient replication of *Listeria innocua* in the cytosol of mammalian cells. *J Infect.Dis* 189, 393-401.

Soloaga,A., Thomson,S., Wiggin,G.R., Rampersaud,N., Dyson,M.H., Hazzalin,C.A., Mahadevan,L.C., Arthur,J.S. (2003). MSK2 and MSK1 mediate the mitogen- and stress-induced phosphorylation of histone H3 and HMG-14. *EMBO J* 22, 2788-2797.

Spencer,V.A., Sun,J.M., Li,L., Davie,J.R. (2003). Chromatin immunoprecipitation: a tool for studying histone acetylation and transcription factor binding. *Methods* 31, 67-75.

Stetson,D.B., Mohrs,M., Reinhardt,R.L., Baron,J.L., Wang,Z.E., Gapin,L., Kronenberg,M., Locksley,R.M. (2003). Constitutive cytokine mRNAs mark natural killer (NK) and NK T cells poised for rapid effector function. *J Exp.Med.* 198, 1069-1076.

## LITERATURVERZEICHNIS

---

- Stevens,J.M., Galyov,E.E., Stevens,M.P. (2006). Actin-dependent movement of bacterial pathogens. *Nat.Rev.Microbiol.* 4, 91-101.
- Strahl,B.D., Allis,C.D. (2000). The language of covalent histone modifications. *Nature* 403, 41-45.
- Strieter,R.M. (2002). Interleukin-8: a very important chemokine of the human airway epithelium. *Am J Physiol Lung Cell Mol Physiol.* 283, L688-L689.
- Struhl,K. (1998). Histone acetylation and transcriptional regulatory mechanisms. *Genes Dev.* 12, 599-606.
- Summersgill,J.T., Molestina,R.E., Miller,R.D., Ramirez,J.A. (2000). Interactions of Chlamydia pneumoniae with human endothelial cells. *J Infect.Dis* 181 Suppl 3:S479-82., S479-S482.
- Summersgill,J.T., Sahney,N.N., Gaydos,C.A., Quinn,T.C., Ramirez,J.A. (1995). Inhibition of Chlamydia pneumoniae growth in HEp-2 cells pretreated with gamma interferon and tumor necrosis factor alpha. *Infect.Immun.* 63, 2801-2803.
- Takeda,K., Akira,S. (2005). Toll-like receptors in innate immunity. *Int.Immunol.* 17, 1-14.
- Takemoto,M., Liao,J.K. (2001). Pleiotropic effects of 3-hydroxy-3-methylglutaryl coenzyme a reductase inhibitors. *Arterioscler.Thromb.Vasc.Biol* 21, 1712-1719.
- Tato,C.M., Martins,G.A., High,F.A., DiCioccio,C.B., Reiner,S.L., Hunter,C.A. (2004). Cutting Edge: Innate production of IFN-gamma by NK cells is independent of epigenetic modification of the IFN-gamma promoter. *J Immunol.* 173, 1514-1517.
- Taylor-Robinson,D., Thomas,B.J. (2000). Chlamydia pneumoniae in atherosclerotic tissue. *J Infect.Dis* 181 Suppl 3, S437-S440.
- Tesfamariam,B. (2006). The Effects of HMG-CoA Reductase Inhibitors on Endothelial Function. *Am J Cardiovasc Drugs* 6, 115-120.
- Thale,C., Kiderlen,A.F. (2005). Sources of interferon-gamma (IFN-gamma) in early immune response to Listeria monocytogenes. *Immunobiology.* 210, 673-683.
- Thiagalingam,S., Cheng,K.H., Lee,H.J., Mineva,N., Thiagalingam,A., Ponte,J.F. (2003). Histone deacetylases: unique players in shaping the epigenetic histone code. *Ann N Y Acad.Sci* 983:84-100., 84-100.
- Tilney,L.G., Portnoy,D.A. (1989). Actin filaments and the growth, movement, and spread of the intracellular bacterial parasite, Listeria monocytogenes. *J Cell Biol.* 109, 1597-1608.
- Tissari,J., Siren,J., Meri,S., Julkunen,I., Matikainen,S. (2005). IFN-alpha enhances TLR3-mediated antiviral cytokine expression in human endothelial and epithelial cells by up-regulating TLR3 expression. *J Immunol* 174, 4289-4294.

## LITERATURVERZEICHNIS

---

- Tomita,K., Barnes,P.J., Adcock,I.M. (2003). The effect of oxidative stress on histone acetylation and IL-8 release. *Biochem.Biophys.Res.Commun.* 301, 572-577.
- Turner,B.M. (2002). Cellular memory and the histone code. *Cell.* 111, 285-291.
- Tzima,E. (2006). Role of small GTPases in endothelial cytoskeletal dynamics and the shear stress response. *Circ.Res.* 98, 176-185.
- Valapour,M., Guo,J., Schroeder,J.T., Keen,J., Cianferoni,A., Casolaro,V., Georas,S.N. (2002). Histone deacetylation inhibits IL4 gene expression in T cells. *J Allergy Clin.Immunol.* 109, 238-245.
- van Holde,K.E. (1988). Chromatin. New York.
- Vazquez-Boland,J.A., Kuhn,M., Berche,P., Chakraborty,T., Dominguez-Bernal,G., Goebel,W., Gonzalez-Zorn,B., Wehland,J., Kreft,J. (2001). Listeria pathogenesis and molecular virulence determinants. *Clin.Microbiol.Rev.* 14, 584-640.
- Viratyosin,W., Campbell,L.A., Kuo,C.C., Rockey,D.D. (2002). Intrastrain and interstrain genetic variation within a paralogous gene family in Chlamydia pneumoniae. *BMC Microbiol.* 2, 38.
- Wang,H.R., Zhang,Y., Ozdamar,B., Ogunjimi,A.A., Alexandrova,E., Thomsen,G.H., Wrana,J.L. (2003). Regulation of cell polarity and protrusion formation by targeting RhoA for degradation. *Science* 302, 1775-1779.
- Whitmarsh,A.J., Davis,R.J. (1999). Signal transduction by MAP kinases: regulation by phosphorylation-dependent switches. *Sci STKE*. 1999, E1.
- Wissel,H., Schulz,C., Koehne,P., Richter,E., Maass,M., Rudiger,M. (2005). Chlamydophila pneumoniae induces expression of toll-like receptor 4 and release of TNF-alpha and MIP-2 via an NF-kappaB pathway in rat type II pneumocytes. *Respir Res.* 6, 51.
- Wolffe,A.P., Kurumizaka,H. (1998). The nucleosome: a powerful regulator of transcription. *Prog.Nucleic Acid Res.Mol Biol.* 61:379-422., 379-422.
- Wolfrum,S., Dendorfer,A., Rikitake,Y., Stalker,T.J., Gong,Y., Scalia,R., Dominiak,P., Liao,J.K. (2004). Inhibition of Rho-kinase leads to rapid activation of phosphatidylinositol 3-kinase/protein kinase Akt and cardiovascular protection. *Arterioscler.Thromb.Vasc.Biol.* 24, 1842-1847.
- Wong,K.H., Skelton,S.K., Chan,Y.K. (1992). Efficient culture of Chlamydia pneumoniae with cell lines derived from the human respiratory tract. *J Clin.Microbiol.* 30, 1625-1630.
- Wu,C. (1997). Chromatin remodeling and the control of gene expression. *J Biol Chem.* 272, 28171-28174.

## LITERATURVERZEICHNIS

---

- Wu,L., Skinner,S.J., Lambie,N., Vuletic,J.C., Blasi,F., Black,P.N. (2000). Immunohistochemical staining for Chlamydia pneumoniae is increased in lung tissue from subjects with chronic obstructive pulmonary disease. *Am J Respir Crit Care Med* 162, 1148-1151.
- Xiao,G., Fong,A., Sun,S.C. (2004). Induction of p100 processing by NF-kappaB-inducing kinase involves docking IkappaB kinase alpha (IKKalpha) to p100 and IKKalpha-mediated phosphorylation. *J Biol Chem* 279, 30099-30105.
- Xiao,G., Harhaj,E.W., Sun,S.C. (2001). NF-kappaB-inducing kinase regulates the processing of NF-kappaB2 p100. *Mol Cell* 7, 401-409.
- Yang,J., Hooper,W.C., Phillips,D.J., Tondella,M.L., Talkington,D.F. (2003a). Induction of proinflammatory cytokines in human lung epithelial cells during Chlamydia pneumoniae infection. *Infect Immun.* 71, 614-620.
- Yang,S.H., Sharrocks,A.D., Whitmarsh,A.J. (2003b). Transcriptional regulation by the MAP kinase signaling cascades. *Gene* 320:3-21., 3-21.
- Yilmaz,A., Reiss,C., Tantawi,O., Weng,A., Stumpf,C., Raaz,D., Ludwig,J., Berger,T., Steinkasserer,A., Daniel,W.G., Garlichs,C.D. (2004). HMG-CoA reductase inhibitors suppress maturation of human dendritic cells: new implications for atherosclerosis. *Atherosclerosis* 172, 85-93.
- Yoshida,M., Kijima,M., Akita,M., Beppu,T. (1990). Potent and specific inhibition of mammalian histone deacetylase both in vivo and in vitro by trichostatin A. *J Biol Chem.* 265, 17174-17179.
- Yoshida,M., Matsuyama,A., Komatsu,Y., Nishino,N. (2003). From discovery to the coming generation of histone deacetylase inhibitors. *Curr.Med Chem* 10, 2351-2358.
- Zhang,S., Kaplan,M.H. (2000). The p38 mitogen-activated protein kinase is required for IL-12-induced IFN-gamma expression. *J Immunol.* 165, 1374-1380.
- Zhu,H., Yang,J., Murphy,T.L., Ouyang,W., Wagner,F., Saparov,A., Weaver,C.T., Murphy,K.M. (2001). Unexpected characteristics of the IFN-gamma reporters in nontransformed T cells. *J Immunol.* 167, 855-865.