

## 6 Literaturverzeichnis

1. Al-Khalili L, Krämer D, Wretenberg P, Krook A. Human skeletal muscle cell differentiation is associated with changes in myogenic markers and enhanced insulin-mediated MAPK and PKB phosphorylation. *Acta Physiol Scand* 2004; 180:395-403.
2. Alwine JC, Kemp DJ, Stark GR. Method for detection of specific RNAs in agarose gels by transfer to diazobenzyloxymethyl-paper and hybridization with DNA probes. *Proc Natl Acad Sci US A* 1977; 74:5350-4.
3. Arnold G, Beier HM, Herrmann M, et al. Differenzierung des Embryoblast und Entwicklung der Embryonalanhänge. In: Schiebler TH, Schmidt W, Zilles K, eds. *Anatomie*. 7<sup>th</sup> ed. Berlin, Heidelberg, New York: Springer Verlag, 1997:114-28.
4. Arnold G, Beier HM, Herrmann M, et al. Muskelgewebe. In: Schiebler TH, Schmidt W, Zilles K, eds. *Anatomie*. 7<sup>th</sup> ed. Berlin, Heidelberg, New York: Springer Verlag, 1997:70-9.
5. Artero R, Prokop A, Paricio N, et al. The muscleblind gene participates in the organization of Z-bands and epidermal attachments of *Drosophila* muscles and is regulated by Dmef2. *Dev Biol* 1998; 195:131-43.
6. Astolfi A, De Giovanni C, Landuzzi L, et al. Identification of new genes related to the myogenic differentiation arrest of human rhabdomyosarcoma cells. *Gene* 2001; 274:139-49.
7. Begemann G, Paricio N, Artero R, Kiss I, Pérez-Alonso M, Mlodzik M. muscleblind, a gene required for photoreceptor differentiation in *Drosophila*, encodes novel nuclear Cys3His-type zinc-finger-containing proteins. *Development* 1997; 124:4321-31.
8. Bell SE, Sanchez MJ, Spasic-Boskovic O, et al. The RNA binding protein Zfp36l1 is required for normal vascularization and post-transcriptionally regulates VEGF expression. *Dev Dynam* 2006; 235:3144-55.
9. Blackshear PJ, Phillips RS, Ghosh S, et al. Zfp36l3, a rodent X chromosome gene encoding a placenta-specific member of the tristetraprolin family of CCCH tandem zinc finger proteins. *Biol Reprod* 2005; 73:297-307.
10. Blau HM, Stanford University, USA. Personal Communication.

11. Brand-Saberi B. Genetic and epigenetic control of skeletal muscle development. *Ann Anat* 2005; 187:199-207.
12. Burnette WN. 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.
13. Busse M. Die Rolle von TIS11B bei der Skelettmuskel-Zelldifferenzierung. Diploma thesis, Free University Berlin, 2007.
14. Busse M, Schwarzburger M, Berger F, Hacker C, Munz B. Strong induction of the *Tis11B* gene in myogenic differentiation. *Eur J Cell Biol* 2008; 87:31-8.
15. Bustin SA, Nie XF, Barnard RC, et al. Characterization of ERF-1, a human member of the TIS11 family of early-response genes. *DNA Cell Biol* 1994; 13:449-59.
16. Cao H, Tuttle JS, Blackshear PJ. Immunological characterization of tristetraprolin as a low abundance, inducible, stable cytosolic protein. *J Biol Chem* 2004; 279:21489-99.
17. Carballo E, Cao H, Lai WS, Kennington EA, Campbell D, Blackshear PJ. Decreased sensitivity of tristetraprolin-deficient cells to p38 inhibitors suggests the involvement of tristetraprolin in the p38 signaling pathway. *J Biol Chem* 2001; 276: 42580-7.
18. Carballo E, Lai WS, Blackshear PJ. Feedback inhibition of macrophage tumor necrosis factor- $\alpha$  production by tristetraprolin. *Science* 1998; 281:1001-5.
19. Carballo E, Lai WS, Blackshear PJ. Evidence that tristetraprolin is a physiological regulator of granulocyte-macrophage colony-stimulating factor messenger RNA deadenylation and stability. *Blood* 2000; 95:1891-9.
20. Carlson BM. Development of the body systems: Skeletal muscle. In: Carlson BM. *Human embryology and developmental biology*. 3<sup>rd</sup> ed. Philadelphia, USA: Mosby, 2004:195-204.
21. Carlson DL, Lightfoot E, Bryant DD, et al. Burn plasma mediates cardiac myocyte apoptosis via endotoxin. *Am J Physiol Heart Circ Physiol* 2002; 282:H1907-14.
22. Chen CY, Gherzi R, Ong SE, et al. AU binding proteins recruit the exosome to degrade ARE-containing mRNAs. *Cell* 2001; 107:451-64.
23. Chen QM, Tu VC. Apoptosis and heart failure: mechanisms and therapeutic implications. *Am J Cardiovasc Drugs* 2002; 2:43-57.

24. Cheng TC, Wallace MC, Merlie JP, Olson EN. Separable regulatory elements governing myogenin transcription in mouse embryogenesis. *Science* 1993; 261:215-18.
25. Chinn AM, Ciaias D, Bailly S, et al. Identification of two novel ACTH-responsive genes encoding manganese-dependent superoxide dismutase (SOD2) and the zinc finger protein TIS11b [tetradecanoyl phorbol acetate (TPA)-inducible sequence 11b]. *Mol Endocrinol* 2002; 16:1417-27.
26. Christ B, Brand-Saberi S. Limb muscle development. *Int J Dev Biol* 2002; 46:905-14.
27. Ciaias D, Cherradi N, Bailly S, et al. Destabilization of vascular endothelial growth factor mRNA by the zinc-finger protein TIS11b. *Oncogene* 2004; 23:8673-80.
28. Claycomb WC, Lanson NA, Stallworth BS, et al. HL-1 cells: A cardiac muscle cell line that contracts and retains phenotypic characteristics of the adult cardiomyocyte. *Proc Natl Acad Sci USA* 1998; 95:2979-84.
29. Connolly AM, Keeling RM, Mehta S, Pestronk A, Sanes JR. Three mouse models of muscular dystrophy: The natural history of strength and fatigue in dystrophin-, dystrophin/utrophin-, and laminin  $\alpha$ 2-deficient mice. *Neuromuscul Disord* 2001; 11:703-12.
30. Corps AN, Brown KD. Insulin and insulin-like growth factor stimulate expression of the primary response gene cMG1/TIS11b by a wortmannin-sensitive pathway in RIE-1 cells. *FEBS Lett* 1995; 368:160-4.
31. De J, Lai WS, Thorn JM, et al. Identification of four CCCH zinc finger proteins in *Xenopus*, including a novel vertebrate protein with four zinc fingers and severely restricted expression. *Gene* 1999; 228:133-45.
32. Deconinck N, Dan B. Pathophysiology of Duchenne Muscular Dystrophy: Current Hypotheses. *Pediatr Neurol* 2007; 36:1-7.
33. Doran P, Dowling P, Donoghue P, Buffini M, Ohlendieck K. Reduced expression of regucalcin in young and aged mdx diaphragm indicates abnormal cytosolic calcium handling in dystrophin-deficient muscle. *Biochim Biophys Acta* 2006; 1764:773-85.
34. Dorner S, Lum L, Kim M, Paro R, Beachy PA, Green R. A genomewide screen for components of the RNAi pathway in *Drosophila* cultured cells. *Proc Natl Acad Sci USA* 2006; 103:11880-5.

35. DuBois RN, McLane MW, Ryder K, Lau LF, Nathans D. A growth factor-inducible nuclear protein with a novel cysteine/histidine repetitive sequence. *J Biol Chem* 1990; 265:19185-91.
36. Ehlers S, Mueck T, Adams S, Landuzzi L, Lollini PL, Munz B. RIP2 regulates growth and differentiation of normal myoblasts and of rhabdomyosarcoma cells. *Eur J Cell Biol* 2008; 87:163-72.
37. Elahi M, Asopa S, Bashir M. NO-cGMP and TNF- $\alpha$  counter regulatory system in blood: Understanding the mechanisms leading to myocardial dysfunction and failure. *Biochim Biophys Acta* 2007; 1772:5-14
38. Entrez Nucleotide database of the National Center for Biotechnology Information (Bethesda, USA). Accession numbers NM\_011756, NM\_007564, NM\_001001806, NM\_003407, NM\_004926, NM\_006887. (Accessed July 14, 2006, at <http://www.ncbi.nlm.nih.gov/sites/entrez?db=Nucleotide&itool=toolbar>.)
39. Epner DE, Herschman HR. Heavy metals induce expression of the TPA-inducible sequence (TIS) genes. *J Cell Physiol* 1991; 148:68-74.
40. Ferrari R. The role of TNF in cardiovascular disease. *Pharmacol Res* 1999; 40:97-105.
41. Finsterer J, Stöllberger C. The Heart in Human Dystrophinopathies. *Cardiology* 2003; 99:1-19
42. Florini JR, Magri KA. Effects of growth factors on myogenic differentiation. *Am J Physiol* 1989; 256:C701-11.
43. Fuse K, Chan G, Liu Y, et al. Myeloid Differentiation Factor-88 Plays a Crucial Role in the Pathogenesis of Coxsackievirus B3-Induced Myocarditis and Influences Type I Interferon Production. *Circulation* 2005; 112:2276-85.
44. Gehring W. Determination und Differenzierung. In: Wehner R, Gehring W. *Zoologie*. 23<sup>rd</sup> ed. Stuttgart, New York: Georg Thieme Verlag, 1995:220-42.
45. Gomperts M, Corps AN, Pascall JC, Brown KD. Mitogen-induced expression of the primary response gene cMG1 in a rat intestinal epithelial cell line (RIE-1). *FEBS Lett* 1992; 306:1-4.
46. Guo K, Wang J, Andrés V, Smith RC, Walsh K. MyoD-Induced Expression of p21 Inhibits Cyclin-Dependent Kinase Activity upon Myocyte Terminal Differentiation. *Mol Cell Biol* 1995, 15:3823-29.
47. He L, Hannon GJ. MicroRNAs: Small RNAs with a big role in gene regulation. *Nat Rev Genet* 2004; 5:522-31.

48. Heinrich PC, Schaper F, Timmermann A, Martens AS, Lehmann U. Endokrine Funktionen II: Zytokine. In: Löffler G, Petrides PE, eds. Biochemie und Pathobiochemie. 7<sup>th</sup> ed. Berlin, Heidelberg, New York: Springer Verlag, 2003:813-35.
49. Herold G. Coxsackie-Virusinfektionen. In: Herold G, and colleagues. Innere Medizin 2003. Cologne: self-published by the author, 2003:725-6.
50. Herold G. Myokarditis. In: Herold G, and colleagues. Innere Medizin 2003. Cologne: self-published by the author, 2003:190-2.
51. Isobe M, Futamatsu H, Suzuki J. Hepatocyte Growth Factor: Effects on Immune-Mediated Heart Diseases. Trends Cardiovasc Med 2006; 16:188-93.
52. Jackson RS, Cho YJ, Liang P. TIS11D is a candidate pro-apoptotic p53 target gene. Cell Cycle 2006; 5:2889-93.
53. Jainchill JL, Aaronson SA, Todaro GJ. Murine sarcoma and leukemia viruses: assay using clonal lines of contact-inhibited mouse cells. J Virol 1969; 4:549-53.
54. Jing Q, Huang S, Guth S, et al. Involvement of microRNA in AU-rich element-mediated mRNA instability. Cell 2005; 120:623-34.
55. Johnson BA, Geha M, Blackwell TK. Similar but distinct effects of the tristetraprolin/TIS11 immediate-early proteins on cell survival. Oncogene 2000; 19:1657-64.
56. Johnson BA, Stehn JR, Yaffe MB, Blackwell TK. Cytoplasmic localization of tristetraprolin involves 14-3-3-dependent and -independent mechanisms. J Biol Chem 2002; 277:18029-36.
57. Kanadia RN, Urbitani CR, Crusselle VJ, et al. Developmental expression of mouse muscleblind genes Mbnl1, Mbnl2 and Mbnl3. Gene Expr Patterns 2003; 3:459-62.
58. Kandolf R. Molecular biology of viral heart disease. Herz 1993, 18:239-44.
59. Kaushal S, Schneider JW, Nadal-Ginard B, Mahdavi V. Activation of the myogenic lineage by MEF2A, a factor that induces and cooperates with MyoD. Science 1994; 266:1236-40.
60. Keffer J, Probert L, Cazlaris H, et al. Transgenic mice expressing human tumor necrosis factor: a predictive genetic model of arthritis. EMBO J 1991; 10:4025-31
61. Keren A, Tamir Y, Bengal E. The p38 MAPK signaling pathway: A major regulator of skeletal muscle development. Mol Cell Endocrinol 2006; 252:224-30.

62. Kitta K, Day RM, Kim Y, Torregroza I, Evans T, Suzuki YJ. Hepatocyte growth factor induces GATA-4 phosphorylation and cell survival in cardiac muscle cells. *J Biol Chem* 2003; 278:4705-12.
63. Klingel K, Hohenadl C, Canu A, et al. Ongoing enterovirus-induced myocarditis is associated with persistent heart muscle infection: Quantitative analysis of virus replication, tissue damage, and inflammation. *Proc Natl Acad Sci USA* 1992; 89:314-8.
64. Kumar A, Kumar A, Paladugu B, Mensing J, Parrillo JE. Transforming growth factor-beta1 blocks in vitro cardiac myocyte depression induced by tumor necrosis factor-alpha, interleukin-1beta, and human septic shock serum. *Crit Care Med* 2007; 35:358-64.
65. Laemmli UK. Cleavage of structural proteins during the assembly of the head of bacteriophage T4. *Nature* 1970; 227: 680-5.
66. Lagadec P, Raynal S, Lieubeau B, et al. Evidence for Control of Nitric Oxide Synthesis by Intracellular Transforming Growth Factor- $\beta$ 1 in Tumor Cells. *Am J Pathol* 1999; 154:1867-76.
67. Lagrota-Candido J, Vasconcellos R, Cavalcanti M, Bozza M, Savino W, Quirico-Santos T. Resolution of skeletal muscle inflammation in mdx dystrophic mouse is accompanied by increased immunoglobulin and interferon- $\gamma$  production. *Int J Exp Path* 2002; 83:121-32.
68. Lai WS, Blackshear PJ. Interactions of CCCH zinc finger proteins with mRNA: Tristetraprolin-mediated AU-rich element-dependent mRNA degradation can occur in the absence of a poly(A) tail. *J Biol Chem* 2001; 276:23144-54.
69. Lai WS, Carballo E, Strum JR, Kennington EA, Phillips RS, Blackshear PJ. Evidence that tristetraprolin binds to AU-rich elements and promotes the deadenylation and destabilization of tumor necrosis factor alpha mRNA. *Mol Cell Biol* 1999; 19:4311-23.
70. Lai WS, Carballo E, Thorn JM, Kennington EA, Blackshear PJ. Interactions of CCCH zinc finger proteins with mRNA: Binding of tristetraprolin-related zinc finger proteins to AU-rich elements and destabilization of mRNA. *J Biol Chem* 2000; 275:17827-37.
71. Lai WS, Kennington EA, Blackshear PJ. Tristetraprolin and its family members can promote the cell-free deadenylation of AU-rich element-containing mRNAs by poly(A) ribonuclease. *Mol Cell Biol* 2003; 23:3798-812.

72. Lai WS, Parker JS, Grissom SF, Stumpo DJ, Blackshear PJ. Novel mRNA targets for tristetraprolin (TTP) indentified by global analysis of stabilized transcripts in TTP-deficient fibroblasts. *Mol Cell Biol* 2006; 26:9196-208.
73. Lai WS, Stumpo DJ, Blackshear PJ. Rapid insulin-stimulated accumulation of an mRNA encoding a proline-rich protein. *J Biol Chem* 1990; 265:16556-63.
74. Leipner C, Grün K, Schneider I, Glück B, Sigusch HH, Stelzner A. Cocksackievirus B3-induced myocarditis: differences in the immune response of C57BL/6 and Balb/c mice. *Med Microbiol Immunol* 2004; 193:141-7.
75. Li YP, Schwartz RJ. TNF- $\alpha$  regulates early differentiation of C2C12 myoblasts in an autocrine fashion. *FASEB J* 2001; 15:1413-5
76. Lim RW, Varnum BC, Herschman HR. Cloning of tetradecanoyl phorbol ester induced "primary response" sequences and their expression in density-arrested Swiss 3T3 cells and a TPA nonproliferative variant. *Oncogene* 1987; 1:263-70.
77. Lim RW, Varnum BC, O'Brien TG, Herschman HR. Induction of tumor promotor-inducible genes in murine 3T3 cell lines and tetradecanoyl phorbol acetate-nonproliferative 3T3 variants can occur through protein kinase C-dependent and -independent pathways. *Mol Cell Biol* 1989; 9:1790-3.
78. Lollini PL, De Giovanni C, Landuzzi L, Nicoletti G, Scotlandi K, Nanni P. Reduced metastatic ability of in vitro differentiated human rhabdomyosarcoma cells. *Invasion Metastasis* 1991; 11:116-24.
79. Lu JY, Schneider RJ. Tissue distribution of AU-rich mRNA-binding proteins involved in regulation of mRNA decay. *J Biol Chem* 2004; 279:12974-9.
80. Lykke-Andersen J, Wagner E. Recruitment and activation of mRNA decay enzymes by two ARE-mediated decay activation domains in the proteins TTP and BRF-1. *Genes Dev* 2006; 19:351-61.
81. Ma Q, Herschman HR. A corrected sequence for the predicted protein from the mitogen-inducible TIS11 primary response gene. *Oncogene* 1991; 6:1277-8.
82. Ma Q, Herschman HR. The yeast homologue YTIS11, of the mammalian TIS11 gene family is a non-essential, glucose repressible gene. *Oncogene* 1995; 10:487-94.
83. Ma Q, Wadleigh D, Chi T, Herschman H. The *Drosophila* TIS11 homologue encodes a developmentally controlled gene. *Oncogene* 1994; 9:3329-34.

84. Maclean KN, McKay IA, Bustin SA. Differential effects of sodium butyrate on the transcription of the human TIS11 family of early-response genes in colorectal cancer cells. *Br J Biomed Sci* 1998; 55:184-91.
85. Mahtani KR, Brook M, Dean JL, Sully G, Saklatvala J, Clark AR. Mitogen-activated protein kinase p38 controls the expression and posttranslational modification of tristetraprolin, a regulator of tumor necrosis factor alpha mRNA stability. *Mol Cell Biol* 2001; 21:6461-9.
86. Manabe T, Fukuda K, Pan J, Nagasaki K, Yamaguchi K, Ogawa S. Hypertrophic stimuli augment expression of cMG1/ERF-1, a putative zinc-finger motif, in rat cardiomyocytes. *FEBS Lett* 1999; 463:39-42.
87. Marderosian M, Sharma A, Funk AP, et al. Tristetraprolin regulates cyclin D1 and c-myc mRNA stability in response to rapamycin in an Akt-dependent manner via p38 MAPK signaling. *Oncogene* 2006; 25:6277-90.
88. Matsumoto-Ida M, Takimoto Y, Aoyama T, Akao M, Takeda T, Kita T. Activation of TGF- $\beta$ 1-TAK1-p38 MAPK pathway in spared cardiomyocytes is involved in left ventricular remodeling after myocardial infarction in rats. *Am J Physiol Heart Circ Physiol* 2006; 290:H709-15.
89. Meldrum DR. Tumor necrosis factor in the heart. *Am J Physiol Regulatory Integrative Comp Physiol* 1998; 274:577-595.
90. Miller SC, Ito H, Blau HM, Torti FM. Tumor necrosis factor inhibits human myogenesis in vitro. *Mol Cell Biol* 1988; 8:2295-301
91. Monden Y, Kubota T, Inoue T, et al. Tumor necrosis factor-alpha is toxic via receptor 1 and protective via receptor 2 in a murine model of myocardial infarction. *Am J Physiol Heart Circ Physiol* 2007; 293:H743-53.
92. Moran JL, Li Y, Hill AA, Mounts WM, Miller CP. Gene expression changes during mouse skeletal myoblast differentiation revealed by transcriptional profiling. *Physiol Genomics* 2002; 10:103-11.
93. Morgan JE, Partridge TA. Muscle satellite cells. *Int J Biochem Cell Biol* 2003; 35:1151-6.
94. Morishita R, Nakamura S, Hayashi S, et al. Contribution of a vascular modulator, hepatocyte growth factor (HGF), to the pathogenesis of cardiovascular disease. *J Atheroscler Thromb* 1998; 4:128-34.



95. Murata T, Hikita K, Kaneda N. Transcriptional activation function of zinc finger protein TIS11 and its negative regulation by phorbol ester. *Biochem Biophys Res Commun* 2000; 274:526-32.
96. Naidu PS, Ludolph DC, To RQ, Hinterberger TJ, Konieczny SF. Myogenin and MEF2 function synergistically to activate the MRF4 Promoter during myogenesis. *Mol Cell Biol* 1995; 15:2707-18.
97. Nakajima K, Wall R. Interleukin-6 Signals Activating junB and TIS11 Gene Transcription in a B-Cell Hybridoma. *Mol Cell Biol* 1991; 11:1409-18.
98. Neu R. Die Rolle von Entactin-1 und -2 bei der Skelettmuskelzellendifferenzierung. Doctoral thesis, Charité University Medicine Berlin, 2006.
99. Noske-Reimers R, Munz B. (unpublished data)
100. Noutsias M, Pauschinger M, Poller WC, Schultheiss HP, Kühl U. Current insights into the pathogenesis, diagnosis and therapy of inflammatory cardiomyopathy. *Heart Fail Monit* 2003; 3:127-35.
101. Ogawa K, Chen F, Kim YJ, Chen Y. Transcriptional regulation of tristetraprolin by transforming growth factor- $\beta$  in human T cells. *J Biol Chem* 2003; 278:30373-81.
102. Partridge T. Animal models of muscular dystrophy – what can they teach us? *Neuropathol Appl Neurobiol* 1991; 17:353-63.
103. Pascual M, Vincente M, Monferrer L, Artero R. The muscleblind family of proteins: an emerging class of regulators of developmentally programmed alternative splicing. *Differentiation* 2006; 74:65-80.
104. Petrides PE. Endokrine Funktionen IV: Hypothalamisch-hypophysäres System und Zielgewebe. In: Löffler G, Petrides PE, eds. *Biochemie und Pathobiochemie*. 7<sup>th</sup> ed. Berlin, Heidelberg, New York: Springer Verlag, 2003:865-908.
105. Phillips RS, Ramos SBV, Blackshear PJ. Members of the tristetraprolin family of tandem CCCH zinc finger proteins exhibit CRM1-dependent nucleocytoplasmatic shuttling. *J Biol Chem* 2002; 277:11606-13.
106. Poelmann RE, Gittenberger-de Groot AC. Apoptosis as an instrument in cardiovascular development. *Birth Defects Res C Embryo Today* 2005; 75:305-13.
107. Ramos SBV, Stumpo DJ, Kennington EA, et al. The CCCH tandem zinc-finger protein Zfp36l2 is crucial for female fertility and early embryonic development. *Development* 2004; 131:4883-93.

108. Reppe S, Olstad OK, Rian E, Gautvik VT, Gautvik KM, Jemtland R. Butyrate response factor 1 is regulated by parathyroid hormone and bone morphogenetic protein-2 in osteoblastic cells. *Biochem Biophys Res Commun* 2004; 324:218-23.
109. Roig M, Roma J, Fargas A, Munell F. Longitudinal pathologic study of the gastrocnemius muscle group in mdx mice. *Acta Neuropathol* 2004; 107:27-34.
110. Rosenthal SM, Cheng ZQ. Opposing early and late effects of insulin-like growth factor I on differentiation and the cell cycle regulatory retinoblastoma protein in skeletal myoblasts. *Proc Natl Acad Sci USA* 1995; 92:10307-11.
111. Saiki RK, Gelfand DH, Stoffel S, et al. Primer-directed enzymatic amplification of DNA with a thermostable DNA polymerase. *Science* 1988; 239:487-91.
112. Sauer I, Schaljo B, Vogl C, et al. Interferons limit inflammatory responses by induction of tristetraprolin. *Blood* 2006; 107:4790-7.
113. Sawaoka H, Dixon DA, Oates JA, Boutaud O. Tristetraprolin binds to 3'-untranslated region of cyclooxygenase-2 mRNA. *J Biol Chem* 2003; 278:13928-35.
114. Schiebler TH. Mikroskopische Technik. In: Junqueira LC, Carneiro J, Schiebler TH. *Histologie*. 4<sup>th</sup> ed. Berlin, Heidelberg, New York: Springer Verlag, 1996:5-22.
115. Schmidlin M, Lu M, Leuenberger SA, et al. The ARE-dependent mRNA-destabilizing activity of BRF1 is regulated by protein kinase B. *EMBO J* 2004; 23:4760-9.
116. Schröder D, Heger J, Piper HM, Euler G. Angiotensin II stimulates apoptosis via TGF-beta1 signaling in ventricular cardiomyocytes of rat. *J Mol Med* 2006; 84:975-83.
117. Schwimmbeck PL, Bigalke B, Schulze K, Pauschinger M, Kühl U, Schultheiss HP. The humoral immune response in viral heart disease: characterization and pathophysiological significance of antibodies. *Med Microbiol Immunol* 2004; 193:115-9.
118. Shim J, Karin M. The control of mRNA stability in response to extracellular stimuli. *Mol Cell* 2002; 14:323-31.
119. Stedman HH, Sweeney HL, Shrager JB, et al. The mdx mouse diaphragm reproduces the degenerative changes of Duchenne muscular dystrophy. *Nature* 1991; 352:536-9.

120. Stiller D, Roessner A. Weichgewebstumoren. In: Böcker W, Denk H, Heitz PU, eds. Pathologie. 1st ed. Munich, Vienna, Baltimore: Urban und Schwarzenberg, 1997:903-14.
121. Stoecklin G, Colombi M, Raineri I, et al. Functional cloning of BRF-1, a regulator of ARE-dependent mRNA turnover. EMBO J 2002; 21:4709-18.
122. Stoecklin G, Stubbs T, Kedersha N, et al. MK2-induced tristetraprolin: 14-3-3 complexes prevent stress granule association and ARE-mRNA decay. EMBO J 2004; 23:1313-24.
123. Storch KF, Lipan O, Leykin I, et al. Extensive and divergent circadian gene expression in liver and heart. Nature 2002; 417:78-83.
124. Stumpo DJ, Byrd NA, Phillips RS, et al. Chorioallantoic fusion defects and embryonic lethality resulting from disruption of Zfp3611, a gene encoding a CCCH tandem zinc finger protein of the tristetraprolin family. Mol Cell Biol 2004; 24:6445-55.
125. Sun M, Chen M, Dawood F, et al. Tumor necrosis factor-alpha mediates cardiac remodeling and ventricular dysfunction after pressure overload state. Circulation 2007 Mar 20; 115:1398-407.
126. Taimor G, Schlüter KD, Frischkopf K, Flesch M, Rosenkranz S, Piper HM. Autocrine regulation of TGF beta expression in adult cardiomyocytes. J Mol Cell Cardiol 1999; 31:2127-36.
127. Tatusova TA, Madden TL. Blast 2 sequences – a new tool for comparing protein and nucleotide sequences. FEMS Microbiol Lett 1999; 174:247-50.
128. Taylor GA, Carballo E, Lee DM, et al. A pathogenetic role for TNF alpha in the syndrome of cachexia, arthritis, and autoimmunity resulting from tristetraprolin (TTP) deficiency. Immunity 1996; 4:445-54.
129. Taylor GA, Thompson MJ, Lai WS, Blackshear PJ. Phosphorylation of tristetraprolin, a potential zinc finger transcription factor, by mitogen stimulation in intact cells and by mitogen-activated protein kinase in vitro. J Biol Chem 1995; 270:13341-7.
130. Taylor GA, Thompson MJ, Lai WS, Blackshear PJ. Mitogens stimulate the rapid nuclear to cytosolic translocation of tristetraprolin, a potential zinc-finger transcription factor. Mol Endocrinol 1996; 10:140-6.

131. Tchen CR, Brook M, Saklatvala J, Clark AR. The stability of tristetraprolin mRNA is regulated by mitogen-activated protein kinase p38 and by tristetraprolin itself. *J Biol Chem* 2004; 279:32393-400.
132. te Kronnie G, Stroband H, Schipper H, Samallo J. Zebrafish CTH1, a C3H zinc finger protein, is expressed in ovarian oocytes and embryos. *Dev Genes Evol* 1999; 209:443-6.
133. Thomas PS. Hybridization of denatured RNA and small DNA fragments transferred to nitrocellulose. *Proc Natl Acad Sci USA* 1980; 77:5201-5.
134. Varnum BC, Lim RW, Kujubu DA, et al. Granulocyte-macrophage colony-stimulating factor and tetradecanoyl phorbol acetate induce a distinct, restricted subset of primary response TIS genes in both proliferating and terminally differentiated myeloid cells. *Mol Cell Biol* 1989; 9:3580-3.
135. Varnum BC, Lim RW, Sukhatme VP, Herschman HR. Nucleotide sequence of a cDNA encoding TIS11, a message induced in Swiss 3T3 cells by the tumor promoter tetradecanoyl phorbol acetate. *Oncogene* 1989; 4:119-20.
136. Varnum BC, Ma QF, Chi TH, Fletcher B, and Herschman HR. The TIS11 primary response gene is a member of a gene family that encodes proteins with a highly conserved sequence containing an unusual CysHis repeat. *Mol Cell Biol* 1991; 11:1754-8.
137. Wilusz CJ, Wormington M, Peltz SW. The cap-to-tail guide to mRNA turnover. *Nat Rev Mol Cell Biol* 2001; 2:237-46.
138. Worthington MT, Amann BT, Nathans D, Berg JM. Metal binding Properties and secondary structure of Nup475. *Proc Nat Acad Sci USA* 1996; 93:13754-9.
139. Yamamoto KR, Alberts BM. Steroid receptors: Elements for modulation of eukaryotic transcription. *Annu Rev Biochem* 1976; 45:721-46.
140. Yu H, Stasinopoulos S, Leedman P, Medcalf RL. Inherent instability of plasminogen activator type 2 mRNA is regulated by tristetraprolin. *J Biol Chem* 2003; 278:13912-8.
141. Zhu W, Brauchle MA, Di Padova F, et al. Gene suppression by tristetraprolin and release by the p38 pathway. *Am J Lung Cell Mol Physiol* 2001; 281:L499-L508.