Literaturverzeichnis

Abdalla, S. A., N. Pece-Barbara, et al. (2000). "Analysis of ALK-1 and endoglin in newborns from families with hereditary hemorrhagic telangiectasia type 2." Hum Mol Genet **9**(8): 1227-37.

Akhurst, R. J. and R. Derynck (2001). "TGF-beta signaling in cancer--a double-edged sword." Trends Cell Biol **11**(11): S44-51.

Aoki, H., M. Fujii, et al. (2001). "Synergistic effects of different bone morphogenetic protein type I receptors on alkaline phosphatase induction." J Cell Sci **114**(Pt 8): 1483-9.

Attisano, L., J. Carcamo, et al. (1993). "Identification of human activin and TGF beta type I receptors that form heteromeric kinase complexes with type II receptors." Cell **75**(4): 671-80.

Bassing, C. H., J. M. Yingling, et al. (1994). "A transforming growth factor beta type I receptor that signals to activate gene expression." Science **263**(5143): 87-9.

Basson, C. T., O. Kocher, et al. (1992). "Differential modulation of vascular cell integrin and extracellular matrix expression in vitro by TGF-beta 1 correlates with reciprocal effects on cell migration." J Cell Physiol **153**(1): 118-28.

Berglund, E. O., K. K. Murai, et al. (1999). "Ataxia and abnormal cerebellar microorganization in mice with ablated contactin gene expression." Neuron. **24**(3): 739-50.

Blanco, F. J., J. F. Santibanez, et al. (2005). "Interaction and functional interplay between endoglin and ALK-1, two components of the endothelial transforming growth factor-beta receptor complex." J Cell Physiol **8**: 8.

Bradford, M. M. (1976). "A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein-dye binding." Anal Biochem. **72**: 248-54.

Brown, M. A., Q. Zhao, et al. (2005). "Crystal structure of BMP-9 and functional interactions with pro-region and receptors." J Biol Chem **25**: 25.

Carcamo, J., F. M. Weis, et al. (1994). "Type I receptors specify growth-inhibitory and transcriptional responses to transforming growth factor beta and activin." Mol Cell Biol **14**(6): 3810-21.

Chang, H., D. Huylebroeck, et al. (1999). "Smad5 knockout mice die at mid-gestation due to multiple embryonic and extraembryonic defects." Development **126**(8): 1631-1642.

Cheifetz, S., J. A. Weatherbee, et al. (1987). "The transforming growth factor-[beta] system, a complex pattern of cross-reactive ligands and receptors." Cell **48**(3): 409-415.

Chen, C., K. J. Grzegorzewski, et al. (2003). "An integrated functional genomics screening program reveals a role for BMP-9 in glucose homeostasis." Nat Biotechnol. **21**(3): 294-301. Epub 2003 Feb 24.

Chen, D., M. Zhao, et al. (2004). "Bone morphogenetic proteins." Growth Factors. **22**(4): 233-41.

Chen, R. H. and R. Derynck (1994). "Homomeric interactions between type II transforming growth factor-beta receptors." J Biol Chem **269**(36): 22868-74.

Chen, Y. G. and J. Massague (1999). "Smad1 recognition and activation by the ALK1 group of transforming growth factor-beta family receptors." J Biol Chem **274**(6): 3672-7.

Cui, W., D. J. Fowlis, et al. (1996). "TGFbeta1 inhibits the formation of benign skin tumors, but enhances progression to invasive spindle carcinomas in transgenic mice." Cell **86**(4): 531-42.

De Falco, G., C. Bellan, et al. (2005). "Cdk9 regulates neural differentiation and its expression correlates with the differentiation grade of neuroblastoma and PNET tumors." Cancer Biol Ther. **4**(3): 277-81. Epub 2005 Mar 20.

de Falco, G. and A. Giordano (1998). "CDK9 (PITALRE): a multifunctional cdc2-related kinase." J Cell Physiol **177**(4): 501-6.

De Winter, J. P., C. J. De Vries, et al. (1996). "Truncated activin type II receptors inhibit bioactivity by the formation of heteromeric complexes with activin type I. receptors." Exp Cell Res **224**(2): 323-34.

Dejda, A., P. Sokolowska, et al. (2005). "Neuroprotective potential of three neuropeptides PACAP, VIP and PHI." Pharmacol Rep **57**(3): 307-20.

Derynck, R., R. J. Akhurst, et al. (2001). "TGF-beta signaling in tumor suppression and cancer progression." Nat Genet **29**(2): 117-29.

Dvorakova, M. C. (2005). "Cardioprotective role of the VIP signaling system." Drug News Perspect **18**(6): 387-91.

Eberhard, A., S. Kahlert, et al. (2000). "Heterogeneity of angiogenesis and blood vessel maturation in human tumors: implications for antiangiogenic tumor therapies." Cancer Res **60**(5): 1388-93.

Fernandez-L, A., F. Sanz-Rodriguez, et al. (2005). "Blood outgrowth endothelial cells from Hereditary Haemorrhagic Telangiectasia patients reveal abnormalities compatible with vascular lesions." Cardiovascular Research **68**(2): 235-248.

Fukuda, M. N., T. Sato, et al. (1995). "Trophinin and tastin, a novel cell adhesion molecule complex with potential involvement in embryo implantation." Genes Dev. **9**(10): 1199-1210.

Gajdusek, C. M., Z. Luo, et al. (1993). "Basic fibroblast growth factor and transforming growth factor beta-1: synergistic mediators of angiogenesis in vitro." J Cell Physiol **157**(1): 133-44.

Gerety, S. S., H. U. Wang, et al. (1999). "Symmetrical mutant phenotypes of the receptor EphB4 and its specific transmembrane ligand ephrin-B2 in cardiovascular development." Mol Cell **4**(3): 403-14.

Goumans, M., A. Zwijsen, et al. (1999). "Transforming growth factor-beta signalling in extraembryonic mesoderm is required for yolk sac vasculogenesis in mice." Development **126**(16): 3473-3483.

Goumans, M. J., F. Lebrin, et al. (2003). "Controlling the Angiogenic Switch. A Balance between Two Distinct TGF-b Receptor Signaling Pathways." Trends Cardiovasc Med **13**(7): 301-7.

Goumans, M. J., G. Valdimarsdottir, et al. (2003). "Activin receptor-like kinase (ALK)1 is an antagonistic mediator of lateral TGFbeta/ALK5 signaling." Mol Cell **12**(4): 817-28.

Goumans, M. J., G. Valdimarsdottir, et al. (2002). "Balancing the activation state of the endothelium via two distinct TGF-beta type I receptors." Embo J **21**(7): 1743-53.

Hanahan, D. and J. Folkman (1996). "Patterns and emerging mechanisms of the angiogenic switch during tumorigenesis." Cell **86**(3): 353-64.

Harbour, J. W., R. X. Luo, et al. (1999). "Cdk phosphorylation triggers sequential intramolecular interactions that progressively block Rb functions as cells move through G1." Cell **98**(6): 859-69.

Heldin, C. H., K. Miyazono, et al. (1997). "TGF-beta signalling from cell membrane to nucleus through SMAD proteins." Nature **390**(6659): 465-71.

Henis, Y. I., A. Moustakas, et al. (1994). "The types II and III transforming growth factor-beta receptors form homo-oligomers." J Cell Biol **126**(1): 139-54.

Hollnagel, A., V. Oehlmann, et al. (1999). "Id genes are direct targets of bone morphogenetic protein induction in embryonic stem cells." J Biol Chem **274**(28): 19838-45.

Hutchison, M., K. S. Berman, et al. (1998). "Isolation of TAO1, a protein kinase that activates MEKs in stress-activated protein kinase cascades." J Biol Chem **273**(44): 28625-32.

Iso, T., T. Maeno, et al. (2006). "Dll4-selective Notch signaling induces ephrinB2 gene expression in endothelial cells." Biochemical and Biophysical Research Communications **341**(3): 708-714.

Johnson, D. W., J. N. Berg, et al. (1996). "Mutations in the activin receptor-like kinase 1 gene in hereditary haemorrhagic telangiectasia type 2." Nat Genet **13**(2): 189-95.

Kang, Q., M. H. Sun, et al. (2004). "Characterization of the distinct orthotopic bone-forming activity of 14 BMPs using recombinant adenovirus-mediated gene delivery." Gene Ther **11**(17): 1312-20.

Kempf, T., M. Eden, et al. (2006). "The transforming growth factor-beta superfamily member growth-differentiation factor-15 protects the heart from ischemia/reperfusion injury." Circ Res. **98**(3): 351-60. Epub 2006 Jan 5.

Konig, H. G., D. Kogel, et al. (2005). "TGF-{beta}1 activates two distinct type I receptors in neurons: implications for neuronal NF-{kappa}B signaling." J Cell Biol **168**(7): 1077-86. Epub 2005 Mar 21.

Korchynskyi, O. and P. ten Dijke (2002). "Identification and functional characterization of distinct critically important bone morphogenetic protein-specific response elements in the Id1 promoter." J Biol Chem **277**(7): 4883-91.

Kretzschmar, M. and J. Massague (1998). "SMADs: mediators and regulators of TGF-beta signaling." Curr Opin Genet Dev **8**(1): 103-11.

Kyhse-Andersen, J. (1984). "Electroblotting of multiple gels: a simple apparatus without buffer tank for rapid transfer of proteins from polyacrylamide to nitrocellulose." J Biochem Biophys Methods. **10**(3-4): 203-9.

Laemmli, U. K. (1970). "Cleavage of structural proteins during the assembly of the head of bacteriophage T4." Nature. **227**(5259): 680-5.

Lamouille, S., C. Mallet, et al. (2002). "Activin receptor-like kinase 1 is implicated in the maturation phase of angiogenesis." Blood **100**(13): 4495-501.

Lane, K. B., R. D. Machado, et al. (2000). "Heterozygous germline mutations in BMPR2, encoding a TGF-[beta] receptor, cause familial primary pulmonary hypertension." **26**(1): 81-84.

Larsson, J., M. J. Goumans, et al. (2001). "Abnormal angiogenesis but intact hematopoietic potential in TGF-beta type I receptor-deficient mice." Embo J **20**(7): 1663-73.

Lebrin, F., M. J. Goumans, et al. (2004). "Endoglin promotes endothelial cell proliferation and TGF-beta/ALK1 signal transduction." Embo J **23**: 4018.

Lewis, K. A., P. C. Gray, . , et al. (2000). "Betaglycan binds inhibin and can mediate functional antagonism of activin signalling." Nature **404**(6776): 411-4.

Li, D. Y., L. K. Sorensen, et al. (1999). "Defective angiogenesis in mice lacking endoglin." Science **284**(5419): 1534-7.

Lin, C. Q., J. Singh, et al. (2000). "A role for Id-1 in the aggressive phenotype and steroid hormone response of human breast cancer cells." Cancer Res **60**(5): 1332-40.

Lopez-Casillas, F., J. L. Wrana, et al. (1993). "Betaglycan presents ligand to the TGF[beta] signaling receptor." Cell **73**(7): 1435-1444.

Lopez-Coviella, I., B. Berse, et al. (2000). "Induction and Maintenance of the Neuronal Cholinergic Phenotype in the Central Nervous System by BMP-9

10.1126/science.289.5477.313." Science **289**(5477): 313-316.

Lopez-Rovira, T., E. Chalaux, et al. (2002). "Direct binding of Smad1 and Smad4 to two distinct motifs mediates bone morphogenetic protein-specific transcriptional activation of Id1 gene." J Biol Chem **277**(5): 3176-85.

Luo, K. and H. F. Lodish (1997). "Positive and negative regulation of type II TGF-beta receptor signal transduction by autophosphorylation on multiple serine residues." Embo J **16**(8): 1970-81.

Lux, A., L. Attisano, et al. (1999). "Assignment of transforming growth factor beta1 and beta3 and a third new ligand to the type I receptor ALK-1." J Biol Chem **274**(15): 9984-92.

Lux, A., F. Salway, et al. (2006). "ALK1 signalling analysis identifies angiogenesis related genes and reveals disparity between TGF-b and constitutively active receptor induced gene expression." BMC Cardiovasc Disord. **6**(1): 13.

Macias-Silva, M., P. A. Hoodless, et al. (1998). "Specific activation of Smad1 signaling pathways by the BMP7 type I receptor, ALK2." J Biol Chem **273**(40): 25628-36.

Malassagne, B., F. Taboit, et al. (1998). "A Newly Established Porcine Aortic Endothelial Cell Line: Characterization and Application to the Study of Human-to-Swine Graft Rejection,." Experimental Cell Research **238**(1): 90-100.

Marchuk, D. A. (1998). "Genetic abnormalities in hereditary hemorrhagic telangiectasia." Curr Opin Hematol **5**(5): 332-8.

Massague, J. (1998). "TGF-beta signal transduction." Annu Rev Biochem **67**: 753-91.

Massague, J., S. W. Blain, et al. (2000). "TGFbeta signaling in growth control, cancer, and heritable disorders." Cell **103**(2): 295-309.

Mathur, M., L. Goodwin, et al. (1994). "Interactions of the cytoplasmic domain of the desmosomal cadherin Dsg1 with plakoglobin." J Biol Chem **269**(19): 14075-80.

McAllister, K. A., K. M. Grogg, et al. (1994). "Endoglin, a TGF-beta binding protein of endothelial cells, is the gene for hereditary haemorrhagic telangiectasia type 1." Nat Genet **8**(4): 345-51.

Miller, A. F., S. A. K. Harvey, et al. (2000). "Bone Morphogenetic Protein-9. AN AUTOCRINE/PARACRINE CYTOKINE IN THE LIVER." J. Biol. Chem. **275**(24): 17937-17945.

Miyazawa, K., M. Shinozaki, et al. (2002). "Two major Smad pathways in TGF-beta superfamily signalling." Genes Cells **7**(12): 1191-204.

Miyazono, K. and K. Miyazawa (2002). "Id: a target of BMP signaling." Sci STKE **2002**(151): PE40.

Moolenaar, W. H., O. Kranenburg, et al. (1997). "Lysophosphatidic acid: G-protein signalling and cellular responses." Curr Opin Cell Biol **9**(2): 168-73.

Morgan, T. E., I. Rozovsky, et al. (2000). "Transforming growth factor-beta1 induces transforming growth factor-beta1 and transforming growth factor-beta receptor messenger RNAs and reduces complement C1qB messenger RNA in rat brain microglia." Neuroscience. **101**(2): 313-21.

Moustakas, A., S. Souchelnytskyi, et al. (2001). "Smad regulation in TGF-beta signal transduction." J Cell Sci **114**(Pt 24): 4359-69.

Nakamura, T., K. Takio, et al. (1990). "Activin-binding protein from rat ovary is follistatin." Science **247**(4944): 836-8.

Norton, J. D. (2000). "ID helix-loop-helix proteins in cell growth, differentiation and tumorigenesis." J Cell Sci **113**(Pt 22): 3897-905.

Norton, J. D., R. W. Deed, et al. (1998). "Id helix-loop-helix proteins in cell growth and differentiation." Trends Cell Biol **8**(2): 58-65.

Oh, S. P., T. Seki, et al. (2000). "Activin receptor-like kinase 1 modulates transforming growth factor-beta 1 signaling in the regulation of angiogenesis." Proc Natl Acad Sci U S A **97**(6): 2626-31.

Onichtchouk, D., Y.-G. Chen, et al. (1999). "Silencing of TGF-[beta] signalling by the pseudoreceptor BAMBI." Nature **401**(6752): 480-485.

Ota, T., M. Fujii, et al. (2002). "Targets of transcriptional regulation by two distinct type I receptors for transforming growth factor-beta in human umbilical vein endothelial cells." J Cell Physiol **193**(3): 299-318.

Panchenko, M. P., M. C. Williams, et al. (1996). "Type I receptor serine-threonine kinase preferentially expressed in pulmonary blood vessels." Am J Physiol **270**(4 Pt 1): L547-58.

Pepper, M. S. (1997). "Transforming growth factor-beta: vasculogenesis, angiogenesis, and vessel wall integrity." Cytokine Growth Factor Rev **8**(1): 21-43.

Pepper, M. S., J. D. Vassalli, et al. (1993). "Biphasic effect of transforming growth factor-beta 1 on in vitro angiogenesis." Exp Cell Res **204**(2): 356-63.

Piccolo, S., Y. Sasai, et al. (1996). "Dorsoventral patterning in Xenopus: inhibition of ventral signals by direct binding of chordin to BMP-4." Cell **86**(4): 589-98.

Piossek, C., J. Schneider-Mergener, et al. (1999). "Vascular endothelial growth factor (VEGF) receptor II-derived peptides inhibit VEGF." J Biol Chem **274**(9): 5612-9.

Risau, W. (1997). "Mechanisms of angiogenesis." Nature **386**(6626): 671-4.

Roberts, A. B., M. B. Sporn, et al. (1986). "Transforming growth factor type beta: rapid induction of fibrosis and angiogenesis in vivo and stimulation of collagen formation in vitro." Proc Natl Acad Sci U S A **83**(12): 4167-71.

Roberts, D. (1996). "Regulation of tumor growth and metastasis by thrombospondin-1." FASEB J. **10**(10): 1183-1191.

Roman, B. L., V. N. Pham, et al. (2002). "Disruption of acvrl1 increases endothelial cell number in zebrafish cranial vessels." Development **129**(12): 3009-19.

Roof, D. J., A. Hayes, et al. (1997). "Molecular characterization of abLIM, a novel actin-binding and double zinc finger protein." J Cell Biol. **138**(3): 575-88.

Rotzer, D., M. Roth, et al. (2001). "Type III TGF-beta receptor-independent signalling of TGF-beta2 via TbetaRII-B, an alternatively spliced TGF-beta type II receptor." Embo J. **20**(3): 480-90.

Ruiz, P., V. Brinkmann, et al. (1996). "Targeted mutation of plakoglobin in mice reveals essential functions of desmosomes in the embryonic heart." J Cell Biol **135**(1): 215-25.

Seki, T., K. H. Hong, et al. (2006). "Nonoverlapping expression patterns of ALK1 and ALK5 reveal distinct roles of each receptor in vascular development." Lab Invest. **86**(2): 116-29.

Seki, T., J. Yun, et al. (2003). "Arterial endothelium-specific activin receptor-like kinase 1 expression suggests its role in arterialization and vascular remodeling." Circ Res **93**(7): 682-9.

Shi, Y. and J. Massague (2003). "Mechanisms of TGF-beta signaling from cell membrane to the nucleus." Cell **113**(6): 685-700.

Shim, M. and T. E. Eling (2005). "Protein kinase C-dependent regulation of NAG-1/placental bone morphogenic protein/MIC-1 expression in LNCaP prostate carcinoma cells." J Biol Chem. **280**(19): 18636-42. Epub 2005 Mar 9.

Siemeister, G., M. Schirner, et al. (1999). "Two independent mechanisms essential for tumor angiogenesis: inhibition of human melanoma xenograft growth by interfering with either the vascular endothelial growth factor receptor pathway or the Tie-2 pathway." Cancer Res **59**(13): 3185-91.

Song, J. J., A. J. Celeste, et al. (1995). "Bone morphogenetic protein-9 binds to liver cells and stimulates proliferation." Endocrinology **136**(10): 4293-7.

Sorensen, L. K., B. S. Brooke, et al. (2003). "Loss of distinct arterial and venous boundaries in mice lacking endoglin, a vascular-specific TGFbeta coreceptor." Dev Biol **261**(1): 235-50.

Srinivasan, S., M. A. Hanes, et al. (2003). "A mouse model for hereditary hemorrhagic telangiectasia (HHT) type 2." Hum Mol Genet **12**(5): 473-82.

Stefansson, S. and D. A. Lawrence (1996). "The serpin PAI-1 inhibits cell migration by blocking integrin alpha V beta 3 binding to vitronectin." Nature **383**(6599): 441-3.

Stefansson, S., E. Petitclerc, et al. (2001). "Inhibition of angiogenesis in vivo by plasminogen activator inhibitor-1." J Biol Chem **276**(11): 8135-41.

Strelau, J., A. Schober, et al. (2003). "Growth/differentiation factor-15 (GDF-15), a novel member of the TGF-beta superfamily, promotes survival of lesioned mesencephalic dopaminergic neurons in vitro and in vivo and is induced in neurons following cortical lesioning." J Neural Transm Suppl.(65): 197-203.

Tachibana, K., S. Hirota, et al. (1998). "The chemokine receptor CXCR4 is essential for vascularization of the gastrointestinal tract." Nature **393**(6685): 591-4.

Takahara, K., E. Kessler, et al. (1994). "Type I procollagen COOH-terminal proteinase enhancer protein: identification, primary structure, and chromosomal localization of the cognate human gene (PCOLCE)." J Biol Chem. **269**(42): 26280-5.

Takeichi, M. (1988). "The cadherins: cell-cell adhesion molecules controlling animal morphogenesis." Development **102**(4): 639-55.

ten Dijke, P., H. Ichijo, et al. (1993). "Activin receptor-like kinases: a novel subclass of cell-surface receptors with predicted serine/threonine kinase activity." Oncogene **8**(10): 2879-87.

ten Dijke, P., K. Miyazono, et al. (2000). "Signaling inputs converge on nuclear effectors in TGF-beta signaling." Trends Biochem Sci **25**(2): 64-70.

ten Dijke, P., H. Yamashita, et al. (1994). "Characterization of type I receptors for transforming growth factor-beta and activin." Science **264**(5155): 101-4.

ten Dijke, P., H. Yamashita, et al. (1994). "Identification of type I receptors for osteogenic protein-1 and bone morphogenetic protein-4." J Biol Chem **269**(25): 16985-8.

Trembath, R. C., J. R. Thomson, et al. (2001). "Clinical and molecular genetic features of pulmonary hypertension in patients with hereditary hemorrhagic telangiectasia." N Engl J Med **345**(5): 325-34.

Urness, L. D., L. K. Sorensen, et al. (2000). "Arteriovenous malformations in mice lacking activin receptor-like kinase-1." Nat Genet **26**(3): 328-31.

Valdimarsdottir, G., M.-J. Goumans, et al. (2006). "Smad7 and protein phosphatase 1alpha are critical determinants in the duration of TGF-beta/ALK1 signaling in endothelial cells." BMC Cell Biology **7**(1): 16.

van den Driesche, S., C. L. Mummery, et al. (2003). "Hereditary hemorrhagic telangiectasia: an update on transforming growth factor beta signaling in vasculogenesis and angiogenesis." Cardiovasc Res **58**(1): 20-31.

Van Obberghen-Schilling, E., N. S. Roche, et al. (1988). "Transforming growth factor beta 1 positively regulates its own expression in normal and transformed cells." J Biol Chem. **263**(16): 7741-6.

Volpert, O. V., R. Pili, et al. (2002). "Id1 regulates angiogenesis through transcriptional repression of thrombospondin-1." Cancer Cell **2**(6): 473-83.

Wadhwa, R., S. C. Kaul, et al. (1994). "Cellular mortality to immortalization: mortalin." Cell Struct Funct **19**(1): 1-10.

Welch, D. R., A. Fabra, et al. (1990). "Transforming growth factor beta stimulates mammary adenocarcinoma cell invasion and metastatic potential." Proc Natl Acad Sci U S A **87**(19): 7678-82.

Wieser, R., J. L. Wrana, et al. (1995). "GS domain mutations that constitutively activate T beta R-I, the downstream signaling component in the TGF-beta receptor complex." Embo J **14**(10): 2199-208.

Witthuhn, B. A. and D. A. Bernlohr (2001). "Upregulation of bone morphogenetic protein GDF-3/Vgr-2 expression in adipose tissue of FABP4/aP2 null mice." Cytokine **14**(3): 129-35.

Wozney, J. M. (1989). "Bone morphogenetic proteins." Prog Growth Factor Res **1**(4): 267-80.

Wrana, J. L., L. Attisano, et al. (1992). "TGF beta signals through a heteromeric protein kinase receptor complex." Cell **71**(6): 1003-14.

Wrana, J. L., L. Attisano, et al. (1994). "Mechanism of activation of the TGF-beta receptor." Nature **370**(6488): 341-7.

Wu, X., J. Ma, et al. (2006). "Distinct regulation of gene expression in human endothelial cells by TGF-[beta] and its receptors." Microvascular Research **71**(1): 12-19.

Wu, X., C. E. Robinson, et al. (1995). "Cloning and characterization of the murine activin receptor like kinase-1 (ALK-1) homolog." Biochem Biophys Res Commun **216**(1): 78-83.

Yamashita, H., A. Shimizu, et al. (1997). "Growth/differentiation factor-5 induces angiogenesis in vivo." Exp Cell Res **235**(1): 218-26.

Yang, E. Y. and H. L. Moses (1990). "Transforming growth factor beta 1-induced changes in cell migration, proliferation, and angiogenesis in the chicken chorioallantoic membrane." J Cell Biol **111**(2): 731-41.

Yang, X., L. H. Castilla, et al. (1999). "Angiogenesis defects and mesenchymal apoptosis in mice lacking SMAD5." Development **126**(8): 1571-80.

Ying, S. Y. (1987). "Inhibins and activins: chemical properties and biological activity." Proc Soc Exp Biol Med **186**(3): 253-64.

Zimmerman, L. B., J. M. De Jesus-Escobar, et al. (1996). "The Spemann organizer signal noggin binds and inactivates bone morphogenetic protein 4." Cell **86**(4): 599-606.

Zimmers, T. A., X. Jin, et al. (2006). "Growth differentiation factor-15: induction in liver injury through p53 and tumor necrosis factor-independent mechanisms." J Surg Res. **130**(1): 45-51. Epub 2005 Sep 12.