

9 Literaturverzeichnis

Ahmad S.A., Liu W., Jung Y.D., Fan F., Wilson M., Reinmuth N., Shaheen R.M., Bucana C.D., Ellis L.M. The effects of angiopoietin-1 and -2 on tumor growth and angiogenesis in human colon cancer. *Cancer Res* **61**, 1255-9 (2001).

Ailhaud G., Grimaldi P., Negrel R. Cellular and molecular aspects of adipose tissue development. *Annu Rev Nutr* **12**, 207-33 (1992).

Aird W.C. Vascular bed-specific hemostasis: role of endothelium in sepsis pathogenesis. *Crit Care Med* **29**, S28-34 (2001).

Aird W.C. Endothelial cell dynamics and complexity theory. *Crit Care Med* **30**, S180-5 (2002).

Aird W.C. Endothelial cell heterogeneity. *Crit Care Med* **31**, S221-30 (2003).

Aird W.C., Edelberg J.M., Weiler-Guettler H., Simmons W.W., Smith T.W., Rosenberg R.D. Vascular bed-specific expression of an endothelial cell gene is programmed by the tissue microenvironment. *J Cell Biol* **138**, 1117-24 (1997).

Alimov G.A., Mironov A.A., Banin V.V., Schippel K., Welt K., Mironov V.A. Karaganov J.L. [Vascular endothelium--a review. I. General morphology of the vascular endothelium]. *Gegenbaurs Morphol Jahrb* **135**, 887-916 (1989).

Alison M.R., Poulson R., Forbes S., Wright N.A. An introduction to stem cells. *J Pathol* **197**, 419-23 (2002).

Allen B.L., Filla M.S., Rapraeger A.C. Role of heparan sulfate as a tissue-specific regulator of FGF-4 and FGF receptor recognition. *J Cell Biol* **155**, 845-58 (2001).

Alvarez-Silva M., Belo-Diabangouaya P., Salaun J., Dieterlen-Lievre F. Mouse placenta is a major hematopoietic organ. *Development* **130**, 5437-44 (2003).

Amann A., Rieder J., Fleischer M., Niedermuller P., Hoffmann G., Amberger A., Marth C., Nigrovic V., Puhlinger F. The influence of atracurium, cisatracurium, and mivacurium on the proliferation of two human cell lines in vitro. *Anesth Analg* **93**, 690-6 (2001).

Amsterdam A., Rotmensch S. Structure-function relationships during granulosa cell differentiation. *Endocr Rev* **8**, 309-37 (1987).

Andries L.J., Brutsaert D.L., Sys S.U. Nonuniformity of endothelial constitutive nitric oxide synthase distribution in cardiac endothelium. *Circ Res* **82**, 195-203 (1998).

- Antczak M., Van Blerkom J.** The vascular character of ovarian follicular granulosa cells: phenotypic and functional evidence for an endothelial-like cell population. *Hum Reprod* **15**, 2306-18 (2000).
- Arciniegas E., Becerra A., De Sanctis J.B., Graterol A., Ramirez R.** CD40 and CD40L expression in the chicken embryo aorta: possible role in the endothelial-mesenchymal transdifferentiation process. *Anat Rec A Discov Mol Cell Evol Biol* **274**, 942-51 (2003).
- Asahara T., Kalka C., Isner J.M.** Stem cell therapy and gene transfer for regeneration. *Gene Ther* **7**, 451-7 (2000).
- Asahara T., Kawamoto A.** Endothelial progenitor cells for postnatal vasculogenesis. *Am J Physiol Cell Physiol* **287**, C572-9 (2004).
- Asahara T., Masuda H., Takahashi T., Kalka C., Pastore C., Silver M., Kearne M., Magner M., Isner J.M.** Bone marrow origin of endothelial progenitor cells responsible for postnatal vasculogenesis in physiological and pathological neovascularization. *Circ Res* **85**, 221-8 (1999a).
- Asahara T., Murohara T., Sullivan A., Silver M., van der Zee R., Li T., Witzenbichler B., Schatteman G., Isner J.M.** Isolation of putative progenitor endothelial cells for angiogenesis. *Science* **275**, 964-7 (1997).
- Asahara T., Takahashi T., Masuda H., Kalka C., Chen D., Iwaguro H., Inai Y., Silver M., Isner J.M.** VEGF contributes to postnatal neovascularization by mobilizing bone marrow-derived endothelial progenitor cells. *Embo J* **18**, 3964-72 (1999b).
- Auerbach R., Alby L., Morrissey L.W., Tu M., Joseph J.** Expression of organ-specific antigens on capillary endothelial cells. *Microvasc Res* **29**, 401-11 (1985).
- Auerbach R., Lewis R., Shinnars B., Kubai L., Akhtar N.** Angiogenesis assays: a critical overview. *Clin Chem* **49**, 32-40 (2003).
- Augustin H.G.** Vascular morphogenesis in the ovary. *Baillieres Best Pract Res Clin Obstet Gynaecol* **14**, 867-82 (2000).
- Augustin H.G., Braun K., Telemenakis I., Modlich U., Kuhn W.** Ovarian angiogenesis. Phenotypic characterization of endothelial cells in a physiological model of blood vessel growth and regression. *Am J Pathol* **147**, 339-51 (1995).
- Augustin-Voss H.G., Johnson R.C., Pauli B.U.** Modulation of endothelial cell surface glycoconjugate expression by organ-derived biomatrices. *Exp Cell Res* **192**, 346-51 (1991).
- Augustin-Voss H.G., Smith C.A., Lewis R.M.** Phenotypic characterization of normal and neoplastic canine endothelial cells by lectin histochemistry. *Vet Pathol* **27**, 103-9 (1990).
- Ausprunk D.H., Folkman J.** Migration and proliferation of endothelial cells in preformed and newly formed blood vessels during tumor angiogenesis. *Microvasc Res* **14**, 53-65 (1977).
- Bahlmann F.H., De Groot K., Spandau J.M., Landry A.L., Hertel B., Duckert T., Boehm S.M., Menne J., Haller H., Fliser D.** Erythropoietin regulates endothelial progenitor cells. *Blood* **103**, 921-6 (2004).
- Bahramsoltani M.** Quantifizierung der Angiogenese und Antiangiogenese in vitro. *Dissertation*. Fachbereich Veterinärmedizin. Freie Universität Berlin (2003).

- Bahramsoltani M., Plendl J.** [A new in vitro model to quantify angiogenesis]. *Altex* **21**, 227-44 (2004).
- Bailey A.S., Fleming W.H.** Converging roads: evidence for an adult hemangioblast. *Exp Hematol* **31**, 987-93 (2003).
- Bailey A.S., Jiang S., Afentoulis M., Baumann C.I., Schroeder D.A., Olson S.B., Wong M.H., Fleming W.H.** Transplanted adult hematopoietic stem cells differentiate into functional endothelial cells. *Blood* **103**, 13-9 (2004).
- Baldwin H.S.** Early embryonic vascular development. *Cardiovasc Res* **31 Spec No**, E34-45 (1996).
- Baron M.H.** Embryonic origins of mammalian hematopoiesis. *Exp Hematol* **31**, 1160-9 (2003).
- Bartel H., Lametschwandtner A.** Intussusceptive microvascular growth in the lung of larval *Xenopus laevis* Daudin: a light microscope, transmission electron microscope and SEM study of microvascular corrosion casts. *Anat Embryol (Berl)* **202**, 55-65 (2000).
- Bastaki M., Nelli E.E., Dell'Era P., Rusnati M., Molinari-Tosatti M.P., Parolini S., Auerbach R., Ruco L.P., Possati L., Presta M.** Basic fibroblast growth factor-induced angiogenic phenotype in mouse endothelium. A study of aortic and microvascular endothelial cell lines. *Arterioscler Thromb Vasc Biol* **17**, 454-64 (1997).
- Bauer P., Lush C.W., Kvietys P.R., Russell J.M., Granger D.N.** Role of endotoxin in the expression of endothelial selectins after cecal ligation and perforation. *Am J Physiol Regul Integr Comp Physiol* **278**, R1140-7 (2000).
- Bautz F., Rafii S., Kanz L., Mohle R.** Expression and secretion of vascular endothelial growth factor-A by cytokine-stimulated hematopoietic progenitor cells. Possible role in the hematopoietic microenvironment. *Exp Hematol* **28**, 700-6 (2000).
- Bayless K.J., Davis G.E.** The Cdc42 and Rac1 GTPases are required for capillary lumen formation in three-dimensional extracellular matrices. *J Cell Sci* **115**, 1123-36 (2002).
- Bayless K.J., Salazar R., Davis G.E.** RGD-dependent vacuolation and lumen formation observed during endothelial cell morphogenesis in three-dimensional fibrin matrices involves the $\alpha(v)\beta(3)$ and $\alpha(5)\beta(1)$ integrins. *Am J Pathol* **156**, 1673-83 (2000).
- Belloni P.N., Nicolson G.L.** Differential expression of cell surface glycoproteins on various organ-derived microvascular endothelia and endothelial cell cultures. *J Cell Physiol* **136**, 398-410 (1988).
- Beltrami A.P., Barlucchi L., Torella D., Baker M., Limana F., Chimenti S., Kasahara H., Rota M., Musso E., Urbanek K., Leri A., Kajstura J., Nadal-Ginard B., Anversa P.** Adult cardiac stem cells are multipotent and support myocardial regeneration. *Cell* **114**, 763-76 (2003).
- Benjamin L.E., Golijanin D., Itin A., Pode D., Keshet E.** Selective ablation of immature blood vessels in established human tumors follows vascular endothelial growth factor withdrawal. *J Clin Invest* **103**, 159-65 (1999).

Benjamin L.E., Hemo I., Keshet E. A plasticity window for blood vessel remodelling is defined by pericyte coverage of the preformed endothelial network and is regulated by PDGF-B and VEGF. *Development* **125**, 1591-8 (1998).

Berisha B., Schams D., Kosmann M., Amselgruber W., Einspanier R. Expression and tissue concentration of vascular endothelial growth factor, its receptors, and localization in the bovine corpus luteum during estrous cycle and pregnancy. *Biol Reprod* **63**, 1106-14 (2000).

Besmer P., Manova K., Duttlinger R., Huang E.J., Packer A., Gyssler C., Bachvarova R.F. The kit-ligand (steel factor) and its receptor c-kit/W: pleiotropic roles in gametogenesis and melanogenesis. *Dev Suppl*, 125-37 (1993).

Betsholtz C., Lindblom P., Gerhardt H. Role of pericytes in vascular morphogenesis. *Exs*, 115-25 (2005).

Bishop A.E., Buttery L.D., Polak J.M. Embryonic stem cells. *J Pathol* **197**, 424-9. (2002).

Bishop E.T., Bell G.T., Bloor S., Broom I.J., Hendry N.F., Wheatley D.N. An in vitro model of angiogenesis: basic features. *Angiogenesis* **3**, 335-44 (1999).

Bisplinghoff P., Hünigen H., Plendl J. Dynamics of vascular regression in the corpus luteum. Jahrestagung der Gesellschaft für Mikrozirkulation und vaskuläre Biologie e.V., München (2003)

Bjornson C.R., Rietze R.L., Reynolds B.A., Magli M.C., Vescovi A.L. Turning brain into blood: a hematopoietic fate adopted by adult neural stem cells in vivo. *Science* **283**, 534-7. (1999a).

Blau H.M., Brazelton T.R., Weimann J.M. The evolving concept of a stem cell: entity or function? *Cell* **105**, 829-41. (2001).

Bloch W., Forsberg E., Lentini S., Brakebusch C., Martin K., Krell H.W., Weidle U.H., Addicks K., Fassler R. Beta 1 integrin is essential for teratoma growth and angiogenesis. *J Cell Biol* **139**, 265-78 (1997).

Bompais H., Chagraoui J., Canon X., Crisan M., Liu X.H., Anjo A., Tolla-Le Port C., Leboeuf M., Charbord P., Bikfalvi A., Uzan G. Human endothelial cells derived from circulating progenitors display specific functional properties compared with mature vessel wall endothelial cells. *Blood* **103**, 2577-84 (2004).

Brachvogel B., Moch H., Pausch F., Schlotzer-Schrehardt U., Hofmann C., Hallmann R., von der Mark K., Winkler T., Poschl E. Perivascular cells expressing annexin A5 define a novel mesenchymal stem cell-like population with the capacity to differentiate into multiple mesenchymal lineages. *Development* **132**, 2657-68 (2005).

Brakebusch C., Hirsch E., Potocnik A., Fassler R. Genetic analysis of beta1 integrin function: confirmed, new and revised roles for a crucial family of cell adhesion molecules. *J Cell Sci* **110 (Pt 23)**, 2895-904 (1997).

Brankin V., Hunter M.G., Horan T.L., Armstrong D.G., Webb R. The expression patterns of mRNA-encoding stem cell factor, internal stem cell factor and c-kit in the prepubertal and adult porcine ovary. *J Anat* **205**, 393-403 (2004).

- Brooks P.C., Clark R.A., Cheresh D.A.** Requirement of vascular integrin alpha v beta 3 for angiogenesis. *Science* **264**, 569-71 (1994).
- Brooks P.C., Stromblad S., Sanders L.C., von Schalscha T.L., Aimes R.T., Stetler-Stevenson W.G., Quigley J.P., Cheresh D.A.** Localization of matrix metalloproteinase MMP-2 to the surface of invasive cells by interaction with integrin alpha v beta 3. *Cell* **85**, 683-93 (1996).
- Bruns R.R., Palade G.E.** Studies on blood capillaries. I. General organization of blood capillaries in muscle. *J Cell Biol* **37**, 244-76 (1968).
- Budde A.** Immunhistochemischer Nachweis der Rezeptoren für Wachstumshormon und Oxytocin im bovinen Ovar. *Dissertation*. Tierärztliche Fakultät der Ludwig-Maximilians-Universität München (1999).
- Bukovsky A., Caudle M.R., Svetlikova M., Upadhyaya N.B.** Origin of germ cells and formation of new primary follicles in adult human ovaries. *Reprod Biol Endocrinol* **2**, 20 (2004).
- Bukovsky A., Caudle M.R., Svetlikova M., Wimalasena J., Ayala M.E., Dominguez R.** Oogenesis in adult mammals, including humans: a review. *Endocrine* **26**, 301-16 (2005).
- Burns K.H., Owens G.E., Fernandez J.M., Nilson J.H., Matzuk M.M.** Characterization of integrin expression in the mouse ovary. *Biol Reprod* **67**, 743-51 (2002).
- Buss H., Schneider J., Hollweg H.G.** The endothelial surface of large veins of rabbit: scanning electron microscopic observations. *Pathol Res Pract* **165**, 392-410 (1979).
- Butcher E.C., Picker L.J.** Lymphocyte homing and homeostasis. *Science* **272**, 60-6 (1996).
- Byrd N., Becker S., Maye P., Narasimhaiah R., St-Jacques B., Zhang X., McMahon J., McMahon A., Grabel L.** Hedgehog is required for murine yolk sac angiogenesis. *Development* **129**, 361-72 (2002).
- Calabrese G.C., Wainstok R.** Tissue expression of platelet endothelial cell adhesion molecule-1 at pre and postnatal murine development. *Biocell* **28**, 251-8 (2004).
- Cao G., O'Brien C.D., Zhou Z., Sanders S.M., Greenbaum J.N., Makrigiannakis A., DeLisser H.M.** Involvement of human PECAM-1 in angiogenesis and in vitro endothelial cell migration. *Am J Physiol Cell Physiol* **282**, C1181-90 (2002).
- Caplice N.M., Doyle B.** Vascular progenitor cells: origin and mechanisms of mobilization, differentiation, integration, and vasculogenesis. *Stem Cells Dev* **14**, 122-39 (2005).
- Caprioli A., Minko K., Drevon C., Eichmann A., Dieterlen-Lievre F., Jaffredo T.** Hemangioblast commitment in the avian allantois: cellular and molecular aspects. *Dev Biol* **238**, 64-78 (2001).
- Carmeliet P.** Mechanisms of angiogenesis and arteriogenesis. *Nat Med* **6**, 389-95 (2000).
- Carmeliet P.** The development of blood vessels: cellular and molecular mechanisms. In: *Assembly of the vasculature and its regulation*. 1. Auflage. Birkhäuser Verlag, Boston, S. 1-20 (2001).
- Carmeliet P.** Angiogenesis in health and disease. *Nat Med* **9**, 653-60 (2003).

Carmeliet P., Ferreira V., Breier G., Pollefeyt S., Kieckens L., Gertsenstein M., Fahrig M., Vandenhoek A., Harpal K., Eberhardt C., Declercq C., Pawling J., Moons L., Collen D., Risau W., Nagy A. Abnormal blood vessel development and lethality in embryos lacking a single VEGF allele. *Nature* **380**, 435-9 (1996).

Carson-Walter E.B., Watkins D.N., Nanda A., Vogelstein B., Kinzler K.W., St Croix B. Cell surface tumor endothelial markers are conserved in mice and humans. *Cancer Res* **61**, 6649-55 (2001).

Cavender J.L., Murdoch W.J. Morphological studies of the microcirculatory system of periovulatory ovine follicles. *Biol Reprod* **39**, 989-97 (1988).

Cenni E., Granchi D., Verri E., Remiddi G., Cavedagna D., Di Leo A. Evaluation of endothelial cell integrins after invitro contact with polyethylene terephthalate. *J Mater Sci Mater Med* **12**, 345-9 (2001).

Chabot B., Stephenson D.A., Chapman V.M., Besmer P., Bernstein A. The proto-oncogene c-kit encoding a transmembrane tyrosine kinase receptor maps to the mouse W locus. *Nature* **335**, 88-9 (1988).

Choi K. The hemangioblast: a common progenitor of hematopoietic and endothelial cells. *J Hematother Stem Cell Res* **11**, 91-101 (2002).

Choi K., Kennedy M., Kazarov A., Papadimitriou J.C., Keller G. A common precursor for hematopoietic and endothelial cells. *Development* **125**, 725-32 (1998).

Cines D.B., Pollak E.S., Buck C.A., Loscalzo J., Zimmerman G.A., McEver R.P., Pober J.S., Wick T.M., Konkle B.A., Schwartz B.S., Barnathan E.S., McCrae K.R., Hug B.A., Schmidt A.M., Stern D.M. Endothelial cells in physiology and in the pathophysiology of vascular disorders. *Blood* **91**, 3527-61 (1998).

Clark R.A., Tonnesen M.G., Gailit J., Cheresh D.A. Transient functional expression of alpha5 beta3 on vascular cells during wound repair. *Am J Pathol* **148**, 1407-21 (1996).

Clarke D.L., Johansson C.B., Wilbertz J., Veress B., Nilsson E., Karlstrom H., Lendahl, U. Frisen J. Generalized potential of adult neural stem cells. *Science* **288**, 1660-3 (2000).

Cogle C.R., Wainman D.A., Jorgensen M.L., Guthrie S.M., Mames R.N., Scott E.W. Adult human hematopoietic cells provide functional hemangioblast activity. *Blood* **103**, 133-5 (2004).

Condorelli G., Borello U., De Angelis L., Latronico M., Sirabella D., Coletta M., Galli R., Balconi G., Follenzi A., Frati G., Cusella De Angelis M.G., Gioglio L., Amuchastegui S., Adorini L., Naldini L., Vescovi A., Dejana E., Cossu G. Cardiomyocytes induce endothelial cells to trans-differentiate into cardiac muscle: implications for myocardium regeneration. *Proc Natl Acad Sci U S A* **98**, 10733-8 (2001).

Cooper M.E., Bonnet F., Oldfield M., Jandeleit-Dahm K. Mechanisms of diabetic vasculopathy: an overview. *Am J Hypertens* **14**, 475-86 (2001).

Cosentino F. Heterogeneity of endothelial function. *Minerva Cardioangiol* **47**, 376-7 (1999).

Cox C.M., Poole T.J. Angioblast differentiation is influenced by the local environment: FGF-2 induces angioblasts and patterns vessel formation in the quail embryo. *Dev Dyn* **218**, 371-82 (2000).

- Crivellato E., Ribatti D.** Involvement of mast cells in angiogenesis and chronic inflammation. *Curr Drug Targets Inflamm Allergy* **4**, 9-11 (2005).
- Cross M.J., Dixelius J., Matsumoto T., Claesson-Welsh L.** VEGF-receptor signal transduction. *Trends Biochem Sci* **28**, 488-94 (2003).
- Dai G., Kaazempur-Mofrad M.R., Natarajan S., Zhang Y., Vaughn S., Blackman B.R., Kamm R.D., Garcia-Cardena G., Gimbrone M.A., Jr.** Distinct endothelial phenotypes evoked by arterial waveforms derived from atherosclerosis-susceptible and -resistant regions of human vasculature. *Proc Natl Acad Sci U S A* **101**, 14871-6 (2004).
- Davis G.E., Black S.M., Bayless K.J.** Capillary morphogenesis during human endothelial cell invasion of three-dimensional collagen matrices. *In Vitro Cell Dev Biol Anim* **36**, 513-9 (2000).
- Davis G.E., Camarillo C.W.** An alpha 2 beta 1 integrin-dependent pinocytic mechanism involving intracellular vacuole formation and coalescence regulates capillary lumen and tube formation in three-dimensional collagen matrix. *Exp Cell Res* **224**, 39-51 (1996).
- Davis J.S., Rueda B.R., Spanel-Borowski K.** Microvascular endothelial cells of the corpus luteum. *Reprod Biol Endocrinol* **1**, 89 (2003).
- Dejana E.** Endothelial adherens junctions: implications in the control of vascular permeability and angiogenesis. *J Clin Invest* **98**, 1949-53 (1996).
- Dejana E., Corada M., Lampugnani M.G.** Endothelial cell-to-cell junctions. *Faseb J* **9**, 910-8 (1995).
- deMello D.E., Reid L.M.** Embryonic and early fetal development of human lung vasculature and its functional implications. *Pediatr Dev Pathol* **3**, 439-49 (2000).
- deMello D.E., Sawyer D., Galvin N., Reid L.M.** Early fetal development of lung vasculature. *Am J Respir Cell Mol Biol* **16**, 568-81 (1997).
- Dewey C.F., Jr., Bussolari S.R., Gimbrone M.A., Jr., Davies P.F.** The dynamic response of vascular endothelial cells to fluid shear stress. *J Biomech Eng* **103**, 177-85 (1981).
- Di Stefano R., Santoni T., Barsotti M.C., Armani C., Chifenti B., Guida C., Vanacore R., Locci M.T., Mariani M., Balbarini A.** Different growth conditions for peripheral blood endothelial progenitors. *Cardiovasc Radiat Med* **3**, 172-5 (2002).
- Djonov V.G., Galli A.B., Burri P.H.** Intussusceptive arborization contributes to vascular tree formation in the chick chorio-allantoic membrane. *Anat Embryol (Berl)* **202**, 347-57 (2000).
- Doherty M.J., Canfield A.E.** Gene expression during vascular pericyte differentiation. *Crit Rev Eukaryot Gene Expr* **9**, 1-17 (1999).
- Drake C.J.** Embryonic and adult vasculogenesis. *Birth Defects Res C Embryo Today* **69**, 73-82 (2003).
- Drake C.J., Davis L.A., Little C.D.** Antibodies to beta 1-integrins cause alterations of aortic vasculogenesis, in vivo. *Dev Dyn* **193**, 83-91 (1992).

Drake C.J., Fleming P.A. Vasculogenesis in the day 6.5 to 9.5 mouse embryo. *Blood* **95**, 1671-9 (2000).

Drake C.J., Hungerford J.E., Little C.D. Morphogenesis of the first blood vessels. *Ann N Y Acad Sci* **857**, 155-79 (1998).

Drake C.J., Little C.D. Exogenous vascular endothelial growth factor induces malformed and hyperfused vessels during embryonic neovascularization. *Proc Natl Acad Sci U S A* **92**, 7657-61 (1995).

Drake T.A., Cheng J., Chang A., Taylor F.B., Jr. Expression of tissue factor, thrombomodulin, and E-selectin in baboons with lethal *Escherichia coli* sepsis. *Am J Pathol* **142**, 1458-70 (1993).

Dumont D.J., Yamaguchi T.P., Conlon R.A., Rossant J., Breitman M.L. tek, a novel tyrosine kinase gene located on mouse chromosome 4, is expressed in endothelial cells and their presumptive precursors. *Oncogene* **7**, 1471-80 (1992).

Eichmann A., Pardanaud L., Yuan L., Moyon D. Vasculogenesis and the search for the hemangioblast. *J Hematother Stem Cell Res* **11**, 207-14 (2002).

Eklom P., Vestweber D., Kemler R. Cell-matrix interactions and cell adhesion during development. *Annu Rev Cell Biol* **2**, 27-47 (1986).

Ema M., Faloon P., Zhang W.J., Hirashima M., Reid T., Stanford W.L., Orkin S., Choi K., Rossant J. Combinatorial effects of Flk1 and Tal1 on vascular and hematopoietic development in the mouse. *Genes Dev* **17**, 380-93 (2003).

Ema M., Rossant J. Cell fate decisions in early blood vessel formation. *Trends Cardiovasc Med* **13**, 254-9 (2003).

Enaida H., Ito T., Oshima Y., Sakamoto T., Yago K., Kato K., Kochi H. Effect of growth factors on expression of integrin subtypes in microvascular endothelial cells isolated from bovine retinas. *Fukushima J Med Sci* **44**, 43-52 (1998).

Erber W.N. Human leucocyte differentiation antigens: review of the CD nomenclature. *Pathology* **22**, 61-9. (1990).

Espey L.L. Ovulation as an inflammatory reaction--a hypothesis. *Biol Reprod* **22**, 73-106 (1980).

Faloon P., Arentson E., Kazarov A., Deng C.X., Porcher C., Orkin S., Choi K. Basic fibroblast growth factor positively regulates hematopoietic development. *Development* **127**, 1931-41 (2000).

Fatehi M.I., Gerhart D.Z., Myers T.G., Drewes L.R. Characterization of the blood-brain barrier: glycoconjugate receptors of 14 lectins in canine brain, cultured endothelial cells, and blotted membrane proteins. *Brain Res* **415**, 30-9 (1987).

Feinberg R.N., Shumko J.Z., Steinfeld R., Sweetman L. Endothelial heterogeneity in the chick wing bud: a morphometric study. *Anat Embryol (Berl)* **184**, 47-53 (1991).

Feoktistov I., Goldstein A.E., Ryzhov S., Zeng D., Belardinelli L., Voyno-Yasenetskaya T., Biaggioni I. Differential expression of adenosine receptors in human endothelial cells: role of A2B receptors in angiogenic factor regulation. *Circ Res* **90**, 531-8 (2002).

- Fernandez Pujol B., Lucibello F.C., Gehling U.M., Lindemann K., Weidner N., Zuzarte M.L., Adamkiewicz J., Elsasser H.P., Muller R., Havemann K.** Endothelial-like cells derived from human CD14 positive monocytes. *Differentiation* **65**, 287-300 (2000).
- Ferrara N.** Role of vascular endothelial growth factor in the regulation of angiogenesis. *Kidney Int* **56**, 794-814 (1999).
- Ferrara N., Carver-Moore K., Chen H., Dowd M., Lu L., O'Shea K.S., Powell-Braxton L., Hillan K.J., Moore M.W.** Heterozygous embryonic lethality induced by targeted inactivation of the VEGF gene. *Nature* **380**, 439-42 (1996).
- Ferrara N., Chen H., Davis-Smyth T., Gerber H.P., Nguyen T.N., Peers D., Chisholm V., Hillan K.J., Schwall R.H.** Vascular endothelial growth factor is essential for corpus luteum angiogenesis. *Nat Med* **4**, 336-40 (1998).
- Ferrara N., Gerber H.P.** The role of vascular endothelial growth factor in angiogenesis. *Acta Haematol* **106**, 148-56 (2001).
- Ferrara N., Gerber H.P., LeCouter J.** The biology of VEGF and its receptors. *Nat Med* **9**, 669-76 (2003).
- Ferrara N., LeCouter J., Lin R., Peale F.** EG-VEGF and Bv8: a novel family of tissue-restricted angiogenic factors. *Biochim Biophys Acta* **1654**, 69-78 (2004).
- Fierlbeck W., Liu A., Coyle R., Ballermann B.J.** Endothelial cell apoptosis during glomerular capillary lumen formation in vivo. *J Am Soc Nephrol* **14**, 1349-54 (2003).
- Flaherty J.T., Pierce J.E., Ferrans V.J., Patel D.J., Tucker W.K., Fry D.L.** Endothelial nuclear patterns in the canine arterial tree with particular reference to hemodynamic events. *Circ Res* **30**, 23-33 (1972).
- Flamme I., Breier G.** Role of vascular endothelial growth factors and their receptors during embryonic vascular development. In: *Assembly of the vasculature and its regulation*. 1. Auflage. Birkhäuser Verlag, Boston, S. 21-54 (2001).
- Flamme I., Frolich T., Risau W.** Molecular mechanisms of vasculogenesis and embryonic angiogenesis. *J Cell Physiol* **173**, 206-10 (1997).
- Folkman J.** Tumor angiogenesis: therapeutic implications. *N Engl J Med* **285**, 1182-6 (1971).
- Folkman J.** Angiogenesis. In: *Biology of endothelial cells*. 1. Auflage. Kluwer Academic Publishers, Boston, (1984).
- Folkman J.** Angiogenesis in cancer, vascular, rheumatoid and other disease. *Nat Med* **1**, 27-31 (1995).
- Folkman J.** Incipient angiogenesis. *J Natl Cancer Inst* **92**, 94-5. (2000).
- Folkman J. Haudenschild C.** Angiogenesis in vitro. *Nature* **288**, 551-6 (1980).
- Folkman J. Shing Y.** Angiogenesis. *J Biol Chem* **267**, 10931-4 (1992).
- Fong G.H., Rossant J., Gertsenstein M. Breitman M.L.** Role of the Flt-1 receptor tyrosine kinase in regulating the assembly of vascular endothelium. *Nature* **376**, 66-70 (1995).

- Fong G.H., Zhang L., Bryce D.M., Peng J.** Increased hemangioblast commitment, not vascular disorganization, is the primary defect in flt-1 knock-out mice. *Development* **126**, 3015-25 (1999).
- Forsman A.D., McCormack J.T.** Microcorrosion casts of hamster luteal and follicular vasculature throughout the estrous cycle. *Anat Rec* **233**, 515-20 (1992).
- Fraser H.M., Wulff C.** Angiogenesis in the corpus luteum. *Reprod Biol Endocrinol* **1**, 88 (2003).
- Frid M.G., Kale V.A., Stenmark K.R.** Mature vascular endothelium can give rise to smooth muscle cells via endothelial-mesenchymal transdifferentiation: in vitro analysis. *Circ Res* **90**, 1189-96 (2002).
- Friesel R.E., Maciag T.** Molecular mechanisms of angiogenesis: fibroblast growth factor signal transduction. *Faseb J* **9**, 919-25 (1995).
- Fuchs-Schönleber T.** Etablierung eines in vitro-Modells des bovinen Corpus luteum. *Dissertation*. Tierärztliche Fakultät der Ludwig-Maximilians-Universität München (1999).
- Fujiwara H., Kataoka N., Honda T., Ueda M., Yamada S., Nakamura K., Suginami H., Mori T., Maeda M.** Physiological roles of integrin alpha 6 beta 1 in ovarian functions. *Horm Res* **50 Suppl 2**, 25-9 (1998).
- Furcht L.T.** Critical factors controlling angiogenesis: cell products, cell matrix, and growth factors. *Lab Invest* **55**, 505-9 (1986).
- Furusawa T., Ohkoshi K., Honda C., Takahashi S., Tokunaga T.** Embryonic stem cells expressing both platelet endothelial cell adhesion molecule-1 and stage-specific embryonic antigen-1 differentiate predominantly into epiblast cells in a chimeric embryo. *Biol Reprod* **70**, 1452-7 (2004).
- Gamble J., Meyer G., Noack L., Furze J., Matthias L., Kovach N., Harlant J., Vadas M.** B1 integrin activation inhibits in vitro tube formation: effects on cell migration, vacuole coalescence and lumen formation. *Endothelium* **7**, 23-34 (1999).
- Gamble J.R., Matthias L.J., Meyer G., Kaur P., Russ G., Faull R., Berndt M.C., Vadas M.A.** Regulation of in vitro capillary tube formation by anti-integrin antibodies. *J Cell Biol* **121**, 931-43 (1993).
- Garfinkel A., Tintut Y., Petrusek D., Bostrom K., Demer L.L.** Pattern formation by vascular mesenchymal cells. *Proc Natl Acad Sci U S A* **101**, 9247-50 (2004).
- Gebb S.A., Shannon J.M.** Tissue interactions mediate early events in pulmonary vasculogenesis. *Dev Dyn* **217**, 159-69 (2000).
- Gehling U.M., Ergun S., Schumacher U., Wagener C., Pantel K., Otte M., Schuch G., Schafhausen P., Mende T., Kilic N., Kluge K., Schafer B., Hossfeld D.K., Fiedler W.** In vitro differentiation of endothelial cells from AC133-positive progenitor cells. *Blood* **95**, 3106-12 (2000).
- Gentry P.C., Smith G.W., Leighr D.R., Bao B., Smith M.F.** Ontogeny of stem cell factor receptor (c-kit) messenger ribonucleic acid in the ovine corpus luteum. *Biol Reprod* **59**, 983-90 (1998).

- Gerber H.P., McMurtrey A., Kowalski J., Yan M., Keyt B.A., Dixit V., Ferrara N.** Vascular endothelial growth factor regulates endothelial cell survival through the phosphatidylinositol 3'-kinase/Akt signal transduction pathway. Requirement for Flk-1/KDR activation. *J Biol Chem* **273**, 30336-43 (1998).
- Gering M., Yamada Y., Rabbitts T.H., Patient R.K.** Lmo2 and Scl/Tal1 convert non-axial mesoderm into haemangioblasts which differentiate into endothelial cells in the absence of Gata1. *Development* **130**, 6187-99 (2003).
- Ghandour S., Langley K., Gombos G., Hirn M., Hirsch M.R., Goridis C.** A surface marker for murine vascular endothelial cells defined by monoclonal antibody. *J Histochem Cytochem* **30**, 165-70 (1982).
- Gilad A.A., Israely T., Dafni H., Meir G., Cohen B., Neeman M.** Functional and molecular mapping of uncoupling between vascular permeability and loss of vascular maturation in ovarian carcinoma xenografts: The role of stroma cells in tumor angiogenesis. *Int J Cancer* (2005).
- Gille H., Kowalski J., Li B., LeCouter J., Moffat B., Zioncheck T.F., Pelletier N., Ferrara N.** Analysis of biological effects and signaling properties of Flt-1 (VEGFR-1) and KDR (VEGFR-2). A reassessment using novel receptor-specific vascular endothelial growth factor mutants. *J Biol Chem* **276**, 3222-30. Epub 2000 Oct 31. (2001).
- Goede V., Schmidt T., Kimmina S., Kozian D., Augustin H.G.** Analysis of blood vessel maturation processes during cyclic ovarian angiogenesis. *Lab Invest* **78**, 1385-94 (1998).
- Gomez R.A., Sequeira Lopez M.L.** Vascular development of the kidney. In: *Assembly of the vasculature and its regulation*. 1. Auflage. Birkhäuser Verlag, Boston, S. 193-210 (2001).
- Goodell M.A., Brose K., Paradis G., Conner A.S., Mulligan R.C.** Isolation and functional properties of murine hematopoietic stem cells that are replicating in vivo. *J Exp Med* **183**, 1797-806 (1996).
- Goodell M.A., Rosenzweig M., Kim H., Marks D.F., DeMaria M., Paradis G., Grupp S.A., Sieff C.A., Mulligan R.C., Johnson R.P.** Dye efflux studies suggest that hematopoietic stem cells expressing low or undetectable levels of CD34 antigen exist in multiple species. *Nat Med* **3**, 1337-45 (1997).
- Grafe M., Zakrzewicz A., Graf K., Gaehtgens P., Fleck E.** [Differential reaction of human cardiac macro- and microvascular endothelial cells with respect to leucocyte adhesion and exposition to atherogenic lipoproteins]. *Z Kardiol* **88**, 828-37 (1999).
- Grant M.B., May W.S., Caballero S., Brown G.A., Guthrie S.M., Mames R.N., Byrne B.J., Vaught T., Spoerri P.E., Peck A.B., Scott E.W.** Adult hematopoietic stem cells provide functional hemangioblast activity during retinal neovascularization. *Nat Med* **8**, 607-12 (2002).
- Grazul-Bilska A.T., Redmer D.A., Reynolds L.P.** Cellular interactions in the corpus luteum. *Semin Reprod Endocrinol* **15**, 383-93 (1997).
- Grounds M.D., Garrett K.L., Lai M.C., Wright W.E., Beilharz M.W.** Identification of skeletal muscle precursor cells in vivo by use of MyoD1 and myogenin probes. *Cell Tissue Res* **267**, 99-104 (1992).

- Gualandris A., Presta M.** Transcriptional and posttranscriptional regulation of urokinase-type plasminogen activator expression in endothelial cells by basic fibroblast growth factor. *J Cell Physiol* **162**, 400-9 (1995).
- Guillot P.V., Guan J., Liu L., Kuivenhoven J.A., Rosenberg R.D., Sessa W.C., Aird W.C.** A vascular bed-specific pathway. *J Clin Invest* **103**, 799-805 (1999).
- Guo Y., Follo M., Geiger K., Lubbert M., Engelhardt M.** Side-population cells from different precursor compartments. *J Hematother Stem Cell Res* **12**, 71-82 (2003).
- Haas T.A., Plow E.F.** Integrin-ligand interactions: a year in review. *Curr Opin Cell Biol* **6**, 656-62 (1994).
- Harraz M., Jiao C., Hanlon H.D., Hartley R.S., Schatteman G.C.** CD34- blood-derived human endothelial cell progenitors. *Stem Cells* **19**, 304-12 (2001).
- Harvey K., Welch Z., Kovala A.T., Garcia J.G. English D.** Comparative analysis of in vitro angiogenic activities of endothelial cells of heterogeneous origin. *Microvasc Res* **63**, 316-26 (2002).
- Hattori K., Dias S., Heissig B., Hackett N.R., Lyden D., Tateno M., Hicklin D.J., Zhu Z., Witte L., Crystal R.G., Moore M.A., Rafii S.** Vascular endothelial growth factor and angiopoietin-1 stimulate postnatal hematopoiesis by recruitment of vasculogenic and hematopoietic stem cells. *J Exp Med* **193**, 1005-14 (2001).
- Heeschen C., Aicher A., Lehmann R., Fichtlscherer S., Vasa M., Urbich C., Mildner-Rihm C., Martin H., Zeiher A.M., Dimmeler S.** Erythropoietin is a potent physiologic stimulus for endothelial progenitor cell mobilization. *Blood* **102**, 1340-6 (2003).
- Heissig B., Hattori K., Dias S., Friedrich M., Ferris B., Hackett N.R., Crystal R.G., Besmer P., Lyden D., Moore M.A., Werb Z., Rafii S.** Recruitment of stem and progenitor cells from the bone marrow niche requires MMP-9 mediated release of kit-ligand. *Cell* **109**, 625-37 (2002).
- Heissig B., Werb Z., Rafii S., Hattori K.** Role of c-kit/Kit ligand signaling in regulating vasculogenesis. *Thromb Haemost* **90**, 570-6 (2003).
- Hellstrom M., Kalen M., Lindahl P., Abramsson A., Betsholtz C.** Role of PDGF-B and PDGFR-beta in recruitment of vascular smooth muscle cells and pericytes during embryonic blood vessel formation in the mouse. *Development* **126**, 3047-55 (1999).
- Henninger D.D., Panes J., Eppihimer M., Russell J., Gerritsen M., Anderson D.C., Granger D.N.** Cytokine-induced VCAM-1 and ICAM-1 expression in different organs of the mouse. *J Immunol* **158**, 1825-32 (1997).
- Herzog Y., Kalcheim C., Kahane N., Reshef R., Neufeld G.** Differential expression of neuropilin-1 and neuropilin-2 in arteries and veins. *Mech Dev* **109**, 115-9 (2001).
- Hickey M.J., Granger D.N., Kubes P.** Molecular mechanisms underlying IL-4-induced leukocyte recruitment in vivo: a critical role for the alpha 4 integrin. *J Immunol* **163**, 3441-8 (1999).
- Hidaka M., Stanford W.L., Bernstein A.** Conditional requirement for the Flk-1 receptor in the in vitro generation of early hematopoietic cells. *Proc Natl Acad Sci U S A* **96**, 7370-5 (1999).

Hirschberg R.M., Plendl J. Pododermal angiogenesis and angioadaptation in the bovine claw. *Microsc Res Tech* **66**, 145-55 (2005).

Hochedlinger K., Rideout W.M., Kyba M., Daley G.Q., Blueloch R., Jaenisch R. Nuclear transplantation, embryonic stem cells and the potential for cell therapy. *Hematol J* **5**, S114-7 (2004).

Honda T., Fujiwara H., Yamada S., Fujita K., Nakamura K., Nakayama T., Higuchi T., Ueda M., Maeda M., Mori T. Integrin alpha5 is expressed on human luteinizing granulosa cells during corpus luteum formation, and its expression is enhanced by human chorionic gonadotrophin in vitro. *Mol Hum Reprod* **3**, 979-84 (1997).

Hristov M., Eri W., Weber P.C. Endothelial progenitor cells: mobilization, differentiation, and homing. *Arterioscler Thromb Vasc Biol* **23**, 1185-9 (2003).

Hu Y., Zhang Z., Torsney E., Afzal A.R., Davison F., Metzler B., Xu Q. Abundant progenitor cells in the adventitia contribute to atherosclerosis of vein grafts in ApoE-deficient mice. *J Clin Invest* **113**, 1258-65 (2004).

Huang C.T., Weitsman S.R., Dykes B.N., Magoffin D.A. Stem cell factor and insulin-like growth factor-I stimulate luteinizing hormone-independent differentiation of rat ovarian theca cells. *Biol Reprod* **64**, 451-6 (2001).

Huang E., Nocka K., Beier D.R., Chu T.Y., Buck J., Lahm H.W., Wellner D., Leder P., Besmer P. The hematopoietic growth factor KL is encoded by the Sl locus and is the ligand of the c-kit receptor, the gene product of the W locus. *Cell* **63**, 225-33 (1990).

Huang E.J., Manova K., Packer A.I., Sanchez S., Bachvarova R.F., Besmer P. The murine steel panda mutation affects kit ligand expression and growth of early ovarian follicles. *Dev Biol* **157**, 100-9 (1993).

Hughes F.M., Jr. Gorospe W.C. Biochemical identification of apoptosis (programmed cell death) in granulosa cells: evidence for a potential mechanism underlying follicular atresia. *Endocrinology* **129**, 2415-22 (1991).

Hughes S., Chang-Ling T. Roles of endothelial cell migration and apoptosis in vascular remodeling during development of the central nervous system. *Microcirculation* **7**, 317-33 (2000).

Hurairah H., Ferro A. The role of the endothelium in the control of vascular function. *Int J Clin Pract* **58**, 173-83 (2004).

Hynes R.O. Integrins: versatility, modulation, and signaling in cell adhesion. *Cell* **69**, 11-25 (1992).

Hynes R.O., Bader B.L., Hodivala-Dilke K. Integrins in vascular development. *Braz J Med Biol Res* **32**, 501-10 (1999).

Iivanainen E., Kahari V.M., Heino J., Elenius K. Endothelial cell-matrix interactions. *Microsc Res Tech* **60**, 13-22 (2003).

Ilan N., Mahooti S., Rimm D.L., Madri J.A. PECAM-1 (CD31) functions as a reservoir for and a modulator of tyrosine-phosphorylated beta-catenin. *J Cell Sci* **112 Pt 18**, 3005-14 (1999).

- Ingram D.A., Mead L.E., Moore D.B., Woodard W., Fenoglio A., Yoder M.C.** Vessel wall-derived endothelial cells rapidly proliferate because they contain a complete hierarchy of endothelial progenitor cells. *Blood* **105**, 2783-6 (2005).
- Ingram D.A., Mead L.E., Tanaka H., Meade V., Fenoglio A., Mortell K., Pollok K., Ferko-wicz M.J., Gilley D., Yoder M.C.** Identification of a novel hierarchy of endothelial progenitor cells using human peripheral and umbilical cord blood. *Blood* **104**, 2752-60 (2004).
- Ishii H., Salem H.H., Bell C.E., Laposata E.A., Majerus P.W.** Thrombomodulin, an endothelial anticoagulant protein, is absent from the human brain. *Blood* **67**, 362-5 (1986).
- Iwakura A., Luedemann C., Shastry S., Hanley A., Kearney M., Aikawa R., Isner J.M., Asahara T., Losordo D.W.** Estrogen-mediated, endothelial nitric oxide synthase-dependent mobilization of bone marrow-derived endothelial progenitor cells contributes to reendotheli-alization after arterial injury. *Circulation* **108**, 3115-21 (2003).
- Jackson K.A., Majka S.M., Wang H., Pocius J., Hartley C.J., Majesky M.W., Entman M.L., Michael L.H., Hirschi K.K., Goodell M.A.** Regeneration of ischemic cardiac muscle and vascular endothelium by adult stem cells. *J Clin Invest* **107**, 1395-402 (2001).
- Jackson K.A., Mi T., Goodell M.A.** Hematopoietic potential of stem cells isolated from mur-ine skeletal muscle. *Proc Natl Acad Sci U S A* **96**, 14482-6 (1999).
- Jain R.K.** Molecular regulation of vessel maturation. *Nat Med* **9**, 685-93 (2003).
- Janzer R.C., Raff M.C.** Astrocytes induce blood-brain barrier properties in endothelial cells. *Nature* **325**, 253-7 (1987).
- Jiang Y., Vaessen B., Lenvik T., Blackstad M., Reyes M., Verfaillie C.M.** Multipotent pro-genitor cells can be isolated from postnatal murine bone marrow, muscle, and brain. *Exp Hematol* **30**, 896-904 (2002).
- Johnson J., Canning J., Kaneko T., Pru J.K., Tilly J.L.** Germline stem cells and follicular renewal in the postnatal mammalian ovary. *Nature* **428**, 145-50 (2004).
- Junqueira L.C., Carneiro J., Kelley R.O.** Kreislaufsystem. In: *Histologie*. 5. Auflage. Sprin-ger Verlag, Berlin/Heidelberg, S. 163-187 (2002).
- Kakizawa H., Itoh M., Itoh Y., Imamura S., Ishiwata Y., Matsumoto T., Yamamoto K., Ka-to T., Ono Y., Nagata M., Hayakawa N., Suzuki A., Goto Y., Oda N.** The relationship bet-ween glycemic control and plasma vascular endothelial growth factor and endothelin-1 con-centration in diabetic patients. *Metabolism* **53**, 550-5 (2004).
- Kalka C., Asahara T., Krone W., Isner J.M.** [Angiogenesis and vasculogenesis. Therapeutic strategies for stimulation of postnatal neovascularization]. *Herz* **25**, 611-22 (2000).
- Kanayasu-Toyoda T., Yamaguchi T., Oshizawa T., Hayakawa T.** CD31 (PECAM-1)-bright cells derived from AC133-positive cells in human peripheral blood as endothelial-precursor cells. *J Cell Physiol* **195**, 119-29 (2003).
- Kendall R.L., Thomas K.A.** Inhibition of vascular endothelial cell growth factor activity by an endogenously encoded soluble receptor. *Proc Natl Acad Sci U S A* **90**, 10705-9 (1993).

- Kennel S.J., Hotchkiss J.A., Rorvik M.C., Allison D.P., Foote L.J.** Rat monoclonal antibodies to mouse lung components for analysis of fibrosis. *Exp Mol Pathol* **47**, 110-24 (1987).
- Kevil C.G., Payne D.K., Mire E., Alexander J.S.** Vascular permeability factor/vascular endothelial cell growth factor-mediated permeability occurs through disorganization of endothelial junctional proteins. *J Biol Chem* **273**, 15099-103 (1998).
- Khakoo A.Y., Finkel T.** Endothelial progenitor cells. *Annu Rev Med* **56**, 79-101 (2005).
- Khan-Dawood F.S.** Oxytocin in intercellular communication in the corpus luteum. *Semin Reprod Endocrinol* **15**, 395-407 (1997).
- Kibria G., Heath D., Smith P., Biggar R.** Pulmonary endothelial pavement patterns. *Thorax* **35**, 186-91 (1980).
- Kieda C.** How endothelial cell organo-specificity mediates circulating cell homing. *Arch Immunol Ther Exp (Warsz)* **51**, 81-9 (2003).
- Kim K.Y., Jeong S.Y., Won J., Ryu P.D., Nam M.J.** Induction of angiogenesis by expression of soluble type II transforming growth factor-beta receptor in mouse hepatoma. *J Biol Chem* **276**, 38781-6 (2001).
- Kocher A.A., Schuster M.D., Szabolcs M.J., Takuma S., Burkhoff D., Wang J., Homma S., Edwards N.M., Itescu S.** Neovascularization of ischemic myocardium by human bone-marrow-derived angioblasts prevents cardiomyocyte apoptosis, reduces remodeling and improves cardiac function. *Nat Med* **7**, 430-6 (2001).
- Kohn S., Nagy J.A., Dvorak H.F., Dvorak A.M.** Pathways of macromolecular tracer transport across venules and small veins. Structural basis for the hyperpermeability of tumor blood vessels. *Lab Invest* **67**, 596-607 (1992).
- Kotch L.E., Iyer N.V., Laughner E., Semenza G.L.** Defective vascularization of HIF-1alpha-null embryos is not associated with VEGF deficiency but with mesenchymal cell death. *Dev Biol* **209**, 254-67 (1999).
- Kramer R.H., Bensch K.G., Davison P.M., Karasek M.A.** Basal lamina formation by cultured microvascular endothelial cells. *J Cell Biol* **99**, 692-8 (1984).
- Krause D.S., Fackler M.J., Civin C.I., May W.S.** CD34: structure, biology, and clinical utility. *Blood* **87**, 1-13 (1996).
- Kritzenberger M., Wrobel K.H.** Histochemical in situ identification of bovine embryonic blood cells reveals differences to the adult haematopoietic system and suggests a close relationship between haematopoietic stem cells and primordial germ cells. *Histochem Cell Biol* **121**, 273-89 (2004).
- Kubota Y., Kawa Y., Mizoguchi M.** CDw49b/CD29 integrin complex mediates the differentiation of human endothelial cells into capillary-like structures in vitro. *J Dermatol Sci* **12**, 36-43 (1996).
- Kumar S., West D.C., Ager A.** Heterogeneity in endothelial cells from large vessels and microvessels. *Differentiation* **36**, 57-70 (1987).
- Kurz H., Christ B.** Vascular development of the brain and spinal cord. In: *Assembly of the vasculature and its regulation*. 1. Auflage. Birkhäuser Verlag, Boston, S. 157- 192 (2001).

- Lammert E., Cleaver O., Melton D.** Induction of pancreatic differentiation by signals from blood vessels. *Science* **294**, 564-7 (2001).
- Lamszus K.** Methods to study Angiogenesis in vitro. In: *Angiogenesis in Brain tumors*. 1. Auflage. Kluwer Academic Publishers, Boston/Dordrecht/London, S. 141-6 (2004).
- Lang I., Hoffmann C., Olip H., Pabst M.A., Hahn T., Dohr G., Desoye G.** Differential mitogenic responses of human macrovascular and microvascular endothelial cells to cytokines underline their phenotypic heterogeneity. *Cell Prolif* **34**, 143-55 (2001).
- Larson D.M. Sheridan J.D.** Junctional transfer in cultured vascular endothelium: II. Dye and nucleotide transfer. *J Membr Biol* **83**, 157-67 (1985).
- LeCouter J., Kowalski J., Foster J., Hass P., Zhang Z., Dillard-Telm L., Frantz G., Rangell L., DeGuzman L., Keller G.A., Peale F., Gurney A., Hillan K.J., Ferrara N.** Identification of an angiogenic mitogen selective for endocrine gland endothelium. *Nature* **412**, 877-84 (2001).
- LeCouter J., Lin R., Ferrara N.** Endocrine gland-derived VEGF and the emerging hypothesis of organ-specific regulation of angiogenesis. *Nat Med* **8**, 913-7 (2002).
- Lee S.H., Wolf P.L., Escudero R., Deutsch R., Jamieson S.W., Thistlethwaite P.A.** Early expression of angiogenesis factors in acute myocardial ischemia and infarction. *N Engl J Med* **342**, 626-33 (2000).
- Lehmann I., Brylla E., Sittig D., Spanel-Borowski K., Aust G.** Microvascular endothelial cells differ in their basal and tumour necrosis factor-alpha-regulated expression of adhesion molecules and cytokines. *J Vasc Res* **37**, 408-16 (2000).
- Leu S.J., Lam S.C., Lau L.F.** Pro-angiogenic activities of CYR61 (CCN1) mediated through integrins α v β 3 and α 6 β 1 in human umbilical vein endothelial cells. *J Biol Chem* **277**, 46248-55 (2002).
- Li J., Zhang Y.P., Kirsner R.S.** Angiogenesis in wound repair: angiogenic growth factors and the extracellular matrix. *Microsc Res Tech* **60**, 107-14 (2003).
- Li Z.J., Wang Z.Z., Zheng Y.Z., Xu B., Yang R.C., Scadden D.T., Han Z.C.** Kinetic expression of platelet endothelial cell adhesion molecule-1 (PECAM-1/CD31) during embryonic stem cell differentiation. *J Cell Biochem* **95**, 559-70 (2005).
- Liebich H.-G.** Funktionelle Histologie der Haussäugetiere. Lehrbuch und Farbatlas der mikroskopischen Anatomie der Haussäugetiere. 2. Auflage. Stuttgart/New York, Schattauer (2003).
- Lienau J.** Etablierung von in vitro-Modellen der Angiogenese muriner und humaner Endothelzellen sowie deren Transfektion mit verschiedenen Plasmidkonstrukten. *Dissertation*. Fachbereich Veterinärmedizin. Freie Universität Berlin (2003).
- Lienau J., Kaletta C., Teifel M., Naujoks K., Bhoola K., Plendl J.** Morphology and transfection study of human microvascular endothelial cell angiogenesis: an in vitro three-dimensional model. *Biol Chem* **386**, 167-75 (2005).
- Lin Y., Weisdorf D.J., Solovey A., Hebbel R.P.** Origins of circulating endothelial cells and endothelial outgrowth from blood. *J Clin Invest* **105**, 71-7 (2000).

- Lipton B.H., Bensch K.G., Karasek M.A.** Histamine-modulated transdifferentiation of dermal microvascular endothelial cells. *Exp Cell Res* **199**, 279-91 (1992).
- Liu Z.J., Snyder R., Soma A., Shirakawa T., Ziober B.L., Fairman R.M., Herlyn M., Velazquez O.C.** VEGF-A and alphaVbeta3 integrin synergistically rescue angiogenesis via N-Ras and PI3-K signaling in human microvascular endothelial cells. *Faseb J* **17**, 1931-3 (2003).
- Luttun A., Carmeliet G., Carmeliet P.** Vascular progenitors: from biology to treatment. *Trends Cardiovasc Med* **12**, 88-96 (2002).
- Machein M.R., Plate K.H.** Role of VEGF in developmental angiogenesis and in tumor angiogenesis in the brain. *Cancer Treat Res* **117**, 191-218 (2004).
- Maisonpierre P.C., Suri C., Jones P.F., Bartunkova S., Wiegand S.J., Radziejewski C., Compton D., McClain J., Aldrich T.H., Papadopoulos N., Daly T.J., Davis S., Sato T.N., Yancopoulos G.D.** Angiopoietin-2, a natural antagonist for Tie2 that disrupts in vivo angiogenesis. *Science* **277**, 55-60 (1997).
- Malinda K.M., Ponce L., Kleinman H.K., Shackelton L.M., Millis A.J.** Gp38k, a protein synthesized by vascular smooth muscle cells, stimulates directional migration of human umbilical vein endothelial cells. *Exp Cell Res* **250**, 168-73 (1999).
- Manova K., Huang E.J., Angeles M., De Leon V., Sanchez S., Pronovost S.M., Besmer P., Bachvarova R.F.** The expression pattern of the c-kit ligand in gonads of mice supports a role for the c-kit receptor in oocyte growth and in proliferation of spermatogonia. *Dev Biol* **157**, 85-99 (1993).
- Marcos M.A., Morales-Alcelay S., Godin I.E., Dieterlen-Lievre F., Copin S.G., Gaspar M.L.** Antigenic phenotype and gene expression pattern of lymphohemopoietic progenitors during early mouse ontogeny. *J Immunol* **158**, 2627-37 (1997).
- Masson-Gadais B., Houle F., Laferriere J., Huot J.** Integrin alphavbeta3, requirement for VEGFR2-mediated activation of SAPK2/p38 and for Hsp90-dependent phosphorylation of focal adhesion kinase in endothelial cells activated by VEGF. *Cell Stress Chaperones* **8**, 37-52 (2003).
- Matsui J., Wakabayashi T., Asada M., Yoshimatsu K., Okada M.** Stem cell factor/c-kit signaling promotes the survival, migration, and capillary tube formation of human umbilical vein endothelial cells. *J Biol Chem* **279**, 18600-7 (2004).
- Matsumoto K., Yoshitomi H., Rossant J., Zaret K.S.** Liver organogenesis promoted by endothelial cells prior to vascular function. *Science* **294**, 559-63 (2001).
- Matsumoto T., Claesson-Welsh L.** VEGF receptor signal transduction. *Sci STKE* **2001**, RE21 (2001).
- McCarthy S.A., Kuzu I., Gatter K.C., Bicknell R.** Heterogeneity of the endothelial cell and its role in organ preference of tumour metastasis. *Trends Pharmacol Sci* **12**, 462-7 (1991).
- Medvinsky A., Dzierzak E.** Definitive hematopoiesis is autonomously initiated by the AGM region. *Cell* **86**, 897-906 (1996).

Meerovitch K., Bergeron F., Leblond L., Grouix B., Poirier C., Bubenik M., Chan L., Gourdeau H., Bowlin T., Attardo G. A novel RGD antagonist that targets both α v β 3 and α 5 β 1 induces apoptosis of angiogenic endothelial cells on type I collagen. *Vascul Pharmacol* **40**, 77-89 (2003).

Meyer G.T., Matthias L.J., Noack L., Vadas M.A., Gamble J.R. Lumen formation during angiogenesis in vitro involves phagocytic activity, formation and secretion of vacuoles, cell death, and capillary tube remodelling by different populations of endothelial cells. *Anat Rec* **249**, 327-40 (1997).

Michalak T., White F.P., Gard A.L., Dutton G.R. A monoclonal antibody to the endothelium of rat brain microvessels. *Brain Res* **379**, 320-8 (1986).

Michiels C. Endothelial cell functions. *J Cell Physiol* **196**, 430-43 (2003).

Mignatti P., Rifkin D.B. Plasminogen activators and matrix metalloproteinases in angiogenesis. *Enzyme Protein* **49**, 117-37 (1996).

Milici A.J., Furie M.B., Carley W.W. The formation of fenestrations and channels by capillary endothelium in vitro. *Proc Natl Acad Sci U S A* **82**, 6181-5 (1985).

Miquerol L., Gertsenstein M., Harpal K., Rossant J., Nagy A. Multiple developmental roles of VEGF suggested by a LacZ-tagged allele. *Dev Biol* **212**, 307-22 (1999).

Miraglia S., Godfrey W., Yin A.H., Atkins K., Warnke R., Holden J.T., Bray R.A., Waller E.K., Buck D.W. A novel five-transmembrane hematopoietic stem cell antigen: isolation, characterization, and molecular cloning. *Blood* **90**, 5013-21 (1997).

Moldovan N.I., Goldschmidt-Clermont P.J., Parker-Thornburg J., Shapiro S.D., Kolattukudy P.E. Contribution of monocytes/macrophages to compensatory neovascularization: the drilling of metalloelastase-positive tunnels in ischemic myocardium. *Circ Res* **87**, 378-84 (2000).

Morin O., Patry P., Lafleur L. Heterogeneity of endothelial cells of adult rat liver as resolved by sedimentation velocity and flow cytometry. *J Cell Physiol* **119**, 327-34 (1984).

Moser M., Binder O., Wu Y., Aitsebaomo J., Ren R., Bode C., Bautch V.L., Conlon F.L., Patterson C. BMPER, a novel endothelial cell precursor-derived protein, antagonizes bone morphogenetic protein signaling and endothelial cell differentiation. *Mol Cell Biol* **23**, 5664-79 (2003).

Muller A.M., Medvinsky A., Strouboulis J., Grosveld F., Dzierzak E. Development of hematopoietic stem cell activity in the mouse embryo. *Immunity* **1**, 291-301 (1994).

Murakami S., Morioka T., Nakagawa Y., Suzuki Y., Arakawa M., Oite T. Expression of adhesion molecules by cultured human glomerular endothelial cells in response to cytokines: comparison to human umbilical vein and dermal microvascular endothelial cells. *Microvasc Res* **62**, 383-91 (2001).

Murga M., Yao L., Tosato G. Derivation of endothelial cells from CD34- umbilical cord blood. *Stem Cells* **22**, 385-95 (2004).

Naiyer A.J., Jo D.Y., Ahn J., Mohle R., Peichev M., Lam G., Silverstein R.L., Moore M.A., Rafii S. Stromal derived factor-1-induced chemokinesis of cord blood CD34(+) cells (long-

- term culture-initiating cells) through endothelial cells is mediated by E-selectin. *Blood* **94**, 4011-9 (1999).
- Nakamura T., Mochizuki Y., Kanetake H., Kanda S.** Signals via FGF receptor 2 regulate migration of endothelial cells. *Biochem Biophys Res Commun* **289**, 801-6 (2001).
- Neufeld G., Cohen T., Shraga N., Lange T., Kessler O., Herzog Y.** The neuropilins: multi-functional semaphorin and VEGF receptors that modulate axon guidance and angiogenesis. *Trends Cardiovasc Med* **12**, 13-9 (2002).
- Nicosia R.F., Nicosia S.V., Smith M.** Vascular endothelial growth factor, platelet-derived growth factor, and insulin-like growth factor-1 promote rat aortic angiogenesis in vitro. *Am J Pathol* **145**, 1023-9 (1994).
- Nicosia R.F., Villaschi S.** Autoregulation of angiogenesis by cells of the vessel wall. *Int Rev Cytol* **185**, 1-43 (1999).
- Nisato R.E., Tille J.C., Jonczyk A., Goodman S.L., Pepper M.S.** α 3 and α 5 integrin antagonists inhibit angiogenesis in vitro. *Angiogenesis* **6**, 105-19 (2003).
- Nishikawa S.I., Nishikawa S., Hirashima M., Matsuyoshi N., Kodama H.** Progressive lineage analysis by cell sorting and culture identifies FLK1+VE-cadherin+ cells at a diverging point of endothelial and hemopoietic lineages. *Development* **125**, 1747-57 (1998).
- Niswender G.D., Schwall R.H., Fitz T.A., Farin C.E., Sawyer H.R.** Regulation of luteal function in domestic ruminants: new concepts. *Recent Prog Horm Res* **41**, 101-51 (1985).
- Nottola S.A., Macchiarelli G., Motta P.M.** The angioarchitecture of estrous, pseudopregnant and pregnant rabbit ovary as seen by scanning electron microscopy of vascular corrosion casts. *Cell Tissue Res* **288**, 353-63 (1997).
- Nowak G., Karrar A., Holmen C., Nava S., Uzunel M., Hultenby K., Sumitran-Holgersson S.** Expression of vascular endothelial growth factor receptor-2 or Tie-2 on peripheral blood cells defines functionally competent cell populations capable of reendothelialization. *Circulation* **110**, 3699-707 (2004).
- Ohbayashi A., Hiraga T., Okubo M., Murase T., Matsushita H., Hara M.** Characteristics of porcine coronary artery endothelial cells in culture: comparison with aortic endothelium. *Biochem Biophys Res Commun* **202**, 504-11 (1994).
- Oishi K., Kobayashi A., Fujii K., Kanehira D., Ito Y., Uchida M.K.** Angiogenesis in vitro: vascular tube formation from the differentiation of neural stem cells. *J Pharmacol Sci* **96**, 208-18 (2004).
- Orlic D.** Stem cell repair in ischemic heart disease: an experimental model. *Int J Hematol* **76 Suppl 1**, 144-5 (2002).
- Orlic D.** Adult bone marrow stem cells regenerate myocardium in ischemic heart disease. *Ann N Y Acad Sci* **996**, 152-7 (2003).
- Orlic D., Kajstura J., Chimenti S., Bodine D.M., Leri A., Anversa P.** Bone marrow stem cells regenerate infarcted myocardium. *Pediatr Transplant* **7 Suppl 3**, 86-8 (2003).
- O'Shea J.D., Cran D.G., Hay M.F.** Fate of the theca interna following ovulation in the ewe. *Cell Tissue Res* **210**, 305-19 (1980).

- Ozerdem U., Stallcup W.B.** Early contribution of pericytes to angiogenic sprouting and tube formation. *Angiogenesis* **6**, 241-9 (2003).
- Packer A.I., Hsu Y.C., Besmer P., Bachvarova R.F.** The ligand of the c-kit receptor promotes oocyte growth. *Dev Biol* **161**, 194-205 (1994).
- Page C., Rose M., Yacoub M., Pigott R.** Antigenic heterogeneity of vascular endothelium. *Am J Pathol* **141**, 673-83 (1992).
- Paku S.** Current concepts of tumor-induced angiogenesis. *Pathol Oncol Res* **4**, 62-75 (1998).
- Papayannopoulou T.** Current mechanistic scenarios in hematopoietic stem/progenitor cell mobilization. *Blood* **103**, 1580-5 (2004).
- Papetti M., Herman I.M.** Mechanisms of normal and tumor-derived angiogenesis. *Am J Physiol Cell Physiol* **282**, C947-70 (2002).
- Paranya G., Vineberg S., Dvorin E., Kaushal S., Roth S.J., Rabkin E., Schoen F.J., Bischoff J.** Aortic valve endothelial cells undergo transforming growth factor-beta-mediated and non-transforming growth factor-beta-mediated transdifferentiation in vitro. *Am J Pathol* **159**, 1335-43 (2001).
- Parmar K., Sauk-Schubert C., Burdick D., Handley M., Mauch P.** Sca+CD34- murine side population cells are highly enriched for primitive stem cells. *Exp Hematol* **31**, 244-50 (2003).
- Parrott J.A., Skinner M.K.** Kit ligand actions on ovarian stromal cells: effects on theca cell recruitment and steroid production. *Mol Reprod Dev* **55**, 55-64 (2000).
- Patan S.** Vasculogenesis and angiogenesis as mechanisms of vascular network formation, growth and remodeling. *J Neurooncol* **50**, 1-15 (2000).
- Patan S.** Vasculogenesis and angiogenesis. *Cancer Treat Res* **117**, 3-32 (2004).
- Patil S., Newman D.K., Newman P.J.** Platelet endothelial cell adhesion molecule-1 serves as an inhibitory receptor that modulates platelet responses to collagen. *Blood* **97**, 1727-32 (2001).
- Pedram A., Razandi M., Hu R.M., Levin E.R.** Vasoactive peptides modulate vascular endothelial cell growth factor production and endothelial cell proliferation and invasion. *J Biol Chem* **272**, 17097-103 (1997).
- Peichev M., Naiyer A.J., Pereira D., Zhu Z., Lane W.J., Williams M., Oz M.C., Hicklin D.J., Witte L., Moore M.A., Rafii S.** Expression of VEGFR-2 and AC133 by circulating human CD34(+) cells identifies a population of functional endothelial precursors. *Blood* **95**, 952-8 (2000).
- Pepper M.S.** Manipulating angiogenesis. From basic science to the bedside. *Arterioscler Thromb Vasc Biol* **17**, 605-19 (1997a).
- Pepper M.S.** Transforming growth factor-beta: vasculogenesis, angiogenesis, and vessel wall integrity. *Cytokine Growth Factor Rev* **8**, 21-43 (1997b).
- Peters K., Troyer D., Kummer S., Kirkpatrick C.J., Rauterberg J.** Apoptosis causes lumen formation during angiogenesis in vitro. *Microvasc Res* **64**, 334-8 (2002).

Pettersson A., Nagy J.A., Brown L.F., Sundberg C., Morgan E., Jungles S., Carter R., Krieger J.E., Manseau E.J., Harvey V.S., Eckelhoefer I.A., Feng D., Dvorak A.M., Mulligan R.C., Dvorak H.F. Heterogeneity of the angiogenic response induced in different normal adult tissues by vascular permeability factor/vascular endothelial growth factor. *Lab Invest* **80**, 99-115 (2000).

Pillariseti K., Gupta S.K. Cloning and relative expression analysis of rat stromal cell derived factor-1 (SDF-1)1: SDF-1 alpha mRNA is selectively induced in rat model of myocardial infarction. *Inflammation* **25**, 293-300 (2001).

Pinter E., Barreuther M., Lu T., Imhof B.A., Madri J.A. Platelet-endothelial cell adhesion molecule-1 (PECAM-1/CD31) tyrosine phosphorylation state changes during vasculogenesis in the murine conceptus. *Am J Pathol* **150**, 1523-30 (1997).

Plendl J. Das Gefäßendothel: Organ- und entwicklungsspezifische Heterogenität im in vitro Modell. *Habilitationsschrift*. Tierärztliche Fakultät der Ludwig-Maximilians-Universität München (1997).

Plendl J. Angiogenesis and vascular regression in the ovary. *Anat Histol Embryol* **29**, 257-66 (2000).

Plendl J., Hartwell L., Auerbach R. Organ-specific change in Dolichos biflorus lectin binding by myocardial endothelial cells during in vitro cultivation. *In Vitro Cell Dev Biol* **29A**, 25-31 (1993).

Plendl J., Hirschberg R.M. Angiogenese und vaskuläre Mimikry. *VetMed Report* **28**, 2 (2004a).

Plendl J., Hirschberg R.M. Cyclic vascularization of the corpus luteum: angiogenesis and vascular mimicry. *Wiener tierärztliche Monatsschrift* **91**, 51 (2004b).

Plendl J., Hirschberg R.M., Hünigen H. Mechanismen der vaskulären Entwicklung und Regression. *Tierärztliche Praxis Kleintiere* **30**, 243-53 (2002a).

Plendl J., Neumuller C., Sinowatz F. Differences of microvascular endothelium in the bovine corpus luteum of pregnancy and the corpus luteum of the estrous cycle. *Biol Cell* **87**, 179-88 (1996a).

Plendl J., Neumuller C., Vollmar A., Auerbach R., Sinowatz F. Isolation and characterization of endothelial cells from different organs of fetal pigs. *Anat Embryol (Berl)* **194**, 445-56 (1996b).

Plendl J., Schoenleber B., Schmahl W., Murray A.B., Sinowatz F. Sexual dimorphism of the kidney in the NMRI mouse as shown by Dolichos biflorus agglutinin labelling. *Anat Histol Embryol* **21**, 118-26 (1992a).

Plendl J., Sinowatz F. Angiogenese und Antiangiogenese: neue therapeutische Strategien. *Tierärztliche Praxis Kleintiere* **27**, 348-53 (1999).

Plendl J., Sinowatz F., Auerbach R. [The heterogeneity of the vascular endothelium]. *Anat Histol Embryol* **21**, 256-62 (1992b).

Plendl J., Sinowatz F., Auerbach R., Gabius H.J. Quantitative differences in neoglycoprotein binding for vascular endothelial cells from porcine brain, ovary, and testis in vitro. *Microvasc Res* **50**, 199-214 (1995).

Plendl J., Snyman C., Bhoola K.D. Expression of the tissue kallikrein-kinin cascade in granulosa cells of the ovary. *Biol Chem* **383**, 1917-24 (2002b).

Plendl J., Snyman C., Bhoola K.D. Visualization of the sequential changes in immunolabelled tissue kininogenase which accompany follicular development and luteinization of angiogenic granulosa cells of the ovary. *Int Immunopharmacol* **2**, 1981-94 (2002c).

Ponder B.A., Wilkinson M.M. Organ-related differences in binding of Dolichos biflorus agglutinin to vascular endothelium. *Dev Biol* **96**, 535-41 (1983).

Poole T.J., Finkelstein E.B., Cox C.M. The role of FGF and VEGF in angioblast induction and migration during vascular development. *Dev Dyn* **220**, 1-17 (2001).

Porter G.A., Palade G.E., Milici A.J. Differential binding of the lectins Griffonia simplicifolia I and Lycopersicon esculentum to microvascular endothelium: organ-specific localization and partial glycoprotein characterization. *Eur J Cell Biol* **51**, 85-95 (1990).

Prockop D.J. Marrow stromal cells as stem cells for continual renewal of nonhematopoietic tissues and as potential vectors for gene therapy. *J Cell Biochem Suppl* **30-31**, 284-5. (1998).

Procopio W.N., Pelavin P.I., Lee W.M., Yeilding N.M. Angiopoietin-1 and -2 coiled coil domains mediate distinct homo-oligomerization patterns, but fibrinogen-like domains mediate ligand activity. *J Biol Chem* **274**, 30196-201 (1999).

Quirici N., Soligo D., Caneva L., Servida F., Bossolasco P., Deliliers G.L. Differentiation and expansion of endothelial cells from human bone marrow CD133(+) cells. *Br J Haematol* **115**, 186-94 (2001).

Rabbany S.Y., Heissig B., Hattori K., Rafii S. Molecular pathways regulating mobilization of marrow-derived stem cells for tissue revascularization. *Trends Mol Med* **9**, 109-17 (2003).

Rafii S. Circulating endothelial precursors: mystery, reality, and promise. *J Clin Invest* **105**, 17-9 (2000).

Rafii S., Shapiro F., Pettengell R., Ferris B., Nachman R.L., Moore M.A., Asch A.S. Human bone marrow microvascular endothelial cells support long-term proliferation and differentiation of myeloid and megakaryocytic progenitors. *Blood* **86**, 3353-63 (1995).

Ratajczak M.Z., Pletcher C.H., Marlicz W., Machalinski B., Moore J., Wasik M., Ratajczak J., Gewirtz A.M. CD34+, kit+, rhodamine123(low) phenotype identifies a marrow cell population highly enriched for human hematopoietic stem cells. *Leukemia* **12**, 942-50 (1998).

Redick S.D., Bautch V.L. Developmental platelet endothelial cell adhesion molecule expression suggests multiple roles for a vascular adhesion molecule. *Am J Pathol* **154**, 1137-47 (1999).

Redmer D.A., Grazul-Bilska A.T., Reynolds L.P. Contact-dependent intercellular communication of bovine luteal cells in culture. *Endocrinology* **129**, 2757-66 (1991).

- Redmer D.A., Reynolds L.P.** Angiogenesis in the ovary. *Rev Reprod* **1**, 182-92 (1996).
- Reese D.E., Mikawa T., Bader D.M.** Development of the coronary vessel system. *Circ Res* **91**, 761-8 (2002).
- Reyes M., Dudek A., Jahagirdar B., Koodie L., Marker P.H., Verfaillie C.M.** Origin of endothelial progenitors in human postnatal bone marrow. *J Clin Invest* **109**, 337-46 (2002).
- Reyes M., Lund T., Lenvik T., Aguiar D., Koodie L., Verfaillie C.M.** Purification and ex vivo expansion of postnatal human marrow mesodermal progenitor cells. *Blood* **98**, 2615-25 (2001).
- Reynolds L.P., Redmer D.A.** Expression of the angiogenic factors, basic fibroblast growth factor and vascular endothelial growth factor, in the ovary. *J Anim Sci* **76**, 1671-81 (1998).
- Rhodin J.A.** The ultrastructure of mammalian arterioles and precapillary sphincters. *J Ultrastruct Res* **18**, 181-223 (1967).
- Ribatti D., Nico B., Vacca A., Roncali L., Dammacco F.** Endothelial cell heterogeneity and organ specificity. *J Hematother Stem Cell Res* **11**, 81-90 (2002).
- Richardson K.C., Jarett L., Finke E.H.** Embedding in epoxy resins for ultrathin sectioning in electron microscopy. *Stain Technol* **35**, 313-23. (1960).
- Riese J., Zeller R., Dono R.** Nucleo-cytoplasmic translocation and secretion of fibroblast growth factor-2 during avian gastrulation. *Mech Dev* **49**, 13-22 (1995).
- Risau W.** [Endothelium, angiogenesis and metastasis]. *Onkologie* **10**, 260-2 (1987).
- Risau W.** Differentiation of endothelium. *Faseb J* **9**, 926-33 (1995).
- Risau W., Flamme I.** Vasculogenesis. *Annu Rev Cell Dev Biol* **11**, 73-91 (1995).
- Robert B., St John P.L., Abrahamson D.R.** Direct visualization of renal vascular morphogenesis in Flk1 heterozygous mutant mice. *Am J Physiol* **275**, F164-72 (1998).
- Robert J.** Vascular development of the heart. In: *Assembly of the vasculature and its regulation*. 1. Auflage. Birkhäuser Verlag, Boston, S. 133-156 (2001).
- Robson P.** Role of cell adhesion receptors in vascular development: an overview. In: *Assembly of the vasculature and its regulation*. 1. Auflage. Birkhäuser Verlag, Boston, S. 97-131 (2001).
- Rupp P.A., Czirok A., Little C.D.** α v β 3 integrin-dependent endothelial cell dynamics in vivo. *Development* **131**, 2887-97 (2004).
- Rüsse I., Sinowatz F.** Lehrbuch der Embryologie der Haustiere. 2. Auflage. Berlin/Hamburg, Paul Parey (1998).
- Saha M.S., Cox E.A., Sipe C.W.** Mechanisms regulating the origins of the vertebrate vascular system. *J Cell Biochem* **93**, 46-56 (2004).
- Sanchez-Elsner T., Botella L.M., Velasco B., Corbi A., Attisano L., Bernabeu C.** Synergistic cooperation between hypoxia and transforming growth factor-beta pathways on human vascular endothelial growth factor gene expression. *J Biol Chem* **276**, 38527-35 (2001).

- Sato Y.** Current understanding of the biology of vascular endothelium. *Cell Struct Funct* **26**, 9-10 (2001).
- Schatteman G.C., Awad O.** Hemangioblasts, angioblasts, and adult endothelial cell progenitors. *Anat Rec A Discov Mol Cell Evol Biol* **276**, 13-21 (2004).
- Schmeisser A., Graffy C., Daniel W.G., Strasser R.H.** Phenotypic overlap between monocytes and vascular endothelial cells. *Adv Exp Med Biol* **522**, 59-74 (2003).
- Schmeisser A., Strasser R.H.** Phenotypic overlap between hematopoietic cells with suggested angioblastic potential and vascular endothelial cells. *J Hematother Stem Cell Res* **11**, 69-79 (2002).
- Schnitzer J.E., Shen C.P., Palade G.E.** Lectin analysis of common glycoproteins detected on the surface of continuous microvascular endothelium in situ and in culture: identification of sialoglycoproteins. *Eur J Cell Biol* **52**, 241-51 (1990).
- Schuh A.C., Faloon P., Hu Q.L., Bhimani M., Choi K.** In vitro hematopoietic and endothelial potential of flk-1(-/-) embryonic stem cells and embryos. *Proc Natl Acad Sci U S A* **96**, 2159-64 (1999).
- Schuster S.** Zelluläre und molekulare Mechanismen der in vitro-Angiogenese: Lichtmikroskopische, elektronenmikroskopische, immunhistochemische und molekularbiologische Untersuchungen. *Dissertation*. Fachbereich Veterinärmedizin. Freie Universität Berlin (2002).
- Schwall R.H., Gamboni F., Mayan M.H., Niswender G.D.** Changes in the distribution of sizes of ovine luteal cells during the estrous cycle. *Biol Reprod* **34**, 911-8 (1986).
- Senger D.R., Perruzzi C.A., Streit M., Kotliansky V.E., de Fougerolles A.R., Detmar M.** The alpha(1)beta(1) and alpha(2)beta(1) integrins provide critical support for vascular endothelial growth factor signaling, endothelial cell migration, and tumor angiogenesis. *Am J Pathol* **160**, 195-204 (2002).
- Sepp N.T., Li L.J., Lee K.H., Brown E.J., Caughman S.W., Lawley T.J., Swerlick R.A.** Basic fibroblast growth factor increases expression of the alpha v beta 3 integrin complex on human microvascular endothelial cells. *J Invest Dermatol* **103**, 295-9 (1994).
- Shalaby F., Rossant J., Yamaguchi T.P., Gertsenstein M., Wu X.F., Breitman M.L., Schuh A.C.** Failure of blood-island formation and vasculogenesis in Flk-1-deficient mice. *Nature* **376**, 62-6 (1995).
- Shi Q., Rafii S., Wu M.H., Wijelath E.S., Yu C., Ishida A., Fujita Y., Kothari S., Mohle R., Sauvage L.R., Moore M.A., Storb R.F., Hammond W.P.** Evidence for circulating bone marrow-derived endothelial cells. *Blood* **92**, 362-7 (1998).
- Shi Q., Wu M.H., Hayashida N., Wechezak A.R., Clowes A.W., Sauvage L.R.** Proof of fall-out endothelialization of impervious Dacron grafts in the aorta and inferior vena cava of the dog. *J Vasc Surg* **20**, 546-56 (1994).
- Shintani S., Murohara T., Ikeda H., Ueno T., Honma T., Katoh A., Sasaki K., Shimada T., Oike Y., Imaizumi T.** Mobilization of endothelial progenitor cells in patients with acute myocardial infarction. *Circulation* **103**, 2776-9 (2001).

- Simionescu M., Simionescu N., Palade G.E.** Segmental differentiations of cell junctions in the vascular endothelium. The microvasculature. *J Cell Biol* **67**, 863-85 (1975).
- Simionescu M., Simionescu N., Palade G.E.** Segmental differentiations of cell junctions in the vascular endothelium. Arteries and veins. *J Cell Biol* **68**, 705-23 (1976a).
- Simionescu N., Simionescu M., Palade G.E.** Recent studies on vascular endothelium. *Ann N Y Acad Sci* **275**, 64-75 (1976b).
- Simionescu N., Simionescu M., Palade G.E.** Structural basis of permeability in sequential segments of the microvasculature of the diaphragm. II. Pathways followed by microperoxidase across the endothelium. *Microvasc Res* **15**, 17-36 (1978).
- Simionescu N.** Cellular aspects of transcapillary exchange. *Physiol Rev* **63**, 1536-79 (1983).
- Sinowatz F.** Die Zelle. In: *Histologie*. 3. Auflage. Deutscher Ärzte-Verlag, Köln, S. 35-93 (2000).
- Sinowatz F., Plendl J., Kolle S.** Protein-carbohydrate interactions during fertilization. *Acta Anat (Basel)* **161**, 196-205. (1998).
- Skalak T.C.** Angiogenesis and microvascular remodeling: a brief history and future roadmap. *Microcirculation* **12**, 47-58 (2005).
- Skalak T.C., Price R.J.** The role of mechanical stresses in microvascular remodeling. *Microcirculation* **3**, 143-65 (1996).
- Smith J.M., Meinkoth J.H., Hochstatter T., Meyers K.M.** Differential distribution of von Willebrand factor in canine vascular endothelium. *Am J Vet Res* **57**, 750-5 (1996).
- Smith M.F., McIntush E.W., Smith G.W.** Mechanisms associated with corpus luteum development. *J Anim Sci* **72**, 1857-72 (1994).
- Soldi R., Mitola S., Strasly M., Defilippi P., Tarone G., Bussolino F.** Role of $\alpha v \beta 3$ integrin in the activation of vascular endothelial growth factor receptor-2. *Embo J* **18**, 882-92. (1999).
- Song S., Ewald A.J., Stallcup W., Werb Z., Bergers G.** PDGFR β (+) perivascular progenitor cells in tumours regulate pericyte differentiation and vascular survival. *Nat Cell Biol* **7**, 870-879 (2005).
- Sopp P., Howard C.J.** Cross-reactivity of monoclonal antibodies to defined human leucocyte differentiation antigens with bovine cells. *Vet Immunol Immunopathol* **56**, 11-25 (1997).
- Spanel-Borowski K.** Diversity of ultrastructure in different phenotypes of cultured microvessel endothelial cells isolated from bovine corpus luteum. *Cell Tissue Res* **266**, 37-49 (1991).
- Spanel-Borowski K., Fenyves A.** The heteromorphology of cultured microvascular endothelial cells. *Arzneimittelforschung* **44**, 385-91 (1994).
- Spanel-Borowski K., Mayerhofer A.** Formation and regression of capillary sprouts in corpora lutea of immature superstimulated golden hamsters. *Acta Anat (Basel)* **128**, 227-35 (1987).

Spanel-Borowski K., Ricken A.M., Kress A., Huber P.R. Isolation of granulosa-like cells from the bovine secretory corpus luteum and their characterization in long-term culture. *Anat Rec* **239**, 269-79 (1994a).

Spanel-Borowski K., Ricken A.M., Patton W.F. Cytokeratin-positive and cytokeratin-negative cultured endothelial cells from bovine aorta and vena cava. *Differentiation* **57**, 225-34 (1994b).

Spanel-Borowski K., Ricken A.M., Saxer M., Huber P.R. Long-term co-culture of bovine granulosa cells with microvascular endothelial cells: effect on cell growth and cell death. *Mol Cell Endocrinol* **104**, 11-9 (1994c).

Spanel-Borowski K., van der Bosch J. Different phenotypes of cultured microvessel endothelial cells obtained from bovine corpus luteum. Study by light microscopy and by scanning electron microscopy (SEM). *Cell Tissue Res* **261**, 35-47 (1990).

St Croix B., Rago C., Velculescu V., Traverso G., Romans K.E., Montgomery E., Lal A., Riggins G.J., Lengauer C., Vogelstein B., Kinzler K.W. Genes expressed in human tumor endothelium. *Science* **289**, 1197-202 (2000).

Stadler K. In vitro Charakterisierung von bovinen Granulosazellen. *Dissertation*. Tierärztliche Fakultät der Ludwig-Maximilians-Universität München (1997).

Steinsiepe K.F., Weibel E.R. [Electron microscopic studies on specific organelles of endothelial cells in the frog (*Rana temporaria*)]. *Z Zellforsch Mikrosk Anat* **108**, 105-26 (1970).

Stephens L.E., Sutherland A.E., Klimanskaya I.V., Andrieux A., Meneses J., Pedersen R.A., Damsky C.H. Deletion of beta 1 integrins in mice results in inner cell mass failure and peri-implantation lethality. *Genes Dev* **9**, 1883-95 (1995).

Sternlicht M.D., Werb Z. How matrix metalloproteinases regulate cell behavior. *Annu Rev Cell Dev Biol* **17**, 463-516 (2001).

Streeter P.R., Berg E.L., Rouse B.T., Bargatze R.F., Butcher E.C. A tissue-specific endothelial cell molecule involved in lymphocyte homing. *Nature* **331**, 41-6 (1988a).

Streeter P.R., Rouse B.T., Butcher E.C. Immunohistologic and functional characterization of a vascular addressin involved in lymphocyte homing into peripheral lymph nodes. *J Cell Biol* **107**, 1853-62 (1988b).

Strehlow K., Werner N., Berweiler J., Link A., Dirnagl U., Priller J., Laufs K., Ghaeni L., Milosevic M., Bohm M., Nickenig G. Estrogen increases bone marrow-derived endothelial progenitor cell production and diminishes neointima formation. *Circulation* **107**, 3059-65 (2003).

Sugawara J., Mitsui-Saito M., Hoshiai T., Hayashi C., Kimura Y., Okamura K. Circulating endothelial progenitor cells during human pregnancy. *J Clin Endocrinol Metab* **90**, 1845-8 (2005).

Sugino N., Kashida S., Takiguchi S., Karube A., Kato H. Expression of vascular endothelial growth factor and its receptors in the human corpus luteum during the menstrual cycle and in early pregnancy. *J Clin Endocrinol Metab* **85**, 3919-24 (2000).

- Takahashi T., Kalka C., Masuda H., Chen D., Silver M., Kearney M., Magner M., Isner J.M., Asahara T.** Ischemia- and cytokine-induced mobilization of bone marrow-derived endothelial progenitor cells for neovascularization. *Nat Med* **5**, 434-8 (1999).
- Tamanini C., De Ambrogi M.** Angiogenesis in developing follicle and corpus luteum. *Reprod Domest Anim* **39**, 206-16 (2004).
- Tepper O.M., Capla J.M., Galiano R.D., Ceradini D.J., Callaghan M.J., Kleinman M.E., Gurtner G.C.** Adult vasculogenesis occurs through in situ recruitment, proliferation, and tubulization of circulating bone marrow-derived cells. *Blood* **105**, 1068-77 (2005).
- Thompson R.D., Wakelin M.W., Larbi K.Y., Dewar A., Asimakopoulos G., Horton M.A., Nakada M.T., Nourshargh S.** Divergent effects of platelet-endothelial cell adhesion molecule-1 and beta 3 integrin blockade on leukocyte transmigration in vivo. *J Immunol* **165**, 426-34 (2000).
- Thorin E., Shatos M.A., Shreeve S.M., Walters C.L., Bevan J.A.** Human vascular endothelium heterogeneity. A comparative study of cerebral and peripheral cultured vascular endothelial cells. *Stroke* **28**, 375-81 (1997).
- Thorin E., Shreeve S.M.** Heterogeneity of vascular endothelial cells in normal and disease states. *Pharmacol Ther* **78**, 155-66 (1998).
- Tian S., Hayes A.J., Metheny-Barlow L.J., Li L.Y.** Stabilization of breast cancer xenograft tumour neovasculature by angiopoietin-1. *Br J Cancer* **86**, 645-51 (2002).
- Tilling T., Engelbertz C., Decker S., Korte D., Huwel S., Galla H.J.** Expression and adhesive properties of basement membrane proteins in cerebral capillary endothelial cell cultures. *Cell Tissue Res* **310**, 19-29 (2002).
- Tilly J.L., Kowalski K.I., Schomberg D.W., Hsueh A.J.** Apoptosis in atretic ovarian follicles is associated with selective decreases in messenger ribonucleic acid transcripts for gonadotropin receptors and cytochrome P450 aromatase. *Endocrinology* **131**, 1670-6 (1992).
- Tintut Y., Alfonso Z., Saini T., Radcliff K., Watson K., Bostrom K., Demer L.L.** Multilineage potential of cells from the artery wall. *Circulation* **108**, 2505-10 (2003).
- Toma J.G., Akhavan M., Fernandes K.J., Barnabe-Heider F., Sadikot A., Kaplan D.R., Miller F.D.** Isolation of multipotent adult stem cells from the dermis of mammalian skin. *Nat Cell Biol* **3**, 778-84 (2001).
- Tomlinson A., Van Vlijmen H., Loesch A., Burnstock G.** An immunohistochemical study of endothelial cell heterogeneity in the rat: observations in "en face" Hautchen preparations. *Cell Tissue Res* **263**, 173-81 (1991).
- Tordjman R., Delaire S., Plouet J., Ting S., Gaulard P., Fichelson S., Romeo P.H., Lemarchandel V.** Erythroblasts are a source of angiogenic factors. *Blood* **97**, 1968-74 (2001).
- Tordjman R., Ortega N., Coulombel L., Plouet J., Romeo P.H., Lemarchandel V.** Neupilin-1 is expressed on bone marrow stromal cells: a novel interaction with hematopoietic cells? *Blood* **94**, 2301-9 (1999).
- Tsuda T., Wang H., Timpl R., Chu M.L.** Fibulin-2 expression marks transformed mesenchymal cells in developing cardiac valves, aortic arch vessels, and coronary vessels. *Dev Dyn* **222**, 89-100 (2001).

- Tuan R.S., Boland G., Tuli R.** Adult mesenchymal stem cells and cell-based tissue engineering. *Arthritis Res Ther* **5**, 32-45 (2003).
- Vailhe B., Vittet D., Feige J.J.** In vitro models of vasculogenesis and angiogenesis. *Lab Invest* **81**, 439-52 (2001).
- Vierck J.L., McNamara J.P., Dodson M.V.** Proliferation and differentiation of progeny of ovine unilocular fat cells (adipofibroblasts). *In Vitro Cell Dev Biol Anim* **32**, 564-72 (1996).
- Vittet D., Prandini M.H., Berthier R., Schweitzer A., Martin-Sisteron H., Uzan G., Dejana E.** Embryonic stem cells differentiate in vitro to endothelial cells through successive maturation steps. *Blood* **88**, 3424-31 (1996).
- Vokes S.A., Krieg P.A.** Endoderm is required for vascular endothelial tube formation, but not for angioblast specification. *Development* **129**, 775-85 (2002).
- Wagner D.D.** The Weibel-Palade body: the storage granule for von Willebrand factor and P-selectin. *Thromb Haemost* **70**, 105-10 (1993).
- Wagner J.E., Verfaillie C.M.** Ex vivo expansion of umbilical cord blood hemopoietic stem and progenitor cells. *Exp Hematol* **32**, 412-3 (2004).
- Wang Z., Cohen K., Shao Y., Mole P., Dombkowski D., Scadden D.T.** Ephrin receptor, EphB4, regulates ES cell differentiation of primitive mammalian hemangioblasts, blood, cardiomyocytes, and blood vessels. *Blood* **103**, 100-9 (2004).
- Warejcka D.J., Harvey R., Taylor B.J., Young H.E., Lucas P.A.** A population of cells isolated from rat heart capable of differentiating into several mesodermal phenotypes. *J Surg Res* **62**, 233-42 (1996).
- Weibel E.R., Palade G.E.** New Cytoplasmic Components in Arterial Endothelia. *J Cell Biol* **23**, 101-12 (1964).
- Weiss M.J., Orkin S.H.** In vitro differentiation of murine embryonic stem cells. New approaches to old problems. *J Clin Invest* **97**, 591-5 (1996).
- Welt K., Schippel K., Mironov V.A., Mironov A.A., Alimov G.A., Bobrik, II, Banin V.V., Karaganov J.L.** [Vascular endothelium (review). I. General morphology. 2A: histogenesis of the vascular endothelium]. *Gegenbaurs Morphol Jahrb* **136**, 163-99 (1990).
- Wilting J., Christ B.** Embryonic angiogenesis: a review. *Naturwissenschaften* **83**, 153-64 (1996).
- Wobus A.M.** Potential of embryonic stem cells. *Mol Aspects Med* **22**, 149-64 (2001).
- Wong C.W., Wiedle G., Ballestrem C., Wehrle-Haller B., Etteldorf S., Bruckner M., Engelhardt B., Gisler R.H., Imhof B.A.** PECAM-1/CD31 trans-homophilic binding at the intercellular junctions is independent of its cytoplasmic domain; evidence for heterophilic interaction with integrin alphavbeta3 in Cis. *Mol Biol Cell* **11**, 3109-21 (2000).
- Wood H.B., May G., Healy L., Enver T., Morriss-Kay G.M.** CD34 expression patterns during early mouse development are related to modes of blood vessel formation and reveal additional sites of hematopoiesis. *Blood* **90**, 2300-11 (1997).

- Wrobel K.H., Suss F.** Identification and temporospatial distribution of bovine primordial germ cells prior to gonadal sexual differentiation. *Anat Embryol (Berl)* **197**, 451-67 (1998).
- Wulff C., Wiegand S.J., Saunders P.T., Scobie G.A., Fraser H.M.** Angiogenesis during follicular development in the primate and its inhibition by treatment with truncated Flt-1-Fc (vascular endothelial growth factor Trap(A40)). *Endocrinology* **142**, 3244-54 (2001).
- Xu J., Brooks P.C.** Extracellular Matrix in the Regulation of Angiogenesis. In: *Assembly of the vasculature and its regulation*. 1. Auflage. Birkhäuser Verlag, Boston, S. 55-96 (2001).
- Yamada S., Fujiwara H., Honda T., Higuchi T., Nakayama T., Inoue T., Maeda M., Fujii S.** Human granulosa cells express integrin alpha2 and collagen type IV: possible involvement of collagen type IV in granulosa cell luteinization. *Mol Hum Reprod* **5**, 607-17 (1999).
- Yamamoto K., de Waard V., Fearn C., Loskutoff D.J.** Tissue distribution and regulation of murine von Willebrand factor gene expression in vivo. *Blood* **92**, 2791-801 (1998).
- Yamamoto K., Loskutoff D.J.** Fibrin deposition in tissues from endotoxin-treated mice correlates with decreases in the expression of urokinase-type but not tissue-type plasminogen activator. *J Clin Invest* **97**, 2440-51 (1996).
- Yancopoulos G.D., Davis S., Gale N.W., Rudge J.S., Wiegand S.J., Holash J.** Vascular-specific growth factors and blood vessel formation. *Nature* **407**, 242-8 (2000).
- Yang S., Graham J., Kahn J.W., Schwartz E.A., Gerritsen M.E.** Functional roles for PECAM-1 (CD31) and VE-cadherin (CD144) in tube assembly and lumen formation in three-dimensional collagen gels. *Am J Pathol* **155**, 887-95 (1999).
- Yin A.H., Miraglia S., Zanjani E.D., Almeida-Porada G., Ogawa M., Leary A.G., Olweus J., Kearney J., Buck D.W.** AC133, a novel marker for human hematopoietic stem and progenitor cells. *Blood* **90**, 5002-12 (1997).
- Yoder M.C.** Blood cell progenitors: insights into the properties of stem cells. *Anat Rec A Discov Mol Cell Evol Biol* **276**, 66-74 (2004).
- Yokomizo T., Ogawa M., Osato M., Kanno T., Yoshida H., Fujimoto T., Fraser S., Nishikawa S., Okada H., Satake M., Noda T., Ito Y.** Requirement of Runx1/AML1/PEBP2alphaB for the generation of haematopoietic cells from endothelial cells. *Genes Cells* **6**, 13-23 (2001).
- Yoshida H., Takakura N., Hirashima M., Kataoka H., Tsuchida K., Nishikawa S.** Hematopoietic tissues, as a playground of receptor tyrosine kinases of the PDGF-receptor family. *Dev Comp Immunol* **22**, 321-32 (1998).
- Young H.E., Black A.C., Jr.** Adult stem cells. *Anat Rec A Discov Mol Cell Evol Biol* **276**, 75-102 (2004).
- Young H.E., Duplaa C., Romero-Ramos M., Chesselet M.F., Vourc'h P., Yost M.J., Ericson K., Terracio L., Asahara T., Masuda H., Tamura-Ninomiya S., Detmer K., Bray R.A., Steele T.A., Hixson D., el-Kalay M., Tobin B.W., Russ R.D., Horst M.N., Floyd J.A., Henson N.L., Hawkins K.C., Groom J., Parikh A., Blake L., Bland L.J., Thompson A.J., Kirincich A., Moreau C., Hudson J., Bowyer F.P., 3rd, Lin T.J., Black A.C., Jr.** Adult reserve stem cells and their potential for tissue engineering. *Cell Biochem Biophys* **40**, 1-80 (2004).

Zhao Y., Glesne D., Huberman E. A human peripheral blood monocyte-derived subset acts as pluripotent stem cells. *Proc Natl Acad Sci U S A* **100**, 2426-31 (2003).

Zheng J., Redmer D.A., Reynolds L.P. Vascular development and heparin-binding growth factors in the bovine corpus luteum at several stages of the estrous cycle. *Biol Reprod* **49**, 1177-89 (1993).

Ziegler B.L., Valtieri M., Porada G.A., De Maria R., Muller R., Masella B., Gabbianelli M., Casella I., Pelosi E., Bock T., Zanjani E.D., Peschle C. KDR receptor: a key marker defining hematopoietic stem cells. *Science* **285**, 1553-8 (1999).

Zimmermann R.C., Hartman T., Bohlen P., Sauer M.V., Kitajewski J. Preovulatory treatment of mice with anti-VEGF receptor 2 antibody inhibits angiogenesis in corpora lutea. *Microvasc Res* **62**, 15-25 (2001).