
Publication List

Markus Hoenicka

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Peer-reviewed Publications

1. Hoenicka M., Wiedemann L., Puehler T., Hirt S., Birnbaum D.E., and Schmid C. (2010) Effects of Shear Forces and Pressure on Blood Vessel Function and Metabolism in a Perfusion Bioreactor. *Ann.Biomed.Eng.* (in press)
2. Hoenicka M., Schrammel S., Jacobs V.R., Huber G., Schmid C., and Birnbaum D.E. (2009) Tissue Engineering of Small Caliber Vessel Grafts from Human Umbilical Veins. *IFMBE Proceedings* **25/X**, 38-41
3. Hoenicka M., Wiedemann L., Schrammel S., Schmid C., and Birnbaum D.E. (2009) Metabolic Requirements of Blood Vessels in a Perfusion Bioreactor. *IFMBE Proceedings* **25/IV**, 238-241
4. Hoenicka M., Jacobs V.R., Huber G., Schmid F., and Birnbaum D.E. (2008) Advantages of human umbilical vein scaffolds derived from cesarean section vs. vaginal delivery for vascular tissue engineering. *Biomaterials* **29**, 1075-1084
5. Hoenicka M. and Schmid C. (2008) Cardiovascular effects of modulators of soluble guanylyl cyclase activity. *Cardiovasc.Hematol.Agents Med.Chem.* **6**, 287-301
6. Hoenicka M., Lehle K., Jacobs V.R., Schmid F.X., and Birnbaum D.E. (2007) Properties of the human umbilical vein as a living scaffold for a tissue-engineered vessel graft. *Tissue Eng.* **13**, 219-229
7. Lehle K., Hoenicka M., Jacobs V.R., Schmid F.X., and Birnbaum D.E. (2006) Identification and reduction of cryoinjury in endothelial cells: a first step towards establishing a cell bank for vascular tissue engineering. *Tissue Eng.* **12**, 3439-3447
8. Schmid F., Vudattu N., Flerchinger B., Hilker M., Eissner G., Hoenicka M., Holler E., and Birnbaum D.E. (2006) Endothelial apoptosis and circulating endothelial cells after bypass grafting with and without cardiopulmonary bypass. *Eur.J.Cardiothorac.Surg.* **29**, 496-500
9. Jacobs V.R., Niemeyer M., Gottschalk N., Schneider K.T.M., Kiechle M., Oostendorp R.A.J., Peschel C., Hoenicka M., Lehle K., Birnbaum D.E., Meyer T.P.H., Rapp S., Burkhart J., Aigner J., Eblenkamp M., and Wintermantel E. (2005) Das STEMMAT-Projekt als Teil der Gesundheitsinitiative BayernAktiv: Adulte Stammzellen aus Nabelschnur und -blut als Alternative zur embryonalen Stammzellforschung [The STEMMAT project as part of the health initiative BayernAktiv: adult stem cells from umbilical cord and cord blood as alternative to embryonic stem cell research]. *Zentralbl.Gynakol.* **127**, 368-372
10. Lehle K., Hoenicka M., Jacobs V.R., Schmid F.X., and Birnbaum D.E. (2005) Cryopreservation of human endothelial cells for vascular tissue engineering. *Cryobiology* **50**, 154-161

11. Becker E., Schmidt P.M., Schramm M., Schröder H., Walter U., Hoenicka M., Gerzer R., and Stasch J. (2000) The vasodilator-stimulated phosphoprotein (VASP): target of YC-1 and nitric oxide effects in human and rat platelets. *J.Cardiovasc.Pharmacol.* **35**, 390-397
12. Becker E., Wunder F., Kast R., Robyr C., Hoenicka M., Gerzer R., Schröder H., and Stasch J. (1999) Generation and characterization of a stable soluble guanylate cyclase-overexpressing CHO cell line. *Nitric Oxide* **3**, 55-66
13. Hoenicka M., Becker E., Apeler H., Sirichoke T., Schröder H., Gerzer R., and Stasch J. (1999) Purified soluble guanylyl cyclase expressed in a baculovirus/Sf9 system: stimulation by YC-1, nitric oxide, and carbon monoxide. *J.Mol.Med.* **77**, 14-23

Invited Publications

1. Jacobs V.R., Niemeyer M., Höpfner C., Schneider K.T.M., Kiechle M., Oostendorp R.A.J., Peschel C., Hönicka M., Lehle K., Birnbaum D.E., Meyer T.P.H., Rapp S., Burkhart J., Aigner J., Eblenkamp M., and Wintermantel E. (2004) Das STEMMAT-Projekt. *Zellbiologie.* **1**, 16-18
2. Hönicka M. and Gerzer R. (1997) Lösliche Guanylylzyklasen. Schlüsselenzyme zum therapeutischen Einsatz des Prinzips NO [Soluble guanyl cyclases. Key enzymes for therapeutic applications of the NO principle]. *Internist.(Berl)* **38**, 427-437

Invited Oral Presentations

1. Hoenicka M. (2008) Building Vessels. *ESC Congress Munich*

Abstracts and Conference Papers

1. Hoenicka M., Schrammel S., Huber G., Bronger H., Schmid C., and Birnbaum D.E. (2010) Small-caliber Vessel Grafts Made from Human Umbilical Veins, in *TERMIS-EU 2010 Meeting*. Tissue Engineering & Regenerative Medicine International Society, Baltimore,MD
2. Hoenicka M., Wiedemann L., Schrammel S., Klose A., Schmid C., and Birnbaum D.E. (2010) Influence of Shear Forces and Pressure on Vessel Wall Metabolism, in *TERMIS-EU 2010 Meeting*. Tissue Engineering & Regenerative Medicine International Society, Baltimore,MD
3. Hoenicka M., Wiedemann L., Puehler T., Hirt S., and Schmid C. (2009) Metabolic requirements in vascular tissue engineering. *Thorac.Cardiovasc.Surg.* **56**, P88
4. Hoenicka M., Lehle K., Jacobs V.R., Dendorfer S., Kistorz A., Schmid F., and Birnbaum D.E. (2007) Mechanical and seeding properties of human umbilical vein - a potential scaffold for a tissue-engineered vessel graft. *Thorac.Cardiovasc.Surg.* **55**, P_37
5. Hoenicka M., Lehle K., Jacobs V.R., Hilker M., Jückstock H., Schmid F., and Birnbaum D.E. (2006) Effect of Cryopreservation on Mechanical and Functional Properties of Human Umbilical Vein, a Potential Scaffold for Tissue Engineering. *Cytotherapy* **8**, 48
6. Hoenicka M., Lehle K., Jacobs V.R., Rupperecht L., Göbölös L., Schmid F., and Birnbaum D.E. (2006) Effect of Cryopreservation on Viability and Function of Human Umbilical Vein - a potential Scaffold for a Tissue-Engineered Vessel Graft. *Thorac.Cardiovasc.Surg.* **54**, PP_4

7. Gottschalk N., Jacobs V.R., Niemeyer M., Oostendorp R.A.J., Hönicka M., Lehle K., Meyer T.P.H., Burkhart J., Eblenkamp M., Aigner J., Schneider K.T.M., Kiechle M., Peschel C., Birnbaum D.E., Rapp S., and Wintermantel E. (2005) Umbilical Cord Blood Donation for Research vs. Private Banking: Does Commercial Blood Banking Reduce Number of Samples for the STEMMAT-Project? *Int.J.Artif.Organs* **28**, 377-378
8. Hoenicka M., Lehle K., Kobuch R., Winkler R., and Birnbaum D.E. (2005) Effect of Cryopreservation on Viability and Function of Human Umbilical Vein - a potential Resource for Vascular Tissue Engineering. *4th Annual Meeting of the European Tissue Engineering Society LXVIII*
9. Niemeyer M., Oostendorp R.A.J., Hönicka M., Meyer T.P.H., Eblenkamp M., Jacobs V.R., Gottschalk N., Boelsterl M., Lehle K., Burkhart J., Aigner J., Schneider K.T.M., Kiechle M., Peschel C., Birnbaum D.E., Rapp S., and Wintermantel E. (2005) The STEMMAT-Project: Efficient Derivation and Cryopreservation of Human Hematopoietic, Endothelial, and Mesenchymal Stem Cells from Umbilical Cord and Blood. *Int.J.Artif.Organs* **28**, 401-402
10. Jacobs V.R., Niemeyer M., Höpfner C., Schneider K.T.M., Kiechle M., Oostendorp R.A.J., Peschel C., Hönicka M., Lehle K., Birnbaum D.E., Meyer T.P.H., Rapp S., Burkhart J., Aigner J., Eblenkamp M., and Wintermantel E. (2004) The STEMMAT-Project: Adult Stem Cell Research as Ethical Alternative to Controversial Embryonic Stem Cell Research. *Cytotherapy* **6**, 281
11. Jacobs V.R., Niemeyer M., Strotmann H., Schneider K.T.M., Kiechle M., Oostendorp R.A.J., Peschel C., Hönicka M., Lehle K., Birnbaum D.E., Meyer T.P.H., Rapp S., Burkhart J., Aigner J., Eblenkamp M., and Wintermantel E. (2003) Problems Encountered During Implementation of a Logistic Concept for Adult Stem Cell Research Project. *Int.J.Artif.Organs* **26**, 863
12. Jacobs V.R., Schneider K.T.M., Kiechle M., Oostendorp R.A.J., Peschel C., Lehle K., Hönicka M., Birnbaum D.E., Meyer T.P.H., Rapp S., Burkhart J., Aigner J., and Wintermantel E. (2003) Das STEMMAT-Projekt: Grundlagenforschung mit adulten Stammzellen aus Nabelschnur und -Blut. *Geburtshilfe und Frauenheilkunde* **63**, 892-893
13. Jacobs V.R., Strotmann H., Niemeyer M., Schneider K.T.M., Kiechle M., Oostendorp R.A.J., Peschel C., Hönicka M., Lehle K., Birnbaum D.E., Meyer T.P.H., Rapp S., Burkhart J., Aigner J., Eblenkamp M., and Wintermantel E. (2003) The STEMMAT-Project as Part of the BayernAktiv Health Initiative: A Multi-Center Project for Basic Research with Adult Stem Cells from Umbilical Cord and Cord Blood. *Int.J.Artif.Organs* **26**, 829
14. Niemeyer M., Strotmann H., Schneider K.T.M., Kiechle M., Oostendorp R.A.J., Peschel C., Hönicka M., Lehle K., Birnbaum D.E., Meyer T.P.H., Rapp S., Burkhart J., Aigner J., Eblenkamp M., Wintermantel E., and Jacobs V.R. (2003) Adult Stem Cell Research: Perspective of the STEMMAT-Project. *Int.J.Artif.Organs* **26**, 862
15. Becker E., Wunder F., Schroeder H., Walter U., Hoenicka M., Gerzer R., and Stasch J. (2000) sGC stimulation by YC-1 on purified enzyme, sGC CHO cell line and platelets: a new pharmacological principle? *Naunyn Schmiedeberg's Arch.Pharmacol.* **361**, 342
16. Becker E., Schmidt P.M., Schroeder H., Walter U., Hoenicka M., Gerzer R., and Stasch J. (1999) VASP: a mediator of YC-1 and NO effects in human and rat platelets. *Acta Physiol.Scand.* **167**, 167
17. Muelsch A., Selemo E., Fichtlscherer B., and Hoenicka M. (1999) Redox regulation of soluble guanylyl cyclase. *Circulation* **100**, 264
18. Becker E., Wunder F., Kast R., Robyr C., Hoenicka M., Gerzer R., Schroeder H., and Stasch J. (1998) Characterization of a new stable soluble guanylate cyclase overexpressing CHO cell line by NO donors and YC-1. *Nitric Oxide* **2**, 309
19. Hoenicka M., Becker E., Apeler H., Sirichoke T., Schröder H., Gerzer R., and Stasch J. (1998) Purified soluble guanylyl cyclase expressed in a baculovirus/Sf9 system: Stimulation by YC-1, NO, and CO. *Nitric Oxide* **2**, 81

20. Hoenicka M., Becker E., Apeler H., Sirichoke T., Schroeder H., Gerzer R., and Stasch J. (1998) Recombinant soluble guanylyl cyclase expressed in a baculovirus system: Characterization by YC-1, NO and CO. *Nitric Oxide* **2**, 309
21. Hönicka M., Spahr R., Feelisch M., and Gerzer R. (1994) Organic nitrate metabolism and nitric oxide release in vascular tissue and in platelets. *Eur.J.Clin.Pharmacol.* **47**, A102
22. Hönicka M., David S., Spahr R., Feelisch M., and Gerzer R. (1993) Characterization of the glyceryl trinitrate converting activity of isolated bovine aorta microsomes - Influence of heat pretreatment. *Endothelium* **1**, s36

Thesis

1. Hönicka M. (1995) *Untersuchungen zur NO-Freisetzung aus Organischen Nitraten im vaskulären System*, Rheinisch-Westfälische Technische Hochschule, Aachen