

## Tabellarischer Lebenslauf



**Name, Vorname:** Hornig, Burkhard

**Akademischer Grad:** Prof. Dr. med.

**Geburtsdatum:** 4.12.1964

**Familienstand:** verheiratet seit 1999  
3 Kinder (Christian geb. 13.07.00; Justus geb. 27.05.02,  
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## **Werdegang:**

- 1971-74** Primarschule (St. Friedolinschule Lörrach-Stetten)
- 1975-1984** Hebel-Gymnasium Lörrach: Matura
- 1984/85** Militärdienst
- 1985-1991** Medizinstudium an der Albert-Ludwigs-Universität  
Freiburg im Breisgau
- 1990/1991** Wahlstudienjahr:  
Neurologie: Universitätsklinik Freiburg (Prof. Lücking)  
Chirurgie: Spital Samedan (Dr. Fenner)  
Medizin: PennState University, USA  
(Cardiology, Emergency Room, Gastroenterology )
- 1992** Promotion (Über die Endothelfunktion von peripheren  
Leitungs- und Widerstandsgefäßen bei Patienten mit  
chronische Herzinsuffizienz)
- 1992-1996** Wissenschaftlicher Assistent, Medizinischen Klinik der  
Albert-Ludwigs Universität Freiburg i.Br.  
Kardiologie und Angiologie (Prof. Dr. Just)  
Nephrologie (Prof. Dr. Schollmeyer)  
Onkologie (Prof. Dr. Mertelsmann)  
Gastroenterologie (Prof. Dr. Gerok)
- 1996-1998** Wissenschaftlicher Assistent an der Abteilung Kardiologie  
und Angiologie der Medizinischen Hochschule Hannover  
(Ärztlicher Direktor Prof. Dr. H. Drexler)

- 1998** Facharzt für Innere Medizin; Ernennung zum Oberarzt
- 2000** Habilitation Thema: Endothelfunktion bei Patienten mit chronischer Herzinsuffizienz: pathophysiologische Mechanismen und therapeutische Optionen
- 2001** Facharzt für Kardiologie
- 2001/2002** Ausbildung: Qualitätsmanagement in der Medizin
- 2002** Ernennung zum Stv. Ärztl. Direktor, Abteilung Kardiologie und Angiologie, Medizinische Hochschule Hannover
- 2003** Ernennung zum Ausserplanmässigen Professor
- 6/2004 -2/2013** Leitender Arzt und Leiter Kardiologie, seit 1/2013 Chefarzt Kardiologie, St. Claraspital Basel
- Seit 3/2013** Eröffnung Herzpraxis Warteckhof, Grenzacherstr. 62, 4058 Basel  
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**Wissenschaftliche Auszeichnungen:**

**1999**

**„Rudolf-Schoen-Preis“**

**Preussag AG, Hannover**

**2001**

**„Werner-Forßmann-Preis“**

**Medizinische Fakultät der Ruhr-Universität Bochum**



## **Ausgewählte Publikationen**

- 1) **Hornig B, Maier V, Drexler H. Physical training improves endothelial function in patients with chronic heart failure. *Circulation* 1996;93:210-214**
  
- 2) **Hornig B, Kohler C, Drexler H. Role of bradykinin in mediating vascular effects of ACE-inhibitors in humans. *Circulation* 1997;95:1115-1118**
  
- 3) **Solzbach U, Hornig B, Jeserich M, Just H. Vitamin C improves endothelial dysfunction of epicardial coronary arteries in patients with essential hypertension. *Circulation* 1997;96:1513-1519**
  
- 4) **Hornig B, Arakawa N, Kohler C, Drexler H. Vitamin C improves endothelial function in patients with chronic heart failure. *Circulation* 1998;97:363-368**
  
- 5) **Hornig B, Arakawa N, Haussmann D, Drexler H: Differential effects of quinaprilat and enalaprilat on endothelial function of conduit arteries in patients with chronic heart failure. *Circulation* 1998;98:2842-48**
  
- 6) **Landmesser U, Merten R, Spiekermann S, Büttner K, Drexler H, Hornig B: Vascular extracellular superoxide dismutase activity in patients with coronary artery disease; relation to endothelium-mediated vasodilation. *Circulation* 2000;101:2264-2270**
  
- 7) **Hornig B, Landmesser U, Kohler C, Ahlersmann D, Spiekermann S, Christoph A, Tatge H, Drexler H: Comparative effect of ACE-inhibition and angiotensin II-type 1-receptor antagonism on bioavailability of nitric oxide in patients with coronary artery disease – role of superoxide dismutase. *Circulation* 2001;103:799-805**
  
- 8) **Landmesser U, Spiekermann S, Dikalov S, Tatge H, Wilke R, Kohler C, Harrison DG, Hornig B, Drexler H: Vascular oxidative stress and endothelial dysfunction in**

patients with chronic heart failure: role of xanthine-oxidase and extracellular superoxide dismutase. *Circulation* 2002;106:3073-78

9) Spiekermann S, Landmesser U, Dikalov S, Brecht M, Gamez G, Tatge H, Reepschläger N, Hornig B, Drexler H, Harrison DG: Electron spin resonance characterization of vascular Xanthine- and NAD(P)H-oxidase-activity in patients with coronary artery disease: relation to endothelium-dependent vasodilation. *Circulation* 2003;107:1383-1389

10) Hornig B, Kohler C, Schlink D, Tatge H, Drexler H: AT1-receptor antagonism improves endothelial function in coronary artery disease by a bradykinin/B<sub>2</sub> receptor dependent mechanism. *Hypertension* 2003;41:1092-1095

11) Wollert KC, ..., Hornig B, ..., Drexler H: Intracoronary autologous bone-marrow transfer after myocard infarction: the BOOST randomized controlled clinical trial. *Lancet* 2004;364:141-8

## **Publikationsverzeichnis**

- 1) Drexler H, Hayoz D, Münzel T, Hornig B, Just H, Brunner HR, Zelis R. Endothelial function in chronic congestive heart failure. Am J Cardiol 1992;69:1596-1601
- 2) Zelis R, Hayoz D, Drexler H, Hornig B, Zeiher AM, Just H, Brunner HR. Arterial dilatory reserve in congestive heart failure. J Hypertens 1992;10(6):S65-7
- 3) Hayoz D, Drexler H, Münzel T, Hornig B, Zeiher A, Just H, Brunner HR, Zelis R. Flow-mediated arteriolar dilation is abnormal in congestive heart failure. Circulation 1993;87(suppl VII):VII-92-VII-96
- 4) Münzel T, Hayoz D, Hornig B, Kurz S, Just H, Zelis R, Brunner HR, Drexler H. Increased vascular sensitivity to nitroglycerin in patients with hypercholesterolemia and peripheral endothelial dysfunction. Dtsch Med Wschr 1994;119:1065-1070
- 5) Jeserich M, Pape L, Just H, Hornig B, Kupfer M, Münzel T, Lohmann A, Olschewski M, Drexler H. Effect of long term angiotensin converting enzyme-inhibition on vascular function in patients with chronic heart failure. Am J Cardiol 1995;76:1079-82
- 6) Schieffer B, Wollert K, Berchtold M, Saal K, Schieffer E, Hornig B, Riede UN, Drexler H. Development and prevention of skeletal muscle structural alteration after experimental myocardial infarction. Am J Physiol 1995;269:H1507-1513
- 7) Drexler H, Kurz S, Jeserich M, Münzel T, Hornig B. Effect of angiotensin-converting enzyme inhibition on endothelial function in patients with chronic heart failure. Am J Cardiol 1995;76:13E-18E



- 8) Hornig B, Maier V, Drexler H. Physical training improves endothelial function in patients with chronic heart failure. *Circulation* 1996;93:210-214
  
- 9) Drexler H, Hornig B. Importance of endothelial function in chronic heart failure. *J Cardiovasc Pharm* 1996;27(suppl. 2):S9-S12
  
- 10) Hornig B, Drexler H. Physical training and endothelial function in patients with chronic heart failure. *Circulation* 1996;94:2988-2989
  
- 11) Hornig B, Kohler C, Drexler H. Role of bradykinin in mediating vascular effects of ACE-inhibitors in humans. *Circulation* 1997;95:1115-1118
  
- 12) Hornig B, Drexler H. Endothelial function and bradykinin in humans. *Drugs* 1997;54(suppl. 5):42-47
  
- 13) Solzbach U, Hornig B, Jeserich M, Just H. Vitamin C improves endothelial dysfunction of epicardial coronary arteries in patients with essential hypertension. *Circulation* 1997;96:1513-1519
  
- 14) Hornig B, Arakawa N, Kohler C, Drexler H. Vitamin C improves endothelial function in patients with chronic heart failure. *Circulation* 1998;97:363-368
  
- 15) Hornig B, Arakawa N, Drexler H: Effects of ACE-inhibition on endothelial function in patients with chronic heart failure. *Eur Heart J* 1998;19(Suppl. G):G48-G53
  
- 16) Hornig B, Arakawa N, Haussmann D, Drexler H: Differential effects of quinaprilat and enalaprilat on endothelial function of conduit arteries in patients with chronic heart failure. *Circulation* 1998;98:2842-48

- 17) Drexler H, Hornig B: Endothelial dysfunction in human disease. *J of Molecular and Cellular Cardiology* 1999;31:51-60
- 18) Hornig B, Drexler H: The blood vessel in heart failure: vascular failure also ? in „Heart failure in clinical practice“ second edition 1999; Martin Dunitz Publishers; London
- 19) Landmesser U, Merten R, Spiekermann S, Büttner K, Drexler H, Hornig B: Vascular extracellular superoxide dismutase activity in patients with coronary artery disease; relation to endothelium-mediated vasodilation. *Circulation* 2000;101:2264-2270
- 20) Drexler H, Haller H, Hornig B, Landmesser U: Endothelfunktion bei kardiovaskulären Erkrankungen; klinische Bedeutung und therapeutische Implikationen. Unimed Verlag, Bremen 2000
- 21) Landmesser U, Hornig B, Drexler H: Endothelial dysfunction in hypercholesterolemia: mechanisms, pathophysiological importance and therapeutic interventions. *Seminars in Thrombosis and Hemostasis* 2000;26:529-38
- 22) Hornig B, Landmesser U, Kohler C, Ahlersmann D, Spiekermann S, Christoph A, Tatge H, Drexler H: Comparative effect of ACE-inhibition and angiotensin II-type 1-receptor antagonism on bioavailability of nitric oxide in patients with coronary artery disease – role of superoxide dismutase. *Circulation* 2001;103:799-805
- 23) Drexler H and Hornig B: Angiotensin II-type 1 receptor blockade and endothelium-dependent vasodilation. *Receptors in Cardiovascular Disease* 2001;8(2):1-5
- 24) Hornig B, Drexler H: Reversal of endothelial function in humans. *Coronary artery disease* 2001;12:463-473

- 25) Dzau V, ..., Hornig B, et al.: The relevance of tissue angiotensin-converting enzyme: manifestation in mechanistic and endpoint data. *Am J Cardiol* 2001;88(suppl):1L-20L
- 26) Hornig B, Drexler H: Steps ahead in the non-invasive testing of vascular function. *J Hypertension* 2002;20:1697-98
- 27) Landmesser U, Spiekermann S, Dikalov S, Tatge H, Wilke R, Kohler C, Harrison DG, Hornig B, Drexler H: Vascular oxidative stress and endothelial dysfunction in patients with chronic heart failure: role of xanthine-oxidase and extracellular superoxide dismutase. *Circulation* 2002;106:3073-78
- 28) Dzau V, ..., Hornig B et al.: Pathophysiologic and Therapeutic importance of Tissue ACE: A consensus report. *Cardiovasc Drugs Ther* 2002;16:149-160
- 29) Hornig B: Vitamins, antioxidants and endothelial function in coronary artery disease. *Cardiovasc Drugs and Therapy* 2002;16(5):401-409
- 30) Sydow K, Schwedhelm E, Arakawa N, Bode-Böger S, Tsikas D, Hornig B, Frölich JC, Böger RH: ADMA and oxidative stress are responsible for endothelial dysfunction in hyperhomocysteinemia: effects of L-arginine and B vitamins. *Cardiovasc Res* 2003;57(1):244-252
- 31) Spiekermann S, Landmesser U, Dikalov S, Brecht M, Gamez G, Tatge H, Reepschläger N, Hornig B, Drexler H, Harrison DG: Electron spin resonance characterization of vascular Xanthine- and NAD(P)H-oxidase-activity in patients with coronary artery disease: relation to endothelium-dependent vasodilation. *Circulation* 2003;107:1383-1389
- 32) Schindler T, Hornig B, Buser PT, Olschewski M, Magosaki N, Pfisterer M, Nitzsche EU, Solzbach U, Just H: Prognostic value of abnormal vasoreactivity of epicardial coronary arteries to sympathetic stimulation in patients with normal coronary angiograms. *Ather Thromb Vasc Biol (ATVB)* 2003;23:495-501

- 33) Hornig B, Kohler C, Schlink D, Tatge H, Drexler H: AT1-receptor antagonism improves endothelial function in coronary artery disease by a bradykinin/B<sub>2</sub> receptor dependent mechanism. *Hypertension* 2003;41:1092-1095
- 34) Hornig B, Drexler H: Role of the peripheral circulation and endothelial cell dysfunction. Chapter 7 in: *Heart Failure: A Companion to Braunwald's Heart Disease*. W.B. Saunders, Mosby, Churchill Livingstone 2003
- 35) Harrison D, Griendling KK, Landmesser U, Hornig B, Drexler H: Role of oxidative stress in atherosclerosis. *Am J Cardiol*. 2003 Feb 6;91(3A):7A-11A.
- 36) Landmesser U, Hornig B, Drexler H: Endothelial function: a critical determinant in atherosclerosis? *Circulation* 2004;109(21Suppl 1):II27-33
- 37) Wollert KC, ..., Hornig B, ..., Drexler H: Intracoronary autologous bone-marrow transfer after myocardial infarction: the BOOST randomized controlled clinical trial. *Lancet* 2004;364:141-8
- 38) Sydow K, Hornig B, Arakawa N, Bode-Boger SM, Tsikas D, Munzel T, Boger RH. Endothelial dysfunction in patients with peripheral arterial disease and chronic hyperhomocysteinemia: potential role of ADMA. *Vasc Med*. 2004 May;9(2):93-101
- 39) Landmesser U, Engberding N, Bahlmann FH, Schaefer A, Wiencke A, Heineke A, Spiekermann S, Hilfiker-Kleiner D, Templin C, Kotlarz D, Mueller M, Fuchs M, Hornig B, Haller H, Drexler H. Statin-induced improvement of endothelial progenitor cell mobilization, myocardial neovascularization, left ventricular function, and survival after experimental myocardial infarction requires endothelial nitric oxide synthase. *Circulation*. 2004 Oct 5;110(14):1933-9.
- 40) Engberding N, Spiekermann S, Schaefer A, Heineke A, Wiencke A, Muller M, Fuchs M, Hilfiker-Kleiner D, Hornig B, Drexler H, Landmesser U. Allopurinol attenuates left ventricular remodeling and dysfunction after experimental myocardial infarction: a new

**action for an old drug?**

**Circulation. 2004 Oct 12;110(15):2175-9**

**41) Meyer GP, Laudenberg B, Hausmann D, Mugge A, Cremer J, Hornig B, Weiss T, Hecker H, Haverich A, Drexler H, Schaefer A. Transthoracic Doppler validation in mammary artery grafts after minimal invasive direct coronary artery bypass operation. J Am Soc Echocardiogr. 2004 Sep;17(9):954-61**

**42) B. Hornig: Denkanstoss: Stammzelltherapie beim akuten Myokardinfarkt; fact or fiction? In Lehrbuch Zerkowski HR und Baumann G, Herzkut Medizin, 2. Auflage 2006; Steinkopff Verlag Darmstadt (ISBN 3-7985-1505-0)**

**43) Endothelial dysfunction in patients with chronic heart failure is independently associated with increased incidence of hospitalization, cardiac transplantation, or death. Fischer D, Rossa S, Landmesser U, Spiekermann S, Engberding N, Hornig B, Drexler H. Eur Heart J. 2005 Jan;26(1):65-9**

**44) □ Endothelial vasodilatory cannabinoid receptor in the human pulmonary artery: a future option in the therapy of pulmonary hypertension? Hornig B. J Hypertens. 2007 Nov;25(11):2202-3**

**45) Transcatheter closure of patent foramen ovale in patients with paradoxical embolism. Procedural and follow-up results after implantation of the Starflex occluder device with conjunctive intensified anticoagulation regimen. Fischer D, Fuchs M, Schaefer A, Schieffer B, Jategaonkar S, Hornig B, Drexler H, Meyer GP. J Interv Cardiol. 2008 Apr;21(2):183-9**

**46) Drug-eluting or bare-metal stents for large coronary vessel stenting? The BASKET-PROVE (PROspective Validation Examination) trial: study protocol and design. Pfisterer M, Bertel O, Bonetti PO, Brunner-La Rocca HP, Eberli FR, Erne P, Galatius S, Hornig B, Kiowski W, Pachinger O, Pedrazzini G, Rickli H, De Servi S, Kaiser C; BASKET-PROVE Investigators. Am Heart J. 2008 Apr;155(4):609-14**

**47) Coronary heart disease: conservative instead of invasive therapy? Endothelial dysfunction: myth or reality?. Hornig B, Kohler C. *Kardiovaskuläre Medizin* 2008;11(7-8):237-245**

**48) Eprosartan in the primary prevention of cardiac allograft vascular disease: a double-blind prospectively randomized study using intravascular ultrasound. Pethig K, Hornig B, Bara C, Schieffer B, Haverich A, Sachse A. *J Int Med Res.* 2008 Sep-Oct;36(5):1022-31**

**49) BNP-guided vs symptom-guided heart failure therapy: the Trial of Intensified vs Standard Medical Therapy in Elderly Patients With Congestive Heart Failure (TIME-CHF) randomized trial. Pfisterer M, Buser P, Rickli H, Gutmann M, Erne P, Rickenbacher P, Vuillomenet A, Jeker U, Dubach P, Beer H, Yoon SI, Suter T, Osterhues HH, Schieber MM, Hilti P, Schindler R, Brunner-La Rocca HP; TIME-CHF Investigators. *JAMA.* 2009 Jan 28;301(4):383-92.**

**50) Drug-Eluting versus Bare-Metal Stents in Large Coronary Arteries. Christoph Kaiser, M.D., Soeren Galatius, M.D., Paul Erne, M.D., Franz Eberli, M.D., Hannes Alber, M.D., Hans Rickli, M.D., Giovanni Pedrazzini, M.D., Burkhard Hornig, M.D., Osmund Bertel, M.D., Piero Bonetti, M.D., Stefano De Servi, M.D., Hans-Peter Brunner-La Rocca, M.D., Ingrid Ricard, Ph.D., and Matthias Pfisterer, M.D. for the BASKET-PROVE Study Group: *N Engl J Med* 2010; 363:2310-2319**