

Curriculum Vitae



Biographical Sketch

Name: Professor Dr. rer. nat. Dipl. Biol. Stefanie Dimmeler
born: 18 July 1967 in Ravensburg, Germany
family status: Single
nationality: German

Address: Institute of Cardiovascular Regeneration
Centre for Molecular Medicine
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Education/Training

1986 High school examination (Abitur)
1986 - 1991 Biology Student at the University of Konstanz/Germany
1987 **B.S.** in Biology (Vordiplom Biologie)
1990 - 1991 Diploma at the Department of Biological Chemistry (Prof. Dr. V. Ullrich), University Konstanz. **Title:** "Einfluss von Ebselen auf Ca²⁺-Ströme in humanen Thrombozyten"
15. February 1991 **M.S.** in Biology (Dipl. Biol.) (Mark: very good)
March 1991 - Dec. 1992 Fellow of the "Graduiertenkolleg für Biochemische Pharmakologie".
March 1991 - Jan. 1993 **PhD** Student at the Department of Biological Chemistry (Prof. Dr. V. Ullrich), University Konstanz: **Title:** "Nitric oxide-stimulated ADP-ribosylation"
14. January 1993 **Doctoral degree** (Dr. rer. nat.) (Mark: very good)
Dec. 1992 - June 1995 Post-doctoral fellow at the Biochemical and Experimental Division of the II. Department of Surgery at the University of Cologne/Germany (Prof. Dr. E. Neugebauer)

June 1995 - Jan 2001	Senior Post-doctoral fellow (Wissenschaftliche Assistentin; C1) at the Medizinischen Klinik IV, Kardiologie, Johann Wolfgang Goethe Universität Frankfurt/Germany (Prof. Dr. Andreas M. Zeiher)
since October 1997	Head Division of "Molecular Cardiology" (Schwerpunkt: Molekulare Kardiologie) at the University of Frankfurt
November 1998	Associate Professor - Habilitation „Experimentelle Medizin“ Title: Endotheldysfunktion in der Atherosklerose - Untersuchungen zur Apoptose von Endothelzellen
January 2001	Professorship for Molecular Cardiology at the University of Frankfurt (C3 Professur auf Lebenszeit)
2006 - 2008	Visiting Professor New York Medical College
2007 - 2008	Hustinx Chair, CARIM, University of Maastricht
since March 2008	Full Professorship (W3) , Director of the Institute of Cardiovascular Regeneration, Center for Molecular Medicine, University Frankfurt/Germany
2008 - present	Member of the German Ethical Committee (Deutscher Ethikrat, Berlin/Germany)
June 2009	Visiting Professor Stanford University
since December 2010	Chief Editor "EMBO Molecular Medicine"

Frankfurt, March 26th 2012

Honors and Awards

- 1991 Foundation of German Sciences (Preis des Stifterverbands für die deutsche Wissenschaft), Award
- 1991 Fellowship “Graduiertenkolleg: Biochemische Pharmakologie”
- 1992 Fellowship: “Boehringer Ingelheim Fonds”
- 1994 Fritz-Külz-Award of the German Association of Pharmacology and Toxicology
- 1997/98 Habilitationsstipendium of the Deutsche Forschungsgemeinschaft (DFG)
- 1998 Award of the German Heart Foundation (Forschungspreis der Deutschen Stiftung für Herzforschung)
- 1999 Award of the Herbert and Hedwig Eckelmann-Foundation
- 2000 Award of the German Cardiac Society (Fraenkel-Preis der Deutschen Gesellschaft für Kardiologie-Herz-Kreislaufforschung)
- since 2001 Fellow of the „American Heart Association“
- 2002 Alfred Krupp-Award 2002
- 2004 Forssmann Award 2004
- 2005 Leibniz Award of the Deutsche Forschungsgemeinschaft (DFG)
- 2005 George E. Brown Memorial Lecture at the Scientific Session of the AHA 2005
- 2006 FEBS Anniversary Prize 2006
- 2006 Basic Science Lecture and Silver Medal of the European Society of Cardiology 2006
- 2007 Ernst Jung Award 2007
- 2008 Science4Life Award 2008
- 2010 Research Award of the GlaxoSmithKline Foundation
- 2010 Chief Editor of the Journal “EMBO Molecular Medicine”
- 2010 Life Achievement Award by Dutch-German Molecular Cardiology Working Groups

Associated Editorship

Journal of Molecular and Cellular Cardiology (2002 - 2005)
European Heart Journal (since 2009)
Circulation Research (since 2009)

Editorial Board Member

Arteriosclerosis Thrombosis Vascular Biology (ATVB) (2001 - present)
Basic Research in Cardiology (2001 - present)
Circulation (2001 - present)
Circulation Research (2000 - 2008)
Journal of Clinical Investigation (2005 - present)

Reviewer

Reviews for Journals (Selection)

Cancer Cell; Cell; Cell Stem Cell; EMBO Journal; FASEB Journal; Journal of Biological Chemistry; Journal of Experimental Medicine; Nature Cell Biology; Nature Medicine; New England Journal of Medicine; Molecular Cell; PNAS; Science

Reviews for Scientific Boards (Selection)

Deutsche Forschungsgemeinschaft (DFG), Germany
European Union (EU)
Fonds zur Förderung der wissenschaftlichen Forschung, Austria
INSERM, France
Schweizer Nationalfonds zur Förderung der wissenschaftlichen Forschung, Suisse
The Netherlands Heart Foundation (NHF), the Netherlands
The Health Research Board, Ireland
The Wellcome Trust (Board Panel Member 2002 - 2004)
CNIC, Madrid

Conference Organisation (international conferences only)

1st Annual Symposium of the AHA Council of Basic Cardiovascular Sciences “Stress signals, molecular target and the genome”, July 14 - 18, 2004; Stevenson, Washington, US

Symposium “Molecular and cellular regulators of vascular homeostasis”,
March 10 - 11, 2005, Frankfurt, Germany

57th Mosbach Colloquium by the German Society for Biochemistry and Molecular Biology (GBM) “Redox signaling: Mechanisms and Biological Impact”, April 6 - 8, 2006, Mosbach, Germany

Keystone Meeting “Mechanisms of Cardiac Disease and Regeneration”, February 19 - 24, 2006, Santa Fe, New Mexico, US

Joint 2007 Keystone Symposia “Molecular Pathways in Cardiac Development and Disease/ Integrative Basis of Cardiovascular Disease”, January 22 - 27, 2007, Breckenridge, Colorado

Symposium „microRNAs in the cardiovascular system“, September 18th, 2009, Frankfurt, Germany

EMBO Molecular Medicine “Molecular Insights for Innovative Therapies”, December 1 – 3, 2011 Heidelberg, Germany

Invited Presentations (Selection of 1999)

Gordon-Conference “Angiotensin”, Oxford, 1999
„Regulation of endothelial cell apoptosis by angiotensin II“

American Heart Association - 73rd Scientific Sessions New Orleans, November 2000
Cardiovascular Seminar: “The role of Akt phosphorylation in eNOS activation”

European Society of Cardiology – XXIInd Congress of the ESC Amsterdam, August 2000
Symposium: “Regulation of eNOS by Akt-dependent phosphorylation”

The International Society on Thrombosis and Haemostasis, XVIII Conference Paris July 2001
“Regulatory genes of endothelial cell apoptosis”

European Haematology Association – 6th Meeting, Frankfurt, June 2001
Plenary Session: “Hematopoietic stem cells and vasculogenesis”

Nobel Conference on Apoptosis, Stockholm October 2001
“Molecular Mechanisms regulating endothelial cell apoptosis”

European Society of Cardiology – XXIIIrd Congress of the ESC Stockholm, September 2001

1. "Shear stress and endothelial nitric oxide production: mechanisms of signal transduction"
2. "ROS and apoptosis"

Dr. Steiner Cancer Foundation / Swiss Society for Oncology, Bern November 2001

"Apoptosis and Angiogenesis"

American Heart Association – 74th Scientific Sessions Los Angeles, November 2001

Cardiovascular Seminar: "Post-transcriptional regulation of eNOS"

Japanese Circulation Society – 66th Annual Meeting Sapporo, April 2002

Symposium: "Redox signaling and cardiovascular diseases"

Featured Research: „Atherosclerosis: new insights and interventions“

Deutsche Gesellschaft für Hämatologie und Onkologie – Jahrestagung, München Oktober 2002

Plenary Session: "Stem cell therapy in myocardial infarction – experimental and clinical data"

Heart Failure Society – 6th Annual Meeting, Boca Raton September 2002

"Oxidative stress and endothelial cell apoptosis in congestive heart failure"

American Heart Association – 75th Scientific Sessions, Chicago November 2002

Frontiers in Basic Science Lecture: "Cardiac muscle cell formation by adult mesangioblasts"

State of the Art Lecture: „Vascular Regeneration and remodeling“

Gene and Cell Therapy CRT 2003, Washington January 2003

Lectures: "Summary of worldwide clinical results with bone marrow-derived cells for acute MI and angiogenesis" and "Number and migratory capacity of circulating endothelial progenitor cells inversely correlates with risk factors for coronary artery disease"

Japanese Circulation Society – 67th Annual Meeting Fukuoka, March 2003

Featured Research Keynote Lecture "Apoptosis and endothelial regeneration"

6th EMBL Minisymposium on Molecular Medicine, Rome May 2003

"Endothelial Progenitor Cells and Cardiac Regeneration"

International Society of Thrombosis and Haemostasis XIXth Congress, Birmingham July 2003

"Stem cell mobilisation and differentiation to endothelial cells"

American Heart Association: Basic biology and insights into ischemic heart disease and heart failure, Snowbird August 2003

"Circulating progenitor cells: molecular mechanisms and clinical relevance"

Genetic and cell therapy for cardiovascular disease, Mayo Clinic, Rochester October 2003

"Endothelial Progenitors: Are we talking about the same cells?"

American Heart Association – 76th Scientific Sessions, Orlando, November 2003

Cardiovascular Seminar: "Endothelial cell apoptosis in atherosclerosis"

Cardiovascular Seminar: "NO and age-related apoptosis"

Keystone Symposium: "Cardiac Development and Congenital Heart Disease" and "Molecular Biology of Heart Disease" Joined Session Keystone, Colorado, March 2004

"Circulating Progenitor Cells for Vasculogenesis and Cardiac Regeneration"

European Society of Cardiology, XXVI Annual Meeting, Munich, September 2004

Highlight Session: "Basic Science"

Heart Failure Society, 8th Annual Scientific Meeting, Toronto, September 2004

Signals for endothelial progenitor cell mobilisation and their role in myocardial infarction and heart failure

Symposium on Cardiovascular Regenerative Medicine at the NIH, September 2004

Endothelial progenitor cells and tissue regeneration

American Heart Association – 77th Scientific Sessions, New Orleans, November 2004
Special Session: "Endothelial progenitor cells"

Keystone Symposium: The cellular biology of atherosclerosis. Keystone, Colorado, January 2005
Arterial wall-based therapy of atherosclerosis: Stem cell therapies

69th Annual Scientific Meeting of the Japanese Circulation Society March 2005, Yokohama, Japan

1. Circulating progenitor cells for regeneration enhancement in ischemic heart disease
2. Role of acetylation and homeobox genes in endothelial differentiation

Gordon Conference: "Angiogenesis and Microcirculation" Newport, Rhode Island, August 2005
Molecular mechanism regulating homing and differentiation of endothelial progenitor cells

European Society of Cardiology, XXVII Annual Meeting, Stockholm, September 2005
Highlight Session: "Basic Science"

British Atherosclerosis Society Meeting, Cambridge, UK, September 2005
Hugh Sinclair Lecture: Stem cell and endothelial progenitor cell senescence in atherosclerosis

British Society for Cardiovascular Research Autumn Meeting, London, September 2005
The National Heart Research Fund Lecture: Circulating progenitor cells in infarct repair

George E. Brown Memorial Lecture American Heart Association – 78th Scientific Sessions, Dallas, November 2005

Miami Nature Biotechnology Symposium Winter Symposium Angiogenesis in Cancer and Vascular Disease, 4 – 8 February 2006
"Mechanism regulating endothelial progenitor cell homing and differentiation"

Keystone Symposium on Molecular Mechanism of Cardiac Disease and Regeneration. Santa Fe, 19 - 24 February 2006
"Endothelial progenitor cells for neovascularization"

5th Congress of Asian Pacific Society of Atherosclerosis, Jeju, Korea, 11 - 16 April 2006
"Vascular biology and stem cells"

14th International Conference of the International Society of Differentiation. Innsbruck, 8 - 10 October 2006
"Progenitor cells for neovascularization"

Keystone Symposium on Integrative Basis of Cardiovascular Disease, Breckenridge, 22 - 27 January 2007
"Progenitor cells in cardiovascular repair"

Keystone Symposium on Cardiac Disease in Asheville, North Carolina, 18 – 19 March 2009
Talk: „Control of Angiogenesis by microRNA“

AHA-BCVS-Conference 2009 in Las Vegas / USA, 22 – 2 July 2009
Talk: „Cardiac Stem Cell Recruitment Following Injury“

Victor Chang Symposium in Darlinghurst / Australien, 27 October - 03 November 2009
Lecture: "microRNAs in cardiovascular repair"

8th Dutch-German Joint Meeting of the Molecular Cardiology Working Groups in Rotterdam / NL, 18 - 19 February 2010
Keynote lecture: "Achievement Award by Duncker/Duckers"

BSCR/BAS Meeting with BCS in Manchester / England, 07 – 09 June 2010
Talk: Vortrag "MicroRNA in cardiovascular development and disease"

WorldPharma 2010 in Kopenhagen / Dänemark, 19 July 2010

Plenary Lecture: "Cell Therapy"

Gordon Research Conference on Endothelial Phenotypes in Biddeford, Maine / USA, 08 – 09 August 2010

Keynote lecture: „microRNAs in in the Endothelium – What are they doing? “

International Symposium "Novel Cardiovascular Therapies based on the Modulation of Cell Migration and Cell Differentiation, Berlin, 04 – 05 February 2011

Keynote Lecture: "Sites of Origin and Systemic Migration of Cardiovascular Progenitor Cells in Cardiac diseases"

Past and present leadership in national and international networks

National networks:

- Collaborative research center SFB 553 (2000 - 2007) (member of the steering committee)
- Research Unit FOR501 (Initiator and coordinator 2003 - 2006)
- Collaborative research center TR-SFB23 (steering committee 2005 – present)
- Excellence Cluster "Cardiopulmonary System" (member of the steering committee and area leader; 2006 - present)
- Collaborative research center SFB 834 (vice-spokesperson)

International networks:

- European Network of Excellence (EVGN) (Member of the executive committee and Area leader) (2004 - 2010)
- Transatlantik Network of Excellence "Cardiac Regeneration" funded by the Leducq Foundation (European Coordinator) (2004 - 2008)
- European Integrated Project "Heart Repair" (Member of the Executive board, Area leader) (2006 - 2010)

Top 15 Publications

1. **Dimmeler S.**, Haendeler J., Nehls M., Zeiher AM. (1997) Suppression of apoptosis by nitric oxide via inhibition of interleukin-1 β -converting enzyme (ICE)-like and cysteine protease protein (CPP-32)-like proteases. *J. Exp. Med.*, 185:601-607
2. **Dimmeler S.**, Fleming I., Fisslthaler B., Hermann C., Busse R., Zeiher AM. (1999) Activation of the nitric oxide synthase in endothelial cells via Akt-dependent phosphorylation. *Nature*, 399:601-605
3. **Dimmeler S.**, Aicher A., Vasa M., Mildner-Rihm C., Adler K., Tiemann M., Ruetten H., Martin H., Zeiher AM. (2001) HMG-CoA-reductase inhibitors (statins) increase endothelial progenitor cells via the PI3K/Akt pathway. *J Clin Invest*, 108:391-397
4. Haendeler J., Hoffmann J., Tischler V., Berk B.C., Zeiher AM., **Dimmeler S.** (2002) Redox regulatory and anti-apoptotic functions of thioredoxin depend on S-nitrosylation at cysteine 69. *Nature Cell Biology*, 743–749
5. Aicher A., Heeschen C., Mildner-Rihm C., Urbich C., Ihling C., Technau-Ihling K., Zeiher AM., **Dimmeler S.** (2003) Essential role of endothelial nitric oxide synthase for mobilization of stem and progenitor cells. *Nature Medicine*, 9:1370-1376
6. Chavakis E., Aicher A., Heeschen C., Sasaki KI., Kaiser R., El Makhfi N., Urbich C., Peters T., Scharffetter-Kochanek K., Zeiher AM., Chavakis T., **Dimmeler S.** (2005) Role of β 2-integrins for homing and neovascularization capacity of endothelial progenitor cells. *J Exp Med*, 201:63-72
7. Urbich C., Heeschen C., Aicher A., Sasaki KI., Bruhl T., Farhadi M.R., Vajkoczy P., Hofmann W.K., Peters C., Pennacchio LA., Abolmaali N.D., Chavakis E., Reinheckel T., Zeiher AM., **Dimmeler S.** (2005) Cathepsin L is required for endothelial progenitor cell-induced neovascularization. *Nat Med*, 11:206-213
8. Rössig L., Urbich C., Bruhl T., Dernbach E., Heeschen C., Chavakis E., Sasaki K., Aicher D., Diehl F., Seeger F., Potente M., Aicher A., Zanetta L., Dejana E., Zeiher AM., **Dimmeler S.** (2005) Histone deacetylase activity is essential for the expression of HoxA9 and for endothelial commitment of progenitor cells. *J Exp Med*, 201:1825-35
9. Assmus B., Honold J., Schächinger V., Britten M.B., Fischer-Rasokat U., Lehmann R., Teupe C., Pistorius K., Martin H., Abolmaali ND., Tonn T., **Dimmeler S.**, Zeiher AM. (2006) Transcoronary transplantation of progenitor cells after myocardial infarction. *N Engl J Med*, 355:1222-32
10. Schächinger V., Erbs S., Elsasser A., Haberbosch W., Hambrecht R., Holschermann H., Yu J., Corti R., Mathey D.G., Hamm C.W., Suselbeck T., Assmus B., Tonn T., **Dimmeler S.**, Zeiher AM. (2006) Intracoronary bone marrow-derived progenitor cells in acute myocardial infarction. *N Engl J Med*, 355:1210-21
11. Potente M., Ghaeni L., Baldessari D., Mostoslavsky R., Rössig L., Dequiedt F., Haendeler J., Mione M., Dejana E., Alt F.W., Zeiher AM., **Dimmeler S.** (2007) SIRT1 controls endothelial angiogenic functions during vascular growth. *Genes Dev.*; 21:2644-58
12. Bonauer A., Carmona G., Iwasaki M., Mione M., Koyanagi M., Fischer A., Burchfield J., Fox H., Doebele C., Ohtani K., Chavakis E., Potente M., Tjwa M., Urbich C., Zeiher AM., **Dimmeler S.** (2009) MicroRNA-92a controls angiogenesis and functional recovery of ischemic tissues in mice. *Science*, 324:1710-3
13. Boeckel JN., Guarani V., Koyanagi M., Roexe T., Lengeling A., Schermuly RT., Gellert P., Braun T., Zeiher AM., **Dimmeler S.** (2011) Jumonji domain-containing protein 6 (Jmjd6) is required for angiogenic sprouting and regulates splicing of VEGF-receptor 1. *Proc Natl Acad Sci U S A*, 108:3276-81
14. Kaluza D., Kroll J., Gesierich S., Yao TP., Boon RA., Hergenreider E., Tjwa M., Rössig L., Seto E., Augustin HG., Zeiher AM., **Dimmeler S.***, Urbich C. (2011) Class IIb HDAC6 regulates endothelial cell migration and angiogenesis by deacetylation of cortactin. *EMBO J*, 30:4142-56
*Corresponding author
15. Hergenreider E., Heydt S., Tréguer K., Boettger T., Horrevoets AJ., Zeiher AM., Scheffer MP., Frangakis AS., Yin X., Mayr M., Braun T., Urbich C., Boon RA., **Dimmeler S.** (2012) Atheroprotective communication between endothelial cells and smooth muscle cells through miRNAs. *Nat Cell Biol.*, 14:249-56

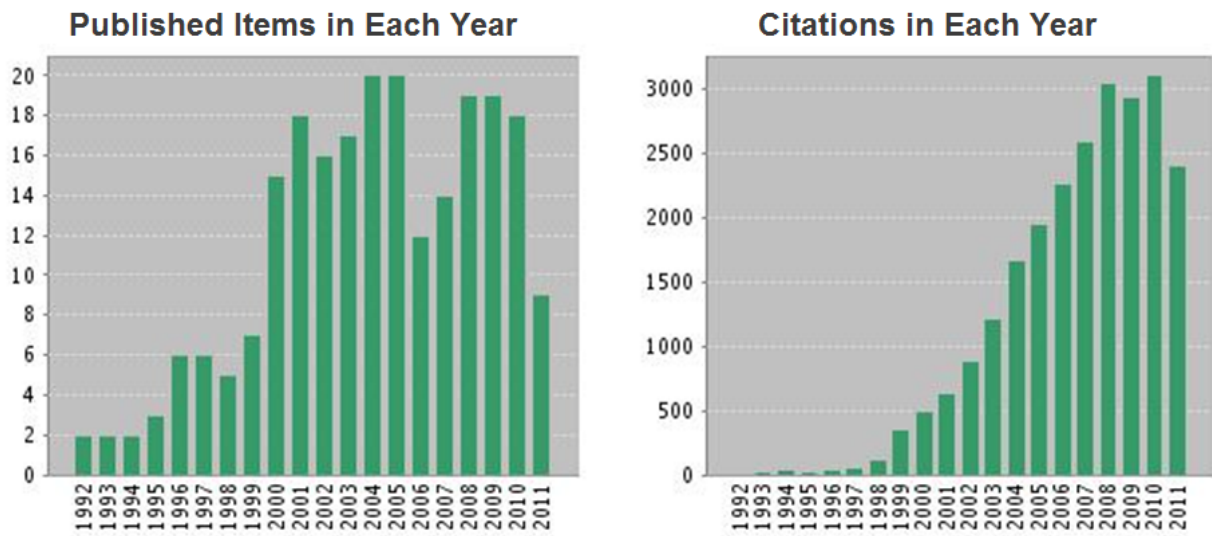
Publications and citation statistics

Peer-reviewed publications: 231

Sum of citations: 23.829

Average citation per article: 103

h-Index: 81



(Source: ISI Web of Science 10/2011)

Publications

1. **Dimmeler S.**, Brüne B., Ullrich V. (1991) Ebselen prevents inositol (1,4,5)-trisphosphate binding to its receptor. *Biochem. Pharmacol*, 42:1151-1153
2. **Dimmeler S.**, Brüne B. (1991) L-arginine stimulates an endogenous ADP-ribosyltransferase. *Biochem. Biophys. Res. Commun*, 178:848-855
3. Brüne B., **Dimmeler S.**, Lapetina E.G. (1992) NADPH: A stimulatory cofactor for nitric oxide-induced ADP-ribosylation reaction. *Biochem. Biophys. Res. Commun*, 182:1166-1171
4. **Dimmeler S.**, Lottspeich F., Brüne B. (1992) Nitric oxide causes ADP-ribosylation and inhibition of glyceraldehyde-3-phosphate dehydrogenase. *J. Biol. Chem*, 267:16771-16774
5. **Dimmeler S.**, Brüne B. (1992) Characterization of a nitric oxide catalysed ADP-ribosylation of glyceraldehyde-3-phosphate dehydrogenase. *Eur. J. Biochem*, 210:305-310
6. **Dimmeler S.** and Brüne B. (1993) Nitric oxide preferentially stimulates auto-ADP-ribosylation of glyceraldehyde-3-phosphate dehydrogenase compared to alcohol or lactate dehydrogenase. *FEBS Lett*, 315:21-24
7. **Dimmeler S.**, Ankarcona M., Nicotera P., Brüne B. (1993) Exogenous NO-generation or IL-1 β induced intracellular NO production stimulate inhibitory auto-ADP-ribosylation of glyceraldehyde-3-phosphate dehydrogenase in RINm5F-cells. *J. of Immunol*, 150:2964-2971
8. **Dimmeler S.**, Meßmer UK., Tiegs G., Brüne B. (1994) Down-regulation of glyceraldehyde-3-phosphate dehydrogenase in LPS-treated mice - possible involvement of a nitric oxide stimulated ADP-ribosylation. *Eur. J. Pharmacol*, 267:105-112
9. **Dimmeler S.**, Lechleuthner A., Auweiler M., Troost C., Nagelschmidt M., Neugebauer E. (1995) Effect of H₁-antagonism on cardiovascular, pulmonary and immunological dysfunction in porcine endotoxic shock. *Shock*, 3:416-421
10. **Dimmeler S.**, Brinkmann S., Neugebauer E. (1995) Endotoxin induced changes of endothelial cell viability and permeability: Protective effect of the 21-aminosteroid. *Eur. J. Pharmacol.*, 287:257-261
11. **Dimmeler S.**, Kum C.K., Troost C., Auweiler M., Lechleuthner A., Nagelschmidt M., Neugebauer E. (1996) H₁-Antagonism improves intestinal mucosal pH and heart function in porcine hypodynamic endotoxic shock. *Shock*, 5:213-216
12. Haendeler J., Meßmer U., Brüne B., Neugebauer E., **Dimmeler S.** (1996) Endotoxin leads to apoptosis in vivo and reduces Bcl-2. *Shock*, 6:405-409
13. Grellner W., Madea B., Kruppenbacher JP., **Dimmeler S.** (1996) Interleukin-1a and N-formyl-methionyl-leucyl-phenyl-alanine (FMLP) as potential inducers of supravital chemotaxis. *Int. J. Leg. Med.*, 109:130-133
14. Matysiak-Scholze U., **Dimmeler S.**, Nehls M. (1996) Dextran blue as an aid for DNA precipitation and gel loading. *Trends in Genetics*, Technical Tips Online (<http://www.elsevier.com/locate/tto>)
15. Haendeler J., Zeiher AM., **Dimmeler S.** (1996) Vitamin C and E prevent lipopolysaccharide-induced apoptosis in human endothelial cells by modulation of Bcl-2 and Bax. *Eur. J. Pharmacol*, 317:407-411
16. **Dimmeler S.**, Haendeler J., Rippmann V., Nehls M., Zeiher AM. (1996) Shear stress inhibits apoptosis of human endothelial cells. *FEBS Lett*, 399:71-74
17. **Dimmeler S.**, Haendeler J., Nehls M., Zeiher AM. (1997) Suppression of apoptosis by nitric oxide via inhibition of interleukin-1 β -converting enzyme (ICE)-like and cysteine protease protein (CPP-32)-like proteases. *J. Exp. Med*, 185:601-607
18. **Dimmeler S.**, Haendeler J., Galle J., Zeiher AM. (1997) Oxidized Low density lipoprotein induces apoptosis of human endothelial cells by activation of CPP32-like proteases: A mechanistic clue to the „response to injury“ hypothesis. *Circulation*, 95:1760-1763
19. Haendeler J., Weiland U., Zeiher AM., **Dimmeler S.** (1997) Effects of redox-related congeners of NO on apoptosis and caspase-3 activity. *Nitric Oxide*, 1:282-293
20. Walter D.H., Schächinger V., Elsner M., **Dimmeler S.**, Zeiher AM. (1997) Platelet Glycoprotein IIIa polymorphism is associated with increased risk of coronary stent thrombosis. *Lancet*, 350:1217-1219
21. Hermann C., Zeiher AM., **Dimmeler S.** (1997) Shear stress inhibits H₂O₂-induced apoptosis of human endothelial cells by modulation of glutathion redox cycle and nitric oxide synthase. *Arterioscl Thromb Vasc Biol*, 17:3588-3593
22. **Dimmeler S.**, Rippmann V., Weiland U., Haendeler J., Zeiher AM. (1997) Angiotensin II induces apoptosis of human endothelial cells - Protective effect of nitric oxide. *Circ Res*, 81:970-977
23. **Dimmeler S.**, Haendeler J., Sause A., Nehls M., Zeiher AM. (1998) Nitric oxide inhibits APO-1/Fas-mediated cell death, *Cell Growth & Diff*, 9:415-422
24. **Dimmeler S.**, Assmus B., Hermann C., Zeiher AM. (1998) Fluid shear stress stimulates phosphorylation of Akt in human endothelial cells - involvement in suppression of apoptosis. *Circ Res*, 83:334-342

25. Walter D.H., Galle J., Zeiher AM., **Dimmeler S.** (1998) Cyclosporine A inhibits apoptosis of human endothelial cells by preventing the release of cytochrome C from the mitochondria. *Circulation*, 98:1153-1157
26. Grellner W., **Dimmeler S.**, Madea B. (1998) Immunohistochemical detection of fibronectin in postmortem incised wounds of porcine skin. *Forensic Sci Int* 97:109-116
27. Galle J., Schneider R., Heinloth A., Wanner C., Galle P.R., Conzelmann E., **Dimmeler S.**, Heermeier K. (1998) LP(a) induces apoptosis in cultured human endothelial cells and in intact rabbit aorta more potently than LDL - role of oxidative stress. *Kidney International*, 55:1450-1461
28. Rössig, L., Fichtlscherer B., Breitschopf K., Haendeler J., Zeiher AM., Mülsch A., **Dimmeler S.** (1999) Nitric oxide inhibits caspase-3 via S-nitrosation in vivo. *J Biol Chem*, 274:6823-6826
29. **Dimmeler S.**, Haendeler J., Breitschopf K., Zeiher AM. (1999) Selective ubiquitin-dependent degradation of Bcl-2 links the proteasome complex with apoptosis signaling via the MAP-kinase pathway. *J.Exp.Med.* 189:1815-1822
30. **Dimmeler S.**, Hermann C., Galle J., Zeiher AM. (1999) Upregulation of superoxide dismutase and nitric oxide synthase synergize to mediate the apoptosis-suppressive effects of shear stress on endothelial cells, *Arterioscl Thromb Vasc Biol*, 19:656-664
31. **Dimmeler S.**, Fleming I., Fißlthaler B., Hermann C., Busse R., Zeiher AM. (1999) Activation of the nitric oxide synthase in endothelial cells via Akt-dependent phosphorylation *Nature* 399:601-605
32. Heermeier, K., Schneider R., Heinloth A., Wanner C., **Dimmeler S.**, Galle J. (1999) Oxidative stress mediates apoptosis induced by oxidized low-density lipoprotein and oxidized lipoprotein. *Kidney Int* 56:1310-1312
33. Nagelschmidt M., Fu ZX., Saad S., **Dimmeler S.**, Neugebauer E. (1999) Preoperative high dose methylprednisolone improves patients outcome after abdominal surgery. *Eur. J. Surg.* 165:971-978
34. Weiland U., Haendeler J., Ihling C., Albus U., Scholz W., Ruetten H., Zeiher AM., **Dimmeler S.** (2000) Inhibition of nitric oxide synthase potentiates ischemia/reperfusion-induced myocardial apoptosis via a caspase-3 dependent pathway, *Cardiovasc. Res.*, 45: 671-678
35. Hermann C., Assmus B., Zeiher AM., **Dimmeler S.** (2000) Insulin-mediated inhibition of protein kinase Akt: a potent survival signaling cascade for endothelial cells. *Arterioscl. Thromb. Vasc. Biol.* 20: 402-409
36. Breitschopf K., Haendeler J., Malchow P., Zeiher AM., **Dimmeler S.** (2000) Posttranscriptional modification of Bcl-2: Molecular characterization of the involved signaling pathway. *Mol Cell Biol*, 20:1886-1896
37. Urbich C., Fritzenwanger F., Zeiher AM., **Dimmeler S.** (2000) Laminar shear stress up-regulates the complement inhibitory protein clusterin: a novel potent defence mechanism against complement-induced endothelial cell activation. *Circulation*, 101:352-355
38. Fißlthaler B., **Dimmeler S.**, Hermann, C., Busse R., Fleming I. (2000) Phosphorylation and activation of the endothelial nitric oxide synthase by fluid shear stress *Acta Physiol Scand*, 168:81-88
39. Jormsjö S., Ye S., Moritz J., Walter D.H., **Dimmeler S.**, Zeiher AM., Henney A., Hamsten A., Eriksson P. (2000) Differential regulation of matrix metalloelastase gene activity influences coronary artery luminal dimensions in diabetic patients with manifest coronary disease. *Circ Res.*, 86:998-1003
40. Fichtlscherer S., Rosenberger G., Walter D.H., Breuer S., **Dimmeler S.**, Zeiher AM. (2000) Elevated C-reactive protein levels and impaired endothelial vasoreactivity in patients with coronary artery disease. *Circulation*, 102:1000-1006
41. Breitschopf K., Zeiher AM., **Dimmeler S.** (2000) Ubiquitin-mediated degradation of the proapoptotic active form of Bid: A functional consequence on apoptosis induction. *J Biol Chem*, 275:21648-52
42. **Dimmeler S.**, Dernbach E., Zeiher AM. (2000) Phosphorylation of the endothelial nitric oxide synthase at Ser1177 is required for VEGF-induced endothelial cell migration. *FEBS Lett*, 477:258-262
43. Rössig L., Haendeler J., Hermann C., Malchow P., Zeiher AM., **Dimmeler S.** (2000) Transcriptional downregulation of MKP-3 mRNA by nitric oxide: involvement in endothelial cell protection from apoptosis. *J Biol Chem*, 275:25502-25507
44. Urbich C. Walter D.H., Zeiher AM., **Dimmeler S.** (2000) Laminar shear stress up-regulates integrin expression: role in endothelial cell adhesion and apoptosis. *Circ Res.*, 87:683-689
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Funding

Awards:

Alfried Krupp Award Award 2002 – 2008	0.5 Mio €
Leibniz Award	1.55 Mio €
Jung Award 2007	67.500 €

Summary of peer-reviewed funding 2001-2011 (€)

Year	National	International	total
2001	407.080	0	407.080
2002	493.608	0	493.608
2003	493.608	0	493.608
2004	431.894	172.630	604.524
2005	456.395	209.250	665.645
2006	456.750	478.000	934.750
2007	367.600	458.000	825.600
2008	457.600	418.000	875.600
2009	231.000	898.000	1.129.000
2010	359.356	713.626	1.072.982
2011	642.612	796.551	1.439.163

Peer-reviewed funding since 2005

Peer-reviewed national funding by the Deutsche Forschungsgemeinschaft (DFG)

Research Unit FOR501 Project Di 600/6-1,6-2,6-3,6-4 (2004 - 2009)	122.800 €/Year
Collaborative Research Center SFB553 (2004 - 2007) Project B6	127.200 €/Year
Collaborative Research Center TR-SFB23 (2005 - 2009)	87.600 €/Year
Collaborative Research Center TR-SFB23 (2 nd funding period: 2009 - 2013)	101.400 €/Year
Excellence Cluster “Cardiopulmonary Systems” (Exc 147-1) (2006 - 2012)	ca.100.000 €/Year
Collaborative Research Center SFB834 (2010 - 2013)	319.012 €/Year
Collaborative Research Center SFB902 (2011 - 2015)	73.800 €/Year
LOEWE CGT “Cell and Gene Therapy” (2011 – 2014)	136.000 €/Year

Peer-reviewed international funding

Transatlantic Network of Excellence “Cardiac Regeneration” (Leducq foundation) (2004 - 2010)	278.000 €/Year
European Network of Excellence (EVGN) (2004 - 2008)	60.000 €/Year
Integrated Project Heart Repair (EU) (2006 – 2010)	100.000 €/Year
Integrated Project Angioscaff (EU) (2008 – 2012)	93.680 €/Year
ERC Advanced Grant (Angiomir) (2009 - 2014)	440.000 €/Year
European Community (Endostem) (EU) (2010 – 2014)	94.800 €/Year