Axel Radlach Pries

Date of Birth	February 20, 1954**,** Cologne, Germany
Address	Charité - Universitätsmedizin Berlin, Charitéplatz 1, 10117 Berlin
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Title/Position	Professor of Physiology and Dean, Charité

Education, professional career

1979	Medical examination, University of Cologne
2/1980	Doctoral degree (Dr. med., summa cum laude)
1980	Postdoctoral Fellow, University of Cologne
1985	Research Assistant (C1), Dept. of Physiology, FU
7/1990	Habilitation, Medical Faculty, Freie Universität Berlin (FU)
1991	Lecturer of Physiology (C2), Dept. of Physiology, FU
1995	Associate Professor, Dept. of Physiology, FU
1997-1998	Senior Physician, Anaesthesiology, German Heart Centre Berlin (DHZB)
12/1998	Full Professor, Dept. of Physiology, FU
1984-2014	University of Arizona, Tucson, Consultant for NIH grants with Tim Secomb, (yearly stays of one month at UofA).

Leading functions

2001-2015	Head, Institute of Physiology, Charité-Berlin
2003-2015	Board Member, Faculty of Medicine, Charité-Berlin
2008-2015	Vice Director, Centre for Preclinical Medicine, Charité-Berlin
2009-2013	Vice Director, Centre for Cardiovascular Research, CCR, Charité-Berlin
2014	Chair, 'Studienausschuss Modellstudiengang Medizin'
2015-present	Dean, Charité-Berlin

Honours, Awards, Fellowships

1980	Thesis Award "Hochhausstiftung", University of Cologne
1986	Abbott Microcirculation Award, European Society for Microcirculation
1995	Lafon Hemorheology-Microcirculation Award, International Society for Clinical Haemorheology
2000	Fellow, European Society of Cardiology
2008	Visiting Fellowship, Isaac Newton Institute for Mathematical Sciences, Cambridge/UK
2008	Award of the Asian Union for Microcirculation
2011	Malpighi Award, European Society for Microcirculation
2015	William Harvey Basic Science Lecture and Silver Medal, European Society of Cardiology (ESC)
2015	Kitanomaru Award, 10th World Conf. for Microcirculation, Kyoto, Japan

Editorial boards

Cardiovascular Research (***associate editor***)
Journal of Vascular Research; Microcirculation; Pflügers Archive European Journal of Physiology; Biorheology; PLoS Computational Biology; The Keio Journal of Medicine, Journal of Cardiovascular Medicine; Frontiers in Vascular Physiology, Frontiers in Computational Physiology and Medicine; Bulletin of the Portuguese Society of Hemorheology and Microcirculation

Leading Functions in Scientific Societies

European Society of Cardiology (ESC)

Congress Programme Committee	
Basic Science Coordinator	2005-2010; 2012-2014
Council on Basic Cardiovascular Science (CBCS)	
Nucleus	2004-present
Chair	2010-2012
Frontiers of Cardiovascular Biology (FCVB), Chairperson	2010
Working Group on Coronary Pathophysiology and Microcirculation	
Nucleus	1994-2002; 2007-2012; 2014-2018
Chair	1998-2000
CardioScape Scientific Committee	2012-2014
European affairs committee	2014-2016

Alliance for Biomedical Research in Europe

Board member	2016-present

International Union of Physiological Societies (IUPS)

Commission on Microcirculation and Capillary Transport	
Physiome and Bioengineering Committee	2004 -2010

European Society for Microcirculation (ESM)

Strategy committee	1995-1998; 2011-2015
General Secretary	1998-2011

International Liaison Committee for Microcirculation (ILCM)

Chair	2006-2015

German Society for Microcirculation

Board	1990-1994; 2011-2015
General Secretary	1996-2011

Organization

Conferences (president, co-president and organization)	6
Symposia (organizer)	43
Member of international scientific program committees	37

Major Research fields

Microcirculation, Organ perfusion, Endothelial function, Endothelial surface, Vascular adaptation, Angiogenesis, Tumour microcirculation, Blood rheology

Cooperations (selected)

Mark Dewhirst, Duke University, Durham, USA; David Boas, Havard University, Cambridge, USA; Tim Secomb: University of Arizona, Tucson, USA; Saul Yedgar, Hebrew University, Jerusalem, Israel; Valentin Djonov: University of Bern, Swiss; Ferdi le Noble: KIT Karlsruhe, Germany

Selected Major Publications (H-Index: 50, Citations > 7500)

Coronary microcirculatory pathophysiology: can we afford it to remain a black box? **Pries AR** and Reglin B. **European Heart Journal** 2016; ehv760.

Coronary vascular regulation, remodelling, and collateralization: mechanisms and clinical implications on behalf of the working group on coronary pathophysiology and microcirculation. **Pries AR**, et al. **European Heart Journal** 2015; 36(45): 3134-3146.

Making microvascular networks work: angiogenesis, remodeling, and pruning. **Pries AR** and Secomb TW. **Physiology (Bethesda)** 2014; 29(6): 446-455.

Metabolic control of microvascular networks: oxygen sensing and beyond. Reglin B and **Pries AR**. **J Vasc Res** 2014; 51(5): 376-392.

Presentation, management, and outcomes of ischaemic heart disease in women. Vaccarino V, Badimon L, Corti R, de Wit C, Dorobantu M, Manfrini O, Koller A, **Pries A**, Cenko E, Bugiardini R. ***Nature Rev Cardiol*** 2013; 10(9): 508-518.

Angiogenesis: an adaptive dynamic biological patterning problem. Secomb TW, Alberding JP, Hsu R, Dewhirst MW, **Pries AR**. ***PLoS Comput Biol*** 2013; 9(3): e1002983.

Precapillary oxygenation contributes relevantly to gas exchange in the intact lung. Tabuchi A, Styp-Rekowska B, Slutsky AS, Wagner PD, **Pries AR***, Kuebler WM* (*these authors share senior authorship). ***Am J Respir Crit Care Med*** 2013; 188(4): 474-481.

Excessive erythrocytosis compromises the blood-endothelium interface in erythropoietin-overexpressing mice. Richter V, Savery MD, Gassmann M, Baum O, Damiano ER, **Pries AR**. ***J Physiol*** 2011; 589(21): 5181-5192.

Pulsatile shear and Gja5 modulate arterial identity and remodeling events during flow-driven arteriogenesis. Buschmann I*, **Pries A***, Styp-Rekowska B et al (*these authors contributed equally). ***Development*** 2010; 137(13): 2187-2196.

The shunt problem: control of functional shunting in normal and tumour vasculature. **Pries AR**, Hopfner M, Le Noble F, Dewhirst MW, Secomb TW. ***Nature Rev Cancer*** 2010; 10(8): 587-593.

Origins of heterogeneity in tissue perfusion and metabolism. **Pries AR** and Secomb TW. ***Cardiovasc Res*** 2009; 81(2): 328-335.

Blood flow in microvascular networks. **Pries AR** and Secomb TW. In: ***Handbook of Physiology***: Microcirculation, edited by Tuma RF, Durán WN and Ley K., Elsevier, 2008, Chap 1, 3-36.

Remodeling of blood vessels: responses of diameter and wall thickness to hemodynamic and metabolic stimuli. **Pries AR**, Reglin B, Secomb TW. ***Hypertension*** 2005; 46(4): 726-731.

The endothelial surface layer. **Pries AR**, Secomb TW, Gaehtgens P. ***Pflugers Arch*** 2000; 440(5): 653-666.

Design principles of vascular beds. **Pries AR**, Secomb TW, Gaehtgens P. ***Circ Res*** 1995; 77(5): 1017-1023.

Resistance to blood flow in microvessels in vivo. **Pries AR**, Secomb TW, Gessner T, Sperandio MB, Gross JF, Gaehtgens P. ***Circ Res*** 1994; 75(5): 904-915.