

BIOGRAPHICAL SKETCH

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NAME Heinrich E. Lob		POSITION TITLE Research Scientist	
eRA COMMONS USER NAME (credential, e.g., agency login)			
EDUCATION/TRAINING (<i>Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.</i>)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
University of Cologne, Germany	Dipl. Biol	01/2002	Protein Biochemistry, Pharmacology and Developmental Biology
University of Cologne, Germany	Ph.D.	05/2006	Pharmacology

Positions and Employment

2002-2006 Graduate Student, University of Cologne, Germany, Pharmacology Department
2006-2010 Postdoctoral Fellow, Emory University
2010-2011 Instructor, Emory University
2011-present Research Scientist, Department of Biomedical Sciences, Cornell University

Professional Activities and Memberships

2008-present Reviewer for Scientific Publications
2011 Ph.D. Thesis Examiner for Monash University, Melbourne, AUS
2004-present Köln Alumni (University of Cologne Alumni Organization)
2005-present Member, American Heart Association
2005-present Member, German Nitric Oxide Society
2007-present Member, American Physiology Society

Honors

2004 Köln Fortune Travel Award
2008-2010 Postdoctoral Fellowship Award, Greater Southeast Affiliation, American Heart Association
2008 Cardiology Travel Award, School of Medicine, Emory University
2010 New Investigator Award, High Blood Pressure Research Council, American Heart Association

A. Manuscripts in Peer Reviewed Journals

Lob HE, Vinh A, Li L, Blinder Y, Offermanns S, Harrison DG. Role of vascular superoxide dismutase in hypertension; **Hypertension**, in press 6/2011

Madhur MS, Funt SA, Li L, Vinh A, Chen W, Lob HE, Iwakura Y, Blinder Y, Rahman A, Quyyumi AA, Harrison DG. Role of Interleukin 17 in Inflammation, Atherosclerosis, and Vascular Function in Apolipoprotein E-Deficient Mice; **Arterioscler Thromb Vasc Biol.** 2011 Apr 7.

Marvar PJ, Thabet SR, Guzik TJ, Lob HE, McCann LA, Weyand C, Gordon FJ, Harrison DG. Central and Peripheral Mechanisms of T-Lymphocyte Activation and Vascular Inflammation Produced by Angiotensin II-Induced Hypertension. **Circulation Research**, 2010 107(2), 263-70.

Lob HE, Marvar PJ, Guzik TJ, Sharma S, McCann LA, Weynand C, Gordon FJ, Harrison DG. Augmentation of Hypertension and Peripheral Inflammation by Reduction of Extracellular Superoxide Dismutase in the Central Nervous System. *Hypertension*, 2010, 55(2), 277-83.

Madhur MS, Lob HE, McCann LA, Iwakura Y, Blinder Y, Guzik TJ, Harrison DG. Interleukin 17 Promotes Angiotensin II-Induced Hypertension and Vascular Dysfunction. *Hypertension*, 2010, 55(2), 500-7.

Guzik TJ, Chen W, Gongora MC, Guzik B, Lob HE, Mangalat D, Hoch N, Dikalov S, Rudzinski P, Kapelak B, Sadowski J, Harrison DG. Calcium-Dependent NOX5 Nicotinamide Adenine Dinucleotide Phosphate Oxidase Contributes to Vascular Oxidative Stress in Human Coronary Artery Disease. *Journal of American College of Cardiology*, 2008, 52 (22), 1803-9.

Gongora MC*, Lob HE*, Landmesser U, Guzik TJ, Martin DW, Ozumi K, Wall SM, Wilson DS, Murthy N, Gravanis M, Fukai T, Harrison DG. Loss of Extracellular Superoxide Dismutase Leads to Acute Lung Damage in the Presence of Ambient Air – A Potential Mechanism Underlying Adult Respiratory Distress Syndrome. *American Journal of Pathology*, 2008, 173-4, 915-26. *Authors contributed equally to this work

Lob H, Rosenkranz AC, Breitenbach T, Berkels R, Roesen R. Modulation of Endothelial NO and Superoxide by Dihydropyridines and ACE Inhibitors in Angiotensin II-induced Oxidative Stress. *Pharmacology*, 2006, 76:8-18.

Rosenkranz AC, Lob H, Breitenbach T, Berkels R, Roesen R. Different Antioxidant Actions of Dihydropyridines and ACE Inhibitors in High Glucose-treated Human Endothelial Cells. *European Journal of Pharmacology*, 2006, 529(1-3), 55-62.

B. Invited Reviews

Harrison DG, Vinh A, Lob HE, Madhur M. Role of the Adaptive Immune System in Hypertension; *Current Opinion in Pharmacology*, 2010, 10(2), 203-7.

Harrison DG, Guzik TJ, Lob H, Madhur M, Marvar PJ, Thabet S, Vinh A, Weynand C. Inflammation, Immunity and Hypertension. *Hypertension*, 2010, Dec 13 (Epub ahead of print).

Marvar PJ, Lob HE, Vinh A, Zarreen F, Harrison DG. The Central Nervous System and Inflammation in Hypertension. *Current Opinion in Pharmacology*, 2010, Dec 31 (Epub ahead of print).

C. Invited Talks at International Conferences

Lob HE. Induction of Hypertension and Peripheral Inflammation by Deletion of Extracellular Superoxide Dismutase in the Central Nervous System. *FASEB Summer Conference: Neural Mechanisms in Cardiovascular Regulation*; Saxtons River, VT, July 18-23 2010.

D. Abstracts for International Conferences

Lob HE, Anthony Vinh, Yelena Blinder, Sergej Dikalov, David G. Harrison. Role of vascular superoxide in hypertension. *Hypertension* 2010, 56.

Lob HE, Marvar PJ, Guzik TJ, Weynand C, Gordon FJ, Harrison DG. Induction of hypertension and peripheral inflammation by deletion of extracellular superoxide dismutase in the central nervous system. *FASEB Journal*, 2010 24, 983.4.

Guzik TJ, McCann LA, Lob HE, Mikołajczyk T, Budzyn K, Naruszewicz M, Harrison DG. Perivascular Adipose Tissue in Angiotensin II Dependent Hypertension. *Circulation* 2009, 120, S1050.

Lob HE, Marvar PJ, McCann L, Offermanns S, Gordon FJ, Harrison DG. Role of SOD3 in circumventricular organs versus the vascular smooth muscle in control of blood pressure. *FASEB Journal*, 2009 23, 1017.33.

Lob HE, Marvar P, Gordon F, Guzik TJ, Harrison DG: Role of Extracellular Superoxide Dismutase in the Central Nervous System on Blood Pressure: Effect of an acute deletion of extracellular Superoxide Dismutase in the Circumventricular Organ. *Hypertension*, 2008, 52(4), e60.

Lob HE, Marvar P, Gordon F, Guzik TJ, Harrison DG: Deletion of Extracellular Superoxide Dismutase in the Subfornical Organ Leads to Moderate Hypertension. *Arteriosclerosis, Thrombosis & Vascular Biology*, 2008, 28(6):e-32-e-149.

Budzyn K, Lob HE, McCann LA, Goronzy JJ, Weyand CM, Harrison DG, Guzik TJ Importance of the chemokine RANTES in the development of angiotensin II-induced hypertension and vascular dysfunction. *FASEB Journal*, 2008, 22, 1210.8.

Guzik TJ, Hoch N, McCann L, Lob H, Brown K, Rahman A, Goronzy J, Weyand C, Harrison DG: Mechanisms Of Vascular T Cell Infiltration In Angiotensin II Dependent Hypertension. Potential Role Of Ccr5-RANTES. *Circulation*, 2007, 116, II_170.

Lob HE, Gongora MC, Guzik TJ, Landmesser U, Ozumi K, Gravanis M, Wall SW, Fukai T, Harrison DG: Acute deletion of the extracellular superoxide dismutase leads to severe lung injury. A novel mouse model replicating ARDS-like lung injury. *FASEB Journal*, 2007, 21, 1b16.

Lob H, Rosenkranz AC, Breitenbach T, Roesen R. Different intra-and extracellular antioxidant actions of dihydropyridines and ACE inhibitors in human endothelial cells. *Proc Ascept*, 2004, 11.

Lob H, Rosenkranz AC, Breitenbach T, Berkels R, Roesen R. Different intra-and extracellular antioxidant actions of dihydropyridines and ACE inhibitors in human endothelial cells. *Proc Aust Soc Clin Exp Pharmacol Toxicol*, 2004, 11, 8.

Lob H, Rosenkranz AC, Breitenbach T, Berkels R, Roesen R. Different intra-and extracellular antioxidant actions of dihydropyridines and ACE inhibitors in human endothelial cells. *Naunyn-Schmiedeberg's Arch Pharmacol*, 2004, 369 (Suppl 1), R63.

E. Research Support

Completed Research Support

AHA0825345E

H. Lob, PI

07/2008-06/2010

Postdoctoral Fellowship, Greater Southeast Affiliation

"Influence of an Extracellular Superoxide Dismutase Knock-out in the Subfornical Organ on Hypertension"

The major goals of this study were to:

1. To examine the role of the extracellular SOD in the subfornical organ in the development of hypertension.
2. To examine the role of the extracellular SOD in the subfornical organ in T cell activation.
3. To examine the role of the extracellular SOD in the subfornical organ in the development of vascular oxidative stress and vascular dysfunction.