

Curriculum vitae

Prof. Dr. med Ralf P. Brandes, FAHA, FSFRBM

born 1969 in Hannover, Germany



1989 – 1995 Medical School

Hannover Medical School and
Emory University,
Atlanta, GA, USA

1997 - 2002 Postdoc

Institute for Cardiovascular
Physiology, Frankfurt Medical
School, Goethe-University

2002 Assistant Professor

Institute for Cardiovascular
Physiology, Frankfurt Medical School, Goethe-
University

2006 Full Professor (W2)

Institute for Cardiovascular Physiology, Frankfurt
Medical School, Goethe-University

Since 2008 Chairman and Director (W3)

Institute for Cardiovascular Physiology, Frankfurt
Medical School, Goethe-University

Additional functions:

Spokes person DFG collaborative research centre 1531
“Damage control by the stroma-vascular compartment”

Member steering committee DFG transregio
collaborative research centre 276 “Non-coding RNA in
cardiovascular system”

Member board of directors, DFG excellence cluster
Cardio-Pulmonary System.

Editor “Brandes, Lang, Schmidt – Physiologie des
Menschen”, Springer-Verlag

DZHK German Center for Heart and Vascular Disease,
Vice speaker Partner Site Rhine-Main

Secretary general, German Physiological Society

Chairman Central research facility, Faculty of Medicine,
Goethe-University, Frankfurt

Director teaching program of Physiology, Goethe-
University

Awards and Honors

Fellow of the American Heart Assoc since 2001, Dissertation award, German Soc. of Angiology, Hermann-Rhein-Award of the German Soc. of Microcirculation and Vascular Biology, Albert Fränkel Award, German Cardiac Society, Forßman-Award, Foundation Cardiology 2000, Fick-Award, German Physiological Society, Fellow of the Society of Redox Biology and Medicine since 2013, Dr. Robert-Pfleger-Award 2020

Editorial Board Memberships

Circulation Research, Arteriosclerosis Thrombosis and Vascular Biology, Redox Biology, Cardiovascular Research, Am J Physiol, Vasa, Cardiovascular Pharmacology and others

Publications

>270 publications in international peer review journals. >27,000 citations, h-Index 87 (Google Scholar)

Area of Expertise

Vascular physiology, endothelial biology, angiogenesis, atherosclerosis: Vascular epigenetics, redox biology and redox proteomics, metabolomics and lipid signaling.

Selected Publications of last 10 year

1. Leisegang MS, Bains JK, Seredinski S, Oo JA, Krause NM, Kuo C-C, Günther S, Sentürk Cetin N, Warwick T, Cao C, Boos F, Izquierdo Ponce J, Haydar S, Bednarz R, Valasarajan C, Fuhrmann DC, Preussner J, Looso M, Pullamsetti SS, Schulz MH, Jonker HRA, Richter C, Rezende F, Gilsbach R, Pflüger-Müller B, Wittig I, Grummt I, Ribarska T, Costa IG, Schwalbe H, **Brandes RP**. HIF1 α -AS1 is a DNA:DNA:RNA triplex-forming lncRNA interacting with the HUSH complex. **Nature communications**. 2022;13:6563.
2. Oo JA, Pálfi K, Warwick T, Wittig I, Prieto-Garcia C, Matkovic V, Tomašković I, Boos F, Izquierdo Ponce J, Teichmann T, Petriukov K, Haydar S, Maegdefessel L, Wu Z, Pham MD, Krishnan J, Baker AH, Günther S, Ulrich HD, Dikic I, Leisegang MS, **Brandes RP**. Long non-coding RNA PCAT19 safeguards DNA in quiescent endothelial cells by preventing uncontrolled phosphorylation of RPA2. **Cell reports**. 2022;41:111670.
3. Buchmann GK, Schürmann C, Spaeth M, Abplanalp W, Tombor L, John D, Warwick T, Rezende F, Weigert A, Shah AM, Hansmann M-L, Weissmann N, Dimmeler S, Schröder K, **Brandes RP**. The hydrogen-peroxide producing NADPH oxidase 4 does not limit neointima development after vascular injury in mice. **Redox biology**. 2021;45:102050.
4. Helfinger V, Freiherr von Gall F, Henke N, Kunze MM, Schmid T, Rezende F, Heidler J, Wittig I, Radeke HH, Marschall V, Anderson K, Shah AM, Fulda S, Brüne B, **Brandes RP**, Schröder K. Genetic deletion of Nox4 enhances cancerogen-induced formation of solid tumors. **Proceedings of the National Academy of Sciences of the United States of America**. 2021;118.
5. Pflüger-Müller B, Oo JA, Heering J, Warwick T, Proschak E, Günther S, Looso M, Rezende F, Fork C, Geisslinger G, Thomas D, Gurke R, Steinhilber D, Schulz M, Leisegang MS, **Brandes RP**. The endocannabinoid anandamide has an anti-inflammatory effect on CCL2 expression in vascular smooth muscle cells. **Basic research in cardiology**. 2020;115:34.
6. Seimetz M, Sommer N, Bednorz M, Pak O, Veith C, Hadzic S, Gredic M, Parajuli N, Kojonazarov B, Kraut S, Wilhelm J, Knoepp F, Henneke I, Pichl A, Kanbagli ZI, Scheibe S, Fysikopoulos A, Wu C-Y, Klepetko W, Jaksch P, Eichstaedt C, Grünig E, Hinderhofer K, Geiszt M, Müller N, Rezende F, Buchmann G, Wittig I, Hecker M, Hecker A, Padberg W, Dorfmueller P, Gattenlöhner S, Vogelmeier CF, Günther A, Karnati S, Baumgart-Vogt E, Schermuly RT, Ghofrani HA, Seeger W, Schröder K, Grimminger F, **Brandes RP**, Weissmann N. NADPH oxidase subunit NOXO1 is a target for emphysema treatment in COPD. **Nature metabolism**. 2020;2:532–546.
7. Leisegang MS, Bibli S-I, Günther S, Pflüger-Müller B, Oo JA, Höper C, Seredinski S, Yekelchik M, Schmitz-Rixen T, Schürmann C, Hu J, Looso M, Sigala F, Boon RA, Fleming I, **Brandes RP**. Pleiotropic effects of laminar flow and statins depend on the Krüppel-like factor-induced lncRNA MANTIS. **European heart journal**. 2019;40:2523–2533.
8. Epah J, Pálfi K, Dienst FL, Malacarne PF, Bremer R, Salamon M, Kumar S, Jo H, Schürmann C, **Brandes RP**. 3D Imaging and Quantitative Analysis of Vascular Networks: A Comparison of Ultramicroscopy and Micro-Computed Tomography. **Theranostics**. 2018;8:2117–2133.
9. Hitzel J, Lee E, Zhang Y, Bibli SI, Li X, Zukunft S, Pflüger B, Hu J, Schürmann C, Vasconez AE, Oo JA, Kratzer A, Kumar S, Rezende F, Josipovic I, Thomas D, Giral H, Schreiber Y, Geisslinger G, Fork C, Yang X, Sigala F, Romanoski CE, Kroll J, Jo H, Landmesser U, Lusis AJ, Namgaladze D, Fleming I, Leisegang MS, Zhu J, **Brandes RP**. Oxidized phospholipids regulate amino acid metabolism through MTHFD2 to facilitate nucleotide release in endothelial cells. **Nature communications**. 2018;9:2292.
10. Schröder K, Weissmann N, **Brandes RP**. Organizers and activators: Cytosolic Nox proteins impacting on vascular function. **Free radical biology & medicine**. 2017;109:22–32.
11. **Brandes RP**, Harenkamp S, Schürmann C, Josipovic I, Rashid B, Rezende F, Löwe O, Moll F, Epah J, Eresch J, Nayak A, Kopaliani I, Penski C, Mittelbronn M, Weissmann N, Schröder K. The Cytosolic NADPH Oxidase Subunit NoxO1 Promotes an Endothelial Stalk Cell Phenotype. **Arteriosclerosis, thrombosis, and vascular biology**. 2016;36:1558–1565.
12. Wong MSK, Leisegang MS, Kruse C, Vogel J, Schürmann C, Dehne N, Weigert A, Herrmann E, Brüne B, Shah AM, Steinhilber D, Offermanns S, Carmeliet G, Badenhop K, Schröder K, **Brandes RP**. Vitamin D promotes vascular regeneration. **Circulation**. 2014;130:976–986.
13. **Brandes RP**, Weissmann N, Schröder K. Nox family NADPH oxidases: Molecular mechanisms of activation. **Free radical biology & medicine**. 2014;76:208–226.

Links:

[CRC1531: Damage control by the stroma-vascular compartment](#)

[CRC TRR267 Non-coding RNA in the cardiovascular system](#)

[Vascular Research Centre](#)

[Google Scholar Profile](#)

[Pubmed](#)

[Wikipedia](#)