

Curriculum Vitae

Natascha Sommer Professor, Dr. med.
d.o.b. April, 29th, 1974, in Nuremberg, Germany

University Education

2018 Habilitation Internal Medicine, JLU
2011 PhD, JLU
2004 Doctorate Medicine, FAU Erlangen-Nürnberg
1995–2003 Studies of Medicine, Friedrich Alexander University Erlangen-Nürnberg (FAU) and Justus Liebig University Giessen (JLU)

Scientific Career

Since 2022 Professor of "Mitochondrial signalling in pulmonary vascular and airway diseases"
Since 2021 Head of the outpatient clinic, Medical Clinic II, JLU
2019 Board certification „Pneumology“ (LÄK Hessen)
Since 2018 Junior Area Leader of the Excellence Cluster “Cardiopulmonary System (CPI)”: “Redox regulation: ischemia, hypoxia, and reactive oxygen species”
2014 Board Certification „Internal Medicine" (LÄK Hessen)
Since 2013 Member of the COST-Initiative „MitoEagle“
Member of the German Centre for Lung Research (DZL)
Member of “Universities of Giessen and Marburg Lung Center (UGLMC)”
2005 - 2011 International PhD program at the Justus Liebig University
2004 - 2007 International Graduate Program “Molecular Biology and Medicine of the Lung” (MBML) as part of the “Giessen Graduate School of the Life Sciences (GGL)”
2004–2014 Internship and Residency, Department of Medicine, JLU

Awards and Honors

2018 Basic research award of the German Society of Pneumology

Citation Record

Total citations: 2,214; h-index:24; (Research Gate August 6th, 2022)

Top-10 selected Publications

Veith C, Vartürk-Özcan I, Wujak M, ..., Kwapiszewska G, **Sommer N**, Weissmann N. SPARC, a Novel Regulator of Vascular Cell Function in Pulmonary Hypertension. **Circulation** 2022; 145(12):916-933. doi: [10.1161/CIRCULATIONAHA.121.057001](https://doi.org/10.1161/CIRCULATIONAHA.121.057001).

Gierhardt M, Pak O, Sydykov A, ..., Weissmann N, Heger J, **Sommer N**. Genetic deletion of p66shc and/or cyclophilin D results in decreased pulmonary vascular tone. **Cardiovasc Res** 2022; 118(1):305-315. doi: [10.1093/cvr/cvaa310](https://doi.org/10.1093/cvr/cvaa310).

Seimetz M, **Sommer N***, Bednorz M, ..., Grimminger F, Brandes RP, Weissmann N. NADPH oxidase subunit NOXO1 is a target for emphysema treatment in COPD. **Nat Metab** 2020; 2(6):532-546. *equal contribution. doi: [10.1038/s42255-020-0215-8](https://doi.org/10.1038/s42255-020-0215-8).

Sommer N, Alebrahimdehkordi N, Pak O, ..., Jacobs HT, Weissmann N, Szibor M. Bypassing mitochondrial complex III using alternative oxidase inhibits acute pulmonary oxygen sensing. **Sci Adv** 2020; 6(16):eaba0694. doi: [10.1126/sciadv.aba0694](https://doi.org/10.1126/sciadv.aba0694).

Pichl A, **Sommer N***, Bednorz M, Seimetz M, Hadzic S, Kuhnert S, Kraut S, Roxlau ET, Kojonazarov B, Wilhelm J, Gredic M, Gall H, Tello K, Richter MJ, Pak O, Petrovic A, Hecker M, Schermuly RT, Grimminger F, Seeger W, Ghofrani HA, Weissmann N. Riociguat for treatment of pulmonary hypertension in COPD: a translational study. **Eur Respir J** 2019; 53(6):1802445. *equal contribution. doi: [10.1183/13993003.02445-2018](https://doi.org/10.1183/13993003.02445-2018).

Pak O, Scheibe S, Esfandiary A, Gierhardt M, Sydykov A, Logan A, Fysikopoulos A, Veit F, Hecker M, Kroschel F, Quanz K, Erb A, Schäfer K, Fassbinder M, Alebrahimdehkordi N, Ghofrani HA, Schermuly RT, Brandes RP, Seeger W, Murphy MP, Weissmann N, **Sommer N**. Impact of the mitochondria-targeted antioxidant MitoQ on hypoxia-induced pulmonary hypertension. **Eur Respir J** 2018; 1:1701024. doi: [10.1183/13993003.01024-2017](https://doi.org/10.1183/13993003.01024-2017).

Sommer N, Hüttemann M, Pak O, Scheibe S, Knoepp F, Sinkler C, Malczyk M, Gierhardt M, Esfandiary A, Kraut S, Jonas F, Veith C, Aras S, Sydykov A, Alebrahimdehkordi N, Giehl K, Hecker M, Brandes RP, Seeger W, Grimminger F, Ghofrani HA, Schermuly RT, Grossman LI, Weissmann N. Mitochondrial Complex IV Subunit 4 Isoform 2 Is Essential for Acute Pulmonary Oxygen Sensing. **Circ Res** 2017; 121(4):424-438. doi: [10.1161/CIRCRESAHA.116.310482](https://doi.org/10.1161/CIRCRESAHA.116.310482).

Bakr A, Pak O, Taye A, Hamada F, Hemeida R, Janssen W, Gierhardt M, Ghofrani HA, Seeger W, Grimminger F, Schermuly RT, Witzernath M, Brandes RP, Huang N, Cooke JP, Weissmann N, **Sommer N**. Effects of dimethylarginine dimethylaminohydrolase-1 overexpression on the response of the pulmonary vasculature to hypoxia. **Am J Respir Cell Mol Biol** 2013; 49(3):491-500. doi: [10.1165/rcmb.2012-0330OC](https://doi.org/10.1165/rcmb.2012-0330OC).

Pak O, **Sommer N***, Hoeres T, Bakr A, Waisbrod S, Sydykov A, Haag D, Esfandiary A, Kojonazarov B, Veit F, Fuchs B, Weisel FC, Hecker M, Schermuly RT, Grimminger F, Ghofrani HA, Seeger W, Weissmann N. Mitochondrial hyperpolarization in pulmonary vascular remodeling. Mitochondrial uncoupling protein deficiency as disease model. **Am J Respir Cell Mol Biol** 2013; 49(3):358-67. *equal contribution. doi: [10.1165/rcmb.2012-0361OC](https://doi.org/10.1165/rcmb.2012-0361OC).

Sommer N, Pak O, Schörner S, Derfuss T, Krug A, Gnaiger E, Ghofrani HA, Schermuly RT, Huckstorf C, Seeger W, Grimminger F, Weissmann N. Mitochondrial cytochrome redox states and respiration in acute pulmonary oxygen sensing. **Eur Respir J** 2010; 36(5):1056-66. doi: [10.1183/09031936.00013809](https://doi.org/10.1183/09031936.00013809).