

PD Dr. med. Sven Rupprecht M.Sc.* 30.01. 1977

Interdisciplinary Centre for Sleep and Ventilatory Medicine
Hans Berger Department for Neurology
Jena University Hospital
Am Klinikum 1
D-07747 Jena, Germany



Academic Education

1996-2004 Medical school, Universities of Jena and Basel

Academic Degree

2004 Dr. med. Dept. for Neurophysiology, Friedrich-Schiller-University Jena, Germany
2012 M.Sc. "Clinical Research and Translational Medicine", University Leipzig, Germany
2022 Habilitation and Venia Legendi for Neurology, Friedrich-Schiller-University Jena, Germany

Professional Career

May 2004 License to practice medicine
2004 Residency in Sleep Medicine and Internal Medicine, Barmelweid Hospital, Switzerland
2004-2010 Residency in Neurology, Department of Neurology, University Hospital Jena, Germany
2010-2012 Head of a Clinical Research Group, BMBF IFB Jena "Center for Sepsis Control and Care" University Hospital Jena, Germany
2010-2012 Postgraduate Study (M.Sc.) "Clinical Research and Translational Medicine, University Leipzig, Germany
2012 Visiting Research Fellowship "Center for the Study of Fetal Programming" Dept. of Animal Science, University of Wyoming, Laramie, WY, USA
Since 2012 Head of the Research Group "Sleep" Department of Neurology, University Hospital Jena, Germany
2014 Visiting Research Fellowship, Division of Reproductive Research, University of Texas Health Science Center, San Antonio, TX, USA
2015 Somnology-Certificate by the German Society of Sleep Medicine and Research
2016-2018 Residency in Psychiatry, Asklepios-Hospital Stadtroda
Since 2017 Research Fellowship of the Else-Kroener-College "Anti-Age"
Since 2019 Co-Chair of the Interdisciplinary Centre for Sleep and Ventilatory Medicine, Department of Neurology, University Hospital Jena, Germany
2020 Board Certification in Neurology
2023 Polysomnography-Certificate by the German Society for Clinical Neurophysiology

Administrative Experience

Since 2005 Member German Society of Sleep Medicine and Research
Since 2006 Member of the Task Force "Motor Function", German Society of Sleep Medicine and Research
Since 2008 Member of the Task Force "Polysomnography", German Society of Clinical Neurophysiology
Since 2014 Member of the German RBD-Study Group
Since 2017 Member of the International RBD-Study Group
Since 2018 Member of Central German Sleep Society
Since 2018 Member of the Task Force "Central Disorders of Hypersomnolence", German Society of Sleep Medicine and Research

Honours and Awards and Functions

2010 Theodor Ziehen Award of the Thuringian Neurological Society

- 2011 Poster Award on the Annual Meeting of the German Society for Sleep Research and Medicine
- 2012 Poster Award on the Annual Meeting of the American Society for Gynecologic Investigation
- 2018 Poster Award on the Annual Meeting of the German Society for Physical Medicine and Rehabilitation

Research Topics

Sleep and Neurodegeneration
 Autonomic Nervous System
 Fetal Programming of Diseases in later Life

Funding since 2013 (Principal Investigator)

- 2010-2013 BMBF (Ministry of Education and Research)- grant "Obstructive Sleep Apnea postoperative Risk Stratification Trial" Multicenter study FKZ: 01EO1002
- 2012-2015 Industrial grant "Sleep and Quality of Life in Multiple Sclerosis" Multicenter study
- 2012-2017 Industrial grant "Sleep and circadian Rhythms in Multiple Sclerosis"
- 2012-2018 Industrial grant "Cytokine state, cognitive decline and cortical degeneration in MS patients"
- 2016-2019 Else Kroener Fresenius Foundation "Sleep disturbance and the risk for cognitive decline"
- 2022 Thüringer Aufbaubank grant, industrial grant „Creation of a normative sample for the falling stick test“
- 2022 Thüringer Aufbaubank grant, industrial grant „Validation of the falling stick test as screening test device for prodromal neurodegenerative diseases“

Publications

Anegroaie, P., M. G. Frasch, **Rupprecht S.**, I. Antonow-Schlorke, T. Muller, H. Schubert, O. W. Witte and M. Schwab (2017). "Development of somatosensory-evoked potentials in foetal sheep: effects of betamethasone." *Acta Physiol (Oxf)* **220**(1): 137-149.

Bramer, D., A. Gunther, S. **Rupprecht, S.** Nowack, J. Adam, F. Meyer, M. Schwab, R. Surber, O. W. Witte, H. Hoyer and D. Hoyer (2019). "Very Low Frequency Heart Rate Variability Predicts the Development of Post-Stroke Infections." *Transl Stroke Res.*

Chu M, Xie K, Zhang J, Chen Z, Ghorayeb I, **Rupprecht S**, Reder AT, Garay A, Honda H, Nagayama M, Shi Q, Zhan S, Nan H, Zhang J, Guan H, Cui L, Guo Y, Rosa-Neto P, Gauthier S, Wang J, Dong X, Wu L (2022). "Proposal of new diagnostic criteria for fatal familial insomnia." *J Neurol.* 269(9):4909-4919

de la Motte T, Schwab M, Schultze T, Witte OW, **Rupprecht S.** (2019) „ An 82-Year-Old Man With Sleep-Onset Insomnia, Breathing Arrest, and Heart Failure." *Chest.* **156**(5):e95-e98.

Dahms, C., A. Guenther, M. Schwab, T. Schultze, S. Nowack, D. Hoyer, J. Ehrhardt, O. W. Witte, G. Mayer and **Rupprecht S.** (2016). "Dysautonomia in prodromal alpha-synucleinopathy: peripheral versus central autonomic degeneration." *Eur J Neurol.*

Dreiling, M., S. Bischoff, R. Schiffner, **S. Rupprecht**, M. Kiehnopf, H. Schubert, O. W. Witte, P. W. Nathanielsz, M. Schwab and F. Rakers (2016). "Stress-induced decrease of uterine blood flow in sheep is mediated by alpha 1-adrenergic receptors." *Stress* **19**(5): 547-551.

Dreiling, M., R. Schiffner, S. Bischoff, **S. Rupprecht**, N. Kroegel, H. Schubert, O. W. Witte, M. Schwab and F. Rakers (2018). "Impact of chronic maternal stress during early gestation on maternal-fetal stress transfer and fetal stress sensitivity in sheep." *Stress* **21**(1): 1-10.

Ehrhardt, J., M. Schwab, S. Finn, A. Guenther, T. Schultze, O. W. Witte and **S. Rupprecht** (2015). "Sleep apnea and asymptomatic carotid stenosis: a complex interaction." Chest **147**(4): 1029-1036.

Franzke, P., A. Bitsch, M. Walther, R. Schiffner, **S. Rupprecht**, M. Rasche, G. F. Volk, O. W. Witte, P. Schlattmann, O. Guntinas-Lichius, G. Hagemann, M. Schwab and F. Rakers (2018). "Weather, Weather Changes and the Risk of Bell's Palsy: A Multicenter Case-Crossover Study." Neuroepidemiology **51**(3-4): 207-215.

Hagemeyer, B., S. Salomo, C. Engelhardt, F. J. Neyer and **S. Rupprecht** (2019). "Assessing Individual Differences in the Affective Experience of Dreams: The Jena Dream Inventory-Affect Scales (JeDI-A)." Assessment: 1073191119847767.

Hermes M, Antonow-Schlorke I, Hollstein D, Kuehnel S, Rakers F, Frauendorf V, Dreiling M, **Rupprecht S**, Schubert H, Witte OW, Schwab M.(2019). Maternal psychosocial stress during early gestation impairs fetal structural brain development in sheep Stress. **30**:1-10..

Koranyi, N., M. Meinhard, P. Bublak, O. W. Witte and **S. Rupprecht** (2018). "Automatic affective responses towards the bed in patients with primary insomnia: evidence for a negativity bias." J Sleep Res **27**(2): 215-219.

Muller, J. J., M. Schwab, C. R. Rosenfeld, I. Antonow-Schlorke, P. W. Nathanielsz, F. Rakers, H. Schubert, O. W. Witte and **S. Rupprecht** (2017). "Fetal Sheep Mesenteric Resistance Arteries: Functional and Structural Maturation." J Vasc Res **54**(5): 259-271.

Nisser J, Derlien S, Bublak P, Schwab M, Witte OW, Kesper K, Schultze T, **Rupprecht S**. (2022). "Systematic quantitative assessment of motor function in clinically isolated REM sleep behaviour disorder: A diagnostic window into early alpha-synucleinopathies." J Sleep Res **31**(2): e13459

Rakers, F., S. Bischoff, R. Schiffner, M. Haase, **S. Rupprecht**, M. Kiehntopf, W. N. Kuhn-Velten, H. Schubert, O. W. Witte, M. J. Nijland, P. W. Nathanielsz and M. Schwab (2015). "Role of catecholamines in maternal-fetal stress transfer in sheep." Am J Obstet Gynecol **213**(5): 684 e681-689.

Rakers, F., V. Frauendorf, **S. Rupprecht**, R. Schiffner, S. J. Bischoff, M. Kiehntopf, P. Reinhold, O. W. Witte, H. Schubert and M. Schwab (2013). "Effects of early- and late-gestational maternal stress and synthetic glucocorticoid on development of the fetal hypothalamus-pituitary-adrenal axis in sheep." Stress **16**(1): 122-129.

Rakers, F., **S. Rupprecht**, M. Dreiling, C. Bergmeier, O. W. Witte and M. Schwab (2017). "Transfer of maternal psychosocial stress to the fetus." Neurosci Biobehav Rev.

Rakers, F., R. Schiffner, **S. Rupprecht**, A. Brandstadt, O. W. Witte, M. Walther, P. Schlattmann and M. Schwab (2016). "Rapid weather changes are associated with increased ischemic stroke risk: a case-crossover study." Eur J Epidemiol **31**(2): 137-146.

Rakers, F., M. Walther, R. Schiffner, **S. Rupprecht**, M. Rasche, M. Kockler, O. W. Witte, P. Schlattmann and M. Schwab (2017). "Weather as a risk factor for epileptic seizures: A case-crossover study." Epilepsia.

Rasche, M., M. Walther, R. Schiffner, N. Kroegel, **S. Rupprecht**, P. Schlattmann, P. C. Schulze, P. Franzke, O. W. Witte, M. Schwab and F. Rakers (2018). "Rapid increases in nitrogen oxides are associated with acute myocardial infarction: A case-crossover study." Eur J Prev Cardiol **25**(16): 1707-1716.

Rakers F, Schleußner E, Muth I, Hoyer D, **Rupprecht S**, Schiecke K, Groten T, Dreiling M, Kozik V, Schwab M, Hoyer H, Ligges C (2022). "Association between antenatal glucocorticoid exposure and the activity of the stress system, cognition, and behavior in 8- to 9-year-old children: A prospective observational study." Acta Obstet Gynecol Scand **101**(9):996-1006.

Richter, F., **S. Rupprecht**, A. Lehmenkuhler and H. G. Schaible (2003). "Spreading depression can be elicited in brain stem of immature but not adult rats." J Neurophysiol **90**(4): 2163-2170.

Rupprecht, S. (2016). "Reply." J Vasc Surg **64**(5): 1550-1551.

Rupprecht, S., S. Finn, J. Ehrhardt, D. Hoyer, T. Mayer, J. Zanow, A. Guenther and M. Schwab (2016). "Autonomic outcome is better after endarterectomy than after stenting in patients with asymptomatic carotid stenosis." J Vasc Surg **64**(4): 975-984.

Rupprecht, S., S. Finn, D. Hoyer, A. Guenther, O. W. Witte, T. Schultze and M. Schwab (2019). "Association Between Systemic Inflammation, Carotid Arteriosclerosis, and Autonomic Dysfunction." Transl Stroke Res.

Rupprecht, S., K. Franke, S. Fitzek, O. W. Witte and G. Hagemann (2007). "Levetiracetam as a treatment option in non-convulsive status epilepticus." Epilepsy Res **73**(3): 238-244.

Rupprecht, S., A. Grimm, T. Schultze, J. Zinke, P. Karvouniari, H. Axer, O. W. Witte and M. Schwab (2013). "Does the clinical phenotype of fatal familial insomnia depend on PRNP codon 129 methionine-valine polymorphism?" J Clin Sleep Med **9**(12): 1343-1345.

Rupprecht, S., G. Hagemann, O. W. Witte and M. Schwab (2009). "Alveolar hypoventilation as an early symptom of muscle weakness in facioscapulohumeral muscular dystrophy." Sleep Med **10**(5): 592-593.

Rupprecht, S., D. Hoyer, B. Brehm, O. W. Witte and M. Schwab (2011). "REM sleep related bradyarrhythmia syndrome: Vagal overactivity or dysfunction of the cardiac conduction system?" Sleep Med **12**(3): 308.

Rupprecht, S., D. Hoyer, G. Hagemann, O. W. Witte and M. Schwab (2010). "Central sleep apnea indicates autonomic dysfunction in asymptomatic carotid stenosis: a potential marker of cerebrovascular and cardiovascular risk." Sleep **33**(3): 327-333.

Rupprecht, S., J. Hutschenreuther, B. Brehm, H. R. Figulla, O. W. Witte and M. Schwab (2008). "Causality in the relationship between central sleep apnea and paroxysmal atrial fibrillation." Sleep Med **9**(4): 462-464.

Rupprecht, S., D. Schonefeld, N. Kroegel, O. W. Witte, M. Schwab and E. Paditz (2019). "To rout or snort in the sleeper: a detailed medical description of sleep disordered breathing and its consequences by Georg Grau in 1688." Eur Respir J **53**(5).

Rupprecht, S., T. Schultze, A. Nachtmann, A. J. Rastan, T. Doerst, M. Schwab, O. W. Witte, S. Rohe, I. Zwacka and H. Hoyer (2017). "Impact of sleep disordered breathing on short-term post-operative outcome after elective coronary artery bypass graft surgery: a prospective observational study." Eur Respir J **49**(4).

Rupprecht, S., M. Schwab, C. Fitzek, O. W. Witte, C. Terborg and G. Hagemann (2010). "Hemispheric hypoperfusion in postictal paresis mimics early brain ischemia." Epilepsy Res **89**(2-3): 355-359.

Rupprecht, S., B. Walther, H. Gudziol, J. Steenbeck, M. Freesmeyer, O. W. Witte, A. Gunther and M. Schwab (2013). "Clinical markers of early nigrostriatal neurodegeneration in idiopathic rapid eye movement sleep behavior disorder." Sleep Med **14**(11): 1064-1070.

Rupprecht, S., O. W. Witte and M. Schwab (2012). "Gastroesophageal reflux in differential diagnosis of unclear nocturnal paroxysmal motor events." Sleep Med **13**(9): 1205-1206.

Schiffner, R., S. J. Bischoff, T. Lehmann, F. Rakers, **S. Rupprecht**, G. Matziolis, H. Schubert, M. Schwab, O. Huber, C. Lemke and M. Schmidt (2018). "Underlying mechanism of subcortical brain protection during hypoxia and reoxygenation in a sheep model - Influence of alpha1-adrenergic signalling." PLoS One **13**(5): e0196363.

Schiffner, R., S. J. Bischoff, T. Lehmann, F. Rakers, **S. Rupprecht**, J. Reiche, G. Matziolis, H. Schubert, M. Schwab, O. Huber and M. Schmidt (2017). "Redistribution of Cerebral Blood Flow during Severe Hypovolemia and Reperfusion in a Sheep Model: Critical Role of alpha1-Adrenergic Signaling." Int J Mol Sci **18**(5).

Ruiz-Rizzo AL, Bublak P, Kluckow S, Finke K, Gaser C, Schwab M, Güllmar D, Müller HJ, Witte OW, **Rupprecht S** (2022). „Neural distinctiveness of fatigue and low sleep quality in multiple sclerosis.“ Eur J Neurol 29(10):3017-3027

Künstler ECS, Schwab M, **Rupprecht S** (2022). „A 37-Year-Old Man With Structural Focal Epilepsy and Paroxysmal Nocturnal Breathing Arrests“ Chest **161**(5): e309-e312.

Zinke, J., **S. Rupprecht**, M. Schwab and G. Hagemann (2010). "Nocturnal groaning (catathrenia) and epilepsy." Epileptic Disord **12**(2): 136-137.