

## The Nasal-Cycle: A Novel Path to The Brain

Initiative: "Experiment!" (beendet)

Ausschreibung: Explorative Phase

Bewilligung: 18.12.2019

Laufzeit: 1 Jahre 6 Monate

This project addresses the question whether something as simple as which nostril we primarily breathe through, left or right, have major impact on our health and well-being? Traditional Indian medicine suggests that shifts from left to right nostril, known as the nasal-cycle, are essential for health. Western medicine has largely overlooked this possibility so far. Therefore, this project examines the cycle with state-of-the-art neuroscientific tools, probes the brain mechanisms of this phenomenon, and builds a novel device allowing nasal-cycle measurement and modification. Preliminary data suggest impact on brain mechanisms of autonomic nervous system (ANS) regulation, which is a major component in several disease conditions. In this proposal, novel device for proof-of-concept experiments in attention-deficit hyper-activity disorder (ADHD) will be used. The long-term vision, however, goes beyond ADHD and aims at a powerful novel measure in medicine, with contributions not only to diagnosis and prognosis, but also to treatment of assorted diseases related to ANS imbalance.

### Projektbeteiligte

#### **Prof. Dr. Thomas Hummel**

Technische Universität Dresden  
Medizinische Fakultät  
Department of Otorhinolaryngology  
Zentrum für Riechen und Schmecken  
Dresden

#### **Prof. Dr. Noam Sobel**

The Weizmann Institute of Science  
Department of Neurobiology  
Rehovot  
Israel

