Prof. Dr. med. Tobias Moser

GENERAL INFORMATION

Date of birth:	24.03.1968
Gender:	male
Main Address of institution:	Institute for Auditory Neuroscience University Medical Center Göttingen Robert-Koch-Str. 40 37075 Göttingen
Tel.:	+49 (0)551 39 63070
E-mail:	tmoser@gwdg.de

Current position: Professor (W3) of Auditory Neuroscience, Director Institute for Auditory Neuroscience, University Medical Center Göttingen.

ACADEMIC EDUCATION

1990 – 1994	Medical Training, University of Jena.
1988 – 1990	Medical Training, University of Leipzig

SCIENTIFIC DEGREES

2003	Habilitation, Otolaryngology, University Medical Center Göttingen (Prof. W. Steiner).
1995	Medical degree (Dr. med.), University of Jena (Prof. C. Steinhäuser, Prof. Erwin Neher).

PROFESSIONAL CAREER AFTER COMPLETING DEGREE

2019	Co-founder of OptoGenTech GmbH startup company
Since 2018	Adjunct Professor Medical University Innsbruck
Since 2017	Adjunct Professor German Primate Center
Since 2015	Founding Director, Institute for Auditory Neuroscience, UMG Joint appointment Dept. of Otolaryngology, UMG
Since 2007	Professor of Auditory Neuroscience, University Medical Center Göttingen.
Since 2005	Associate Professor of Experimental and Clinical Audiology, University Medical Center Göttingen (tenured, 2007).
Since 2001	Research Group Leader, Department of Otolaryngology, University Medical Center Göttingen.
1997 – 2002	Residency in Otolaryngology, Department of Otolaryngology, University Medical Center Göttingen, Board Certification in 2002.
1997 – 2000	Junior Research Group Leader, Dept. of Membrane Biophysics, Max Planck Institute for Biophysical Chemistry, Göttingen.
1994 – 1997	Postdoctoral Fellow, Department of Membrane Biophysics, Max Planck Institute for Biophysical Chemistry, Göttingen.

MISCELLANEOUS

Fellowships, Awards and Honors (Selected)

2019	Guyot Prize of the University of Groningen.
2017	Lower Saxony Science Prize ("Wissenschaftspreis Niedersachsen").
2017	Ernst Jung Prize for Medicine.
2016	Member Leopoldina, German National Academy of Sciences
2015	Fellow of the Max-Planck-Society
2015	ERC advanced grant "OptoHear"
2015	Gottfried Wilhelm Leibniz Award of the German Research Foundation
2009	Fernandez-Lindsay Lecture, University of Chicago.
2005	Habilitation Award of the School of Medicine, University of Göttingen.
2004	Human Frontier Science Program (HFSP) grant award.
2004	Meyer-zum-Gottesberge Award of the German Society for Audiology.
1997	Marius-Tausk Award of the German Society for Endocrinology.
1996	Thesis Award 1996 of the University of Jena.
1993	Fellow of the "Studienstiftung des deutschen Volkes".

Further Scientific Activities (Selected)

Since 2019	Coordinator of the Cluster of Excellence EXC 2067
Since 2016	Elected Member of the German Research Foundation Review Board 205, Medicine
Since 2013 - 2015	President of the German Society for Audiology.
Since 2011	Coordinator of the Collaborative Research Center 889 "Cellular Mechanisms of Sensory Processing".
Since 2007	Coordinator of the Sensory and Motor Neuroscience PhD program and board member of the Göttingen Graduate School for Neurosciences, Biophysics, and Molecular Biology (GGNB).

SELECTED PUBLICATIONS *(with scientific assurance)*

1) Dieter A, Duque Afonso CJ, Rankovic V, Jeschke M, **Moser T** (2019). Near physiological spectral selectivity of cochlear optogenetics. Nat Commun, 10: 1962.

2) Wrobel C, Dieter A, Huet A, Keppeler D, Duque-Afonso CJ, Vogl C, Hoch G, Jeschke M, **Moser T** (2018). Optogenetic stimulation of cochlear neurons activates the auditory pathway and restores auditory-driven behavior in deaf adult gerbils. Sci Transl Med 10, eaao0540.

3) Mager T, Lopez de la Morena D, Senn V, Schlotte J, D Errico A, Feldbauer K, Wrobel C, Jung S, Bodensiek K, Rankovic V, Browne L, Huet A, Jüttner J, Wood PG, Letzkus JJ, **Moser T**, Bamberg E (2018). High frequency neural spiking and auditory signaling by ultrafast red-shifted optogenetics. Nat Commun 9:1750.

4) Neef J, Ohn TL, Urban NT, Frank T, Jean P, Hell SW, Willig KI, **Moser T** (2018). Quantitative optical nanophysiology of Ca^{2+}-signaling at inner hair cell active zones. Nat commun 18;9(1):290.

5) Ohn TZ, Rutherford MA, Jing Z, Jung SY, Duque-Afonso CJ, Hoch G, Picher MM, Scharinger A, Strenzke N, **Moser T** (2016) Hair cells employ active zones with different voltage-dependence of Ca^{2+}-influx to decompose sounds into complementary neural codes. PNAS, 113(32):E4716-25.

6) Hernandez VH, Gehrt A, Reuter K, Jing Z, Jeschke M, Mendoza Schulz A, Hoch G, Bartels M, Vogt G, Garnham CW, Yawo H, Fukazawa Y, Augustine GJ, Bamberg E, Kügler S, Salditt T, de Hoz, L, Strenzke N, **Moser T** (2014). Optogenetic stimulation of the auditory pathway. J Clin Invest, 124(3): 1114-29.

7) Chapochnikov NM, Takago H, Huang CH, Pangršič T, Khimich, D, Neef J, Auge E, Göttfert F, Hell SW, Wichmann C, Wolf F, **Moser T** (2014). Uniquantal Release through a Dynamic Fusion Pore Is a Candidate Mechanism of Hair Cell Exocytosis. Neuron, 83: 1–15.

8) Pangršič T, Lasarow L, Reuter K, Takago H, Schwander M, Riedel D, Frank T, Tarantino LM, Bailey JS, Strenzke N, Müller U, Brose N, Reisinger E*, **Moser T*** (2010). Hearing requires otoferlin-dependent efficient replenishment of synaptic vesicles in hair cells. Nat Neurosci 13, 869-76

9) Meyer AC, Frank T, Khimich D, Hoch G, Riedel D, Chapochnikov NM, Yarin YM, Harke B, Hell SW, Egner A, **Moser T** (2009). Tuning of synapse number, structure and function in the cochlea. Nat Neurosci 12:444–453.

10) Khimich D, Nouvian R, Pujol R, tom Dieck S, Egner A, Gundelfinger ED, **Moser T** (2005). Hair cell synaptic ribbons are essential for synchronous auditory signalling. Nature 434:889–894.