Anand Goswami

Personal Information

Name	Anand Goswami, PhD, Group leader
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Professional Positions

Since 2011	Group leader, Permanent position, TVL-14, Institute of Neuropathology, Director: Univ.-Prof. Dr. J. Weis, RWTH Aachen.
2007-2011	Research scientist, Laboratory for Structural Neuropathology BSI, RIKEN, Tokyo Japan. Head: Dr. Nobuyuki Nukina.
2002-2007	Sr. research fellow, Laboratory for molecular neuroscience. NBRC, Gurgaon, India. Supervisor: Prof. Nihar Ranjan Jana
1999-2001	Project asst., Centre for Cellular and Molecular Biology, CCMB, Hyderabad. Supervisor: Dr. Laljee Singh.

Academic Qualification and Education

2007 (PhD)	Neurosciences, National Brain Research Centre (NBRC) India.
2001 (MSc)	Biotechnology, Department of Biotechnology from APS University, Madhya Pradesh, India.
1999 (BSc)	Chemistry, Botany and Zoology from Maharshi Dayanand University, Rohtak, Haryana, India.

Honors, Awards, Scholarships and Other Qualifications

2015	The Theodor-Schwann-Prize 2015; German Society of Neuropathology and Neuroanatomy (DGNN).
2013-2016	START grant, RWTH Aachen University Hospital.
2013-2017	IZKF grant, Medical Faculty, RWTH Aachen University Hospital.
2008	JSPS Fellowship award from Japan Society for the Promotion of Science.
2006	Japanese Neuroscience Travel award by Japanese Neuroscience Society meeting 2006 held in Kyoto (JAPAN).
1997	Senior research fellowship (SRF) from Department of Biotechnology (DBT), Government of India.

Research Topics

Understanding the molecular pathomechanisms and developing therapeutic targets for ALS-FTD and related disorders

Selected Publications

1. **Goswami A**, Dikshit P, Mishra A, Nukina N, Jana NR. Expression of expanded polyglutamine proteins suppresses the activation of transcription factor NFkappaB. *J Biol Chem.* 281(48):37017-24, 2006
2. Bauer PO, **Goswami A**, Wong HK, Okuno M, Kurosawa M, Yamada M, Miyazaki H, Matsumoto G, Kino Y, Nagai Y, Nukina N. Harnessing chaperone-mediated autophagy for the selective degradation of mutant huntingtin protein. *Nat Biotechnol*. 28(3):256-63, 2010
3. Prause J*, **Goswami A*,** Katona I, Roos A, Schnizler M, Bushuven E, Dreier A, Buchkremer S, Johann S, Beyer C, Deschauer M, Troost D, Weis J. Altered localization, abnormal modification and loss of function of Sigma receptor-1 in amyotrophic lateral sclerosis. *Hum Mol Genet.* 22(8): 1581-1600, 2013. *Equal contr.
4. Roos A, Buchkremer S, Kollipara L, Labisch T, Gatz C, Zitzelsberger M, Brauers E, Nolte K, Schröder JM, Kirschner J, Jesse CM, Goebel HH, **Goswami A**, Zimmermann R, Zahedi RP, Senderek J, Weis J. Myopathy in Marinesco-Sjögren syndrome links endoplasmic reticulum chaperone dysfunction to nuclear envelope pathology. *Acta Neuropathol*. 127(5): 761-777, 2014
5. Vollrath JT, Sechi A, Dreser A, Katona I, Wiemuth D, Vervoorts J, Dohmen M, Chandrasekar A, Prause J, Brauers E, Jesse CM, Weis J*****, **Goswami A***. Loss of function of the ALS protein SigR1 leads to ER pathology associated with defective autophagy and lipid raft disturbances. *Cell Death Dis.* 12;5: e1290, 2014. *Equal contr.
6. **Goswami A,** Jesse C, Chandrasekar A, Bushuven E, Vollrath J, Dreser A, Katona I, Beyer C, Johann S, Feller A, Grond M, Wagner S, Nikolin S, Troost D, Weis J. Accumulation of STIM1 is associated with the degenerative muscle fibre phenotype in ALS and other neurogenic atrophies. *Neuropathol Appl Neurobiol.* 41(3):304-18. 2014
7. Filézac de L'Etang A, Maharjan N, Cordeiro Braña M, Ruegsegger C, Rehmann R, **Goswami A,** Roos A, Troost D, Schneider BL, Weis J, Saxena S. Marinesco-Sjögren syndrome protein SIL1 regulates motor neuron subtype-selective ER stress in ALS. *Nature Neurosci.* 18(2): 227-238, 2015
8. Ruegsegger C*, Maharjan N*, **Goswami A**, Filézac de L'Etang A, Weis J, Troost D,Heller M, Gut H, Saxena S. Aberrant association of misfolded SOD1 with Na(+)/K(+)ATPase-α3 impairs its activity and contributes to motor neuron vulnerability in ALS. *Acta Neuropathol.* 131(3):427-51, 2016
9. Jesse CM[1], Bushuven E[1], Drepper C[2], Chandrasekar A[1], Yamoah A[1], Tripathi P[1], Dreser A[1], Katona I[1], Beyer C[3], Johann S[3], Grond M[4], Wagner S[4], Nikolin S[1], Aninik J[5], Troost D[5], Sendtner M[2] & **Goswami A[1]*,** Weis J[1]* ALS-associated endoplasmic reticulum proteins in denervated skeletal muscle: Implications for motor neuron disease pathology. *Brain Pathol.* 27(6):781-794, 2016. *Equal contr.
10. Dreser A, Vollrath JT, Sechi A, Johann S, Roos A, Yamoah A, Katona I, Boholega S, Wiemuth D, Tian Y, Schmidt A, Vervoorts-Weber J, Dohmen M, Beyer C, Anink J, Aronica E, Troost D, Weis J*, **Goswami A***. The ALS-linked E102Q mutation in Sigma receptor-1 leads to ER stress-mediated defects in protein homeostasis and dysregulation of RNA binding proteins. *Cell Death Differ.* 10:1655-1671, 2017. *Equal contr.

Further publications: https://www.ukaachen.de/kliniken-institute/institut-fuer-neuropathologie/publications.html