




**University Faculty Details Page on DU Web-site**

Title	Prof.	First Name	ALO	Last Name	NAG	Photograph
Designation	<b>Professor</b>					
Department	<b>Biochemistry</b>					
Address (Campus)	Department of Biochemistry Univ. of Delhi South Campus New Biotech Building - 2 <sup>nd</sup> Floor Benito Juarez Road, Dhaula Kuan New Delhi- 110021					
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Education						
<b>Subject</b>	<b>Institution</b>	<b>Year</b>	<b>Details</b>			
Ph.D.	University of Delhi South Campus	1999	Biochemistry			
M.Sc.	University of Delhi South Campus	1993	Biochemistry			
B.Sc.	University of Delhi	1991	Biochemistry (Hons)			
<b>Career Profile</b>						
<b>Organisation / Institution</b>	<b>Designation</b>	<b>Duration</b>	<b>Role</b>			
Univ. of Illinois at Chicago, U.S.A. Department of Biochemistry and Molecular Genetics	Postdoc Fellow	1999- 2001	Identification of interacting partners of damaged DNA binding proteins (DDB1 and DDB2).			
Univ. of Illinois at Chicago, U.S.A. Department of Biochemistry and Molecular Genetics	Senior Scientist	2002-2004	Study of the role of Cul4A (Ubiquitin Ligase) in oncogenesis and cell cycle regulation.			
Northwestern Univ., U.S.A. Robert Lurie Cancer Center	Instructor	2004-2007	Worked as a team leader on HPVE6 interactor protein hADA3 in acetylation of p53, study of its <i>in-vivo</i> functions by generating knock-out mouse models.			

Delhi University Department of Biochemistry	Faculty (Reader, Assoc. Prof.)	2007-2014	Teaching and Research
Delhi University Department of Biochemistry	Professor	2014- Present	Teaching and Research
<b>Research Interests / Specialization</b>			
<p>Cell cycle regulation, Molecular mechanisms of cellular transformation, Novel tumor suppression pathways, Development of targeted anti-cancer strategies, Post-translational mechanisms in human and malarial parasite.</p> <p><b>Research Activities:</b></p> <p><b>Cancer :</b> The major focus of our research group has been to combat cancer through <b>discovery of novel molecular targets</b>. Currently, the lab is elucidating the mechanisms HPV related malignancies. We are also studying the role of the crucial cell cycle regulator FOXM1 and E3 ligase Cul4A in oncogenesis and metastasis.</p> <p><b>Malaria :</b> Exploring the significance of post-translational machinery in <i>Plasmodium falciparum</i>.</p>			
<b>Teaching Experience ( Subjects/Courses Taught)</b>			
Teaching <b>Molecular Biology</b> and <b>Developmental Biology</b> course to M.Sc., M.Phil and Ph.D. students.			
<b>Honors &amp; Awards</b>			
<ol style="list-style-type: none"> <li>1. Appreciation award from Carcinogenesis Foundation, USA for organizing the <b>2012</b> International Carcinogenesis conference in India.</li> <li>2. Invited as Research Scientist Fellow in University of Illinois at Chicago, USA, from May to July, <b>2012</b>.</li> <li>3. Postdoctoral Travel Award by American Society for Biochemistry and Molecular Biology for attending ASBMB/ASPET <b>2000</b> Meeting, Boston, USA.</li> <li>4. Young Scientist travel award by Council of Scientific and Industrial Research (CSIR, India) to attend the 17<sup>th</sup> International Congress of Biochemistry and Molecular Biology Conference, <b>1997</b>, San Francisco, California.</li> <li>5. Young Scientist award in the 4th International Symposium on Biochemical Roles of Eukaryotic Cell Surface Macromolecules, <b>1996</b>, New Delhi, India.</li> <li>6. Qualified National Eligibility Test in 1993 which is conducted by Council of Scientific and Industrial Research (CSIR, Government of India) and awarded the University Grants Commission Fellowship for carrying out research from <b>1993-1998</b>.</li> <li>7. Scholarship awarded by Chanakyapuri Rotary Club (Delhi, India) for outstanding academic performance during Masters in Biochemistry (<b>1991-1993</b>).</li> </ol>			

### Conference Organization :

1. Served as **Local Organizing Secretary** of the International conference “Carcinogenesis 2012” entitled “Frontiers in Carcinogenesis and Preventive Oncology: Molecular Mechanisms to Therapeutics”. The conference was held at the Ram Manohar Lohia Hospital, New Delhi from 19<sup>th</sup> to 21<sup>st</sup> November 2012.
2. “Frontiers in Biological Sciences” March 16, 2012, S.P. Jain Auditorium, University of Delhi South Campus, New Delhi.
3. “Emerging Trends in Globin Research: Need to Imbibe New Approaches and Technologies” February 6, 2010, Biotech Centre Auditorium, University of Delhi South Campus, New Delhi.

### Some Selected Peer Reviewed Publications

1. Chand V, Nandi D, Mangla AG, Sharma P, **Nag A. (2016)**. “Tale of a multifaceted co-activator, hADA3: from embryogenesis to cancer and beyond”. **Open Biology**, 6(9): pii: 160153. doi: 10.1098/rsob.160153.
2. Uppal S, Singh AK, Arya R, Tewari D, Jaiswal N, Kapoor A, Bera AK, **Nag A**, Kundu S. **(2016)**. “Phe28<sub>B10</sub> Induces Channel-Forming Cytotoxic Amyloid Fibrillation in Human Neuroglobin, the Brain-Specific Hemoglobin”. **Biochemistry**. 55(49):6832-6847.
3. Singhal, P., Sharma, U, Hussain, S, **Nag, A.** and Bharadwaj, M. **(2016)**. Identification of genetic variants in TNF receptor 2 which are associated with the development of cervical carcinoma. **Biomarkers** May 4:1-8 (Epub ahead of print)
4. Kumar S., **Nag,A.** and Mandal C.C. **(2015)** “A Comprehensive Review on miR-200c, A Promising Cancer Biomarker with Therapeutic Potential.” **Cancer Drug Targets** 16(12), 1381-403.
5. Jaiswal, N., John, R., Chand, V., and **Nag, A. (2015)**. “Oncogenic Human papillomavirus16E7 modulates SUMOylation of FoxM1b” **The International Journal of Biochemistry & Cell Biology**. Nov11;58C:28-36. doi:10.1016/j.biocel.2014.11.002
6. Singhal, P., Kumar, A., Hussain, S, **Nag, A.** and Bharadwaj, M. **(2015)**. “NFKB1/NFKB1a polymorphisms are associated with the progression of cervical carcinoma in HPV-infected postmenopausal women from rural area”. **Tumor Biology**, 36(8), 6265-76.
7. Raza, M., Chakraborty, S., Choudhury, M., Ghosh, P.C. and **Nag A. (2014)**. “Cellular iron homeostasis and therapeutic implications of iron chelators in cancer”. **Curr. Pharm. Biotech.** 15(12):1125-40.
8. John, R., Chand, V., Chakraborty, S., Jaiswal, N. and **Nag, A. (2014)**. “DNA damage induced activation of Cygb stabilizes p53 and mediates G1 arrest”. **DNA Repair**. Dec;24:107-12. doi: 10.1016/j.dnarep.2014.09.003.
9. Chand, V., John, R., Jaiswal, N., Johar, S. and **Nag, A. (2014)** “High Risk HPV16E6

Stimulates hADA3 Degradation by Enhancing its SUMOylation". *Carcinogenesis*. 35(8):1830-9. doi: 10.1093/carcin/bgu104.

10. Chakraborty, S., John, R. and **Nag A.** (2014) "Cytoglobin in tumor hypoxia: Novel insights into cancer suppression". *Tumor Biology*, 35(7), 6207-19. doi: 10.1007/s13277-014-1992-z.
11. Jaiswal, N., Chakraborty, S. and **Nag A.** (2014) "Biology of FOXM1 and its Emerging Role in Cancer Therapy". *J. Proteins and Proteomics*, 5(1): 249.
12. Sharma, P. and **Nag, A.** (2014) "CUL4A Ubiquitin Ligase: A Promising Drug Target for Cancer and Other Human Diseases". *Open Biology*, 4: 130217. doi: 10.1098/rsob.130217.
13. Mohibi, S., Gurumurthy, C.B., **Nag, A.**, Mirza, S., Mian, Y., Quinn, M., Katafiaz, B., Eudy, J., Pandey S., Guda, C., Naramura, M., Band, H. and Band, V. (2012) "Mammalian alteration/deficiency in activation 3 (Ada3) is essential for embryonic development and cell cycle progression". *J Biol Chem*, 287(35) : 29442-56.
14. John, R., Chand, V., Jaiswal, N. and **Nag, A.** (2011) "Genotoxic Stress Induced Posttranslational Modification of Transcriptional Adaptor Protein Ada3". *J. Proteins and Proteomics*, 2(2) : 71-79.
15. Kurowska, A.G., **Nag, A.**, Dimri, M., Gao, Q., Dimri, G., Band, H. and Band, V. (2007). "Ada3 requirement for HAT recruitment to ER and estrogen-dependent breast cancer cell proliferation". *Can. Res.* 67(24):11789-97. Erratum in : *Cancer Res.* 2008 , 68(5):1609.
16. **Nag, A.**, Kurowska, A.G., Dimri, M., Sassack., Gurumurthy, C.B., Gao, Q., Dimri, G., Band, H. and Band, V. (2007). "An Essential Role of Human Ada3 in p53 Acetylation". *J. Biol. Chem.* 282(12) : 8812- 20.
17. Bondar, T., Kalinina, A., Khair, L., Kopanja, D., **Nag, A.**, Bagchi, S. and Raychaudhuri P. (2006). "Cul4A and DDB1 associate with Skp2 to target p27Kip1 for proteolysis involving the COP9 signalosome". *Mol Cell Biol.* 26(7):2531-9.
18. Rajabi, H, Baluchamy, S., Kolli, S, **Nag, A.**, Srinivas, R., Raychaudhuri, P., Thimmapaya, B. (2005). "Effects of depletion of CREB-binding protein on c-Myc regulation and cell cycle G1-S Transition". *J. Biol. Chem.* 280(1):361-74.
19. Meng, G., Zhao, Y., **Nag, A.**, Zeng, M., Dimri, G., Gao, Q., Wazer, D.E., Kumar, R., Band, H., Band, V. (2004). "Human ADA3 binds to estrogen receptor (ER) and functions as a coactivator". *J. Biol. Chem.* 279(52), 54230-54240.
20. **Nag, A.**, Bagchi, S., and Raychaudhuri P. (2004). "Cul4A physically associates with MDM2 and participates in the proteolysis. *Cancer Res.* 64 (22): 815.
21. Datta A, **Nag A**, Pan W, Hay N, Gartel AL, Colamonici O, Mori Y, Raychaudhuri P. (2004). "Myc-ARF (alternate reading frame) interaction inhibits the functions of Myc". *J Biol Chem.* 279(35) : 36698-707.
22. **Nag, A.**, Datta, A., Yoo, K., Bhattacharyya, D., Chakraborty, A., Wang, X., Slagle, B.L., Costa, R.H., and Raychaudhuri, P. (2001). "DDB2 Induces Nuclear Accumulation of the Hepatitis B Virus X Protein Independently of DDB1". *J. Virol.* 75(21): 10383-10392.
23. **Nag, A.**, Bondar, T., Shiv, S., and Raychaudhuri, P. (2001). "The XP-E Gene Product DDB2 is a Specific Target of Cullin-4A in Mammalian Cells". *Mol. Cell. Biol.* 21(20): 6738-6747.
24. Shiyonov, P, **Nag, A.** and Raychaudhuri, P. (1999). "Cullin 4A associates with the UV-damaged DNA-binding protein DDB" *J. Biol Chem.* 274 (50) : 35309-12.

25. **Nag, A.**, Mitra, G.,and Ghosh, P.C. **1997**. "A Colorimetric Estimation of Polyethyleneglycol Conjugated Phospholipid In Stealth Liposomes" **Anal. Biochem.** 250 : 35-43.
26. **Nag, A.**, Mitra, G.,and Ghosh, P.C. **1996**. "A Colorimetric Assay For Estimation of Polyethyleneglycolated Protein using Ammonium Ferrothiocyanate" **Anal. Biochem.** 237: 224-231.

**Patent** : Filed a provisional patent for **novel peptide based therapeutics against cervical cancer**, one of the topmost health menace for Indian women.

#### **Association with Professional Societies Memberships**

Life member, Society of Biological Chemists (India)  
Life member, Indian Association of Cancer Research (India)  
Life member of Proteomics society of India

Associate member, American Association of Cancer Research (USA)

#### **Serving in Editorial Board / as Reviewers:**

**Editorial Board Member** for the Journal "Current Trends in Biotechnological and Chemical Research", India.

**Editorial Board Member** for the Journal of Proteins and Proteomics, A journal of the Proteomics Society, India, Serials Publications.

**Reviewer of research grant** proposals for CSIR, DBT and DST, Govt. of India.

**Reviewer of research papers** from Molecular Cancer (USA), eCancer (UK), PLoS One, PLASMID (USA), Current Cancer Drug Targets (USA), Genetics Research International (USA), BMC Genomics, Current Drug Targets, Current Medicinal Chemistry, Current Pharmaceutical Biotechnology, Tumor Biology and Molecular Cancer Biology (USA).

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