

Prof. Kunzang Chosdol (MD, PhD)

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Academic Details

Degree	Subject	University/ Institution	Year
PhD	Biochemistry	AIIMS, New Delhi	2007
MD	Biochemistry	AIIMS, New Delhi	1999
MBBS & Internship	Medicine	Bundelkhand University, Jhansi, UP	1995

Positions held:

Position	Dates	Department	University/ Institution
Professor	2014- till date	Biochemistry	All India Institute of Medical Science (AIIMS), New Delhi
Additional Professor	2010-2014		
Associate Professor	2007-2010		
Assistant Professor	2003-2007		
Senior Demonstrator	2000-2003		

Research focus:

Dr. Kunzang Chosdol is working on glioma. Her pioneering work established the oncogenic role of the *FAT1* gene in glioblastoma, and her laboratory continues to investigate its molecular mechanisms, prognostic significance, and therapeutic potential. Dr Chosdol has published numerous papers in reputed international journals and holds a patent for her research. Her contributions have been widely recognised through several honours, including the INSA Best Teacher Award (2022) and her election as a Fellow of the National Academy of Medical Sciences (FAMS). She has mentored a large number of PhD, MD, and MSc students, and remains deeply committed to both research and teaching.

Patents:

- United States Patent US9556437(2017) "*FAT1 gene in cancer and inflammation*" Kunzang Chosdol, Bhawana Dikshit and Subrata Sinha.
- United States Patent US20160053279A1(2016) "*Placental Like Alkaline Phosphatase Promoter (PLAP) Mediated Cell Targeting*" Subrata Sinha, Imran Khan, Khalid Ahmad, Kunzang Chosdol and P. Chattopadhyay.

Honours/Awards:

- *Elected Fellow of the National Academy of Medical Sciences (FAMS)- 2022.*
- *INSA Teachers Award (2022)* by Indian National Science Academy (INSA), New Delhi
- *First prize in AIIMS Oncology Research Award-2022 for the research article published in Frontiers Oncology 2022.*
- *Dr. B. Sadasivudu Oration Award* (December 2021) by Association Of Medical Biochemists of India (AMBI) during the 28th National Annual Conference Of AMBI at AIIMS Raipur, Chhattisgarh.
- *Woman Achiever and Contributor of Ladakh in Science and Academics* (2021) for my contribution in setting up COVID-19 diagnostic RT-PCR laboratory in Leh District Hospital; By the "Ladakh Regional Centre, G.B. Pant National Institute of Himalayan Environment (NIHE)", Ministry of Environment, Forest & Climate Change, Govt of India.

- *Prestigious LG Trophy and certificate* (August 2020) in recognition of the exemplary contribution “*In Fight Against Covid-19*” for setting up COVID-19 diagnostic RT-PCR laboratory at Leh, UT Ladakh – presented by Shri R.K. Mathur, Hon’ble Lieutenant Governor of UT Ladakh.
- *AIIMS Excellence Award-2018* (Third prize) in recognition of the outstanding publication “*FAT1 modulates EMT and stemness genes expression in hypoxic glioblastoma*”
- *Mrs Abida Mahdi Award for Neuroscience Research-2017* in recognition of the outstanding contribution in the field of Neuroscience Research - instituted by Indian Academy of Biomedical Sciences (IABS)
- *AIIMS Excellence Award-2017* (Third prize) in recognition of the outstanding publication “*FAT1 is a novel regulator of HIF1 α and invasion of high grade glioma*”
- *AIIMS Excellence Award-2015* (Third prize) in recognition of the outstanding publication “*A Combined Gene Signature of Hypoxia and Notch Pathway in Human Glioblastoma and Its Prognostic Relevance*”
- *ISNO Presidents Award -2014* for the best Clinician Researcher in Basic Neuro-Oncology, awarded during 6th Annual Conference of the Indian Society of neuro-Oncology (ISNO) (11-13 April, 2014) at Lucknow, UP.
- *AIIMS Excellence Award-2013* (Third prize) in recognition of the outstanding publication “*FAT1 acts as an upstream regulator of oncogenic and inflammatory pathways, via PDCD4, in glioma cells*”.
- “*Fast Track*” Young Scientist scheme by the Department of Science and Technology (DST), Govt. of India, as *Principal Investigator* for the Project with full financial support (2012-15).
- *Institute International Travel Grant* to present my work during IX European Congress of Neuropathology, Greece. May, 2008
- *INSA (Indian National Science Academy) Travel Support* to attend the conference - IXth European Congress of Neuropathology, Greece. May, 2008
- “*Fast Track*” Young Scientist scheme by the Department of Science and Technology (DST), Govt. of India, (2003-2006).
- *Travel Fellowship by the Miami Nature Biotechnology Winter Symposium (MNBWS) organizers (USA)* to present my work in the symposium - MNBWS; 50 years on: From the Double helix to Molecular Medicine, Miami, Florida. 2003.
- *CSIR International Travel Grant* to present my work in symposium - MNBWS; 50 years on: From the Double helix to Molecular Medicine, Miami, Florida. 2003.

Total Publications: 64 (Research Papers/Reports: 56 and General articles: 7)

Chapters in Books: 8 chapters

List of publications: 2023-2025

- Gupta Y, Goswami S, Arora M, Malik N, Irshad K, Kundu A, Gowda SH, Kapoor M, Gupta S, Nag TC, Suri V, Suri A, Chattopadhyay P, Sinha S, Chosdol K. Atypical cadherin FAT1 promotes tumorigenesis by suppressing autophagic cell death in glioblastoma under hypoxia or nutrient stress. *Cell Mol Biol Lett.* 2025 Sep 3;30(1):106.
- Arora M, Kundu A, Sinha S, Chosdol K. Immune factors and their role in tumor aggressiveness in glioblastoma: Atypical cadherin FAT1 as a promising target for combating immune evasion. *Cell Mol Biol Lett.* 2025 Jul 25;30(1):89.
- Chaudhary M, Soni N, Malik N, Chosdol K, Bissa B. Differential expression of GABARAPs in glioblastoma renders temozolomide sensitivity in a p53-dependent manner. *Tissue Cell.* 2025 May 28;96:102991.
- Jha J, Singh MK, Singh L, Pushker N, Meel R, Lomi N, Bakhshi S, Nag TC, Chosdol K, Sen S, Kashyap. Prognostic significance of melanogenesis pathway and its association with the ultrastructural characterisation of melanosomes in uveal melanoma. *Br J Ophthalmol.* 2025 Feb 24;109(3):416-425.
- Khan MT, Almas M, Malik N, Jalota A, Sharma S, Ali SA, Luthra K, Suri V, Suri A, Basak S, Seth P, Chosdol K, Sinha S. STAT1 mediated downregulation of the tumor suppressor gene PDCD4, is driven by the atypical cadherin FAT1, in glioblastoma. *Cell Signal.* 2024 Jul;119:111178.

- Farheen S, Pm MM, Rehman S, Hoda MF, Gupta Y, Ali A, Chosdol K, Shahi MH. Homeodomain Transcription Factors Nkx2.2 and Pax6 as Novel Biomarkers for Meningioma Tumor Treatment. Indian J Clin Biochem. 2024 Jan;39(1):47-59.
- Rashid S, Rashid S, Das P, Malik N, Dash NR, Singh N, Pandey RM, Kumar L, Chauhan SS, Chosdol K, Gupta S, Saraya A. Elucidating the Role of miRNA-326 Modulating Hedgehog Signaling in Pancreatic Carcinoma. Pancreas. 2024 Jan 1;53(1):e42-e48.
- Rai D, Pattnaik B, Bangaru S, Tak J, Kumari J, Verma U, Vadala R, Yadav G, Dhaliwal RS, Kumar S, Kumar R, Jain D, Luthra K, Chosdol K, et al. microRNAs in exhaled breath condensate for diagnosis of lung cancer in a resource-limited setting: a concise review. Breathe (Sheff). 2023 Dec;19(4):230125.
- Singh N, Mudassir M, Ansari S, Chosdol K, Sinha S, Chattopadhyay P. Poly(lactic-co-glycolic) acid nanoparticles localize in vesicles after diffusing into cells and are retained by intracellular traffic modulators. Nanomedicine (Lond). 2023 Nov;18(26):1907-1919. doi: 10.2217/nnm-2023-0139.
- Malik N, Kundu A, Gupta Y, Irshad K, Arora M, Goswami S, Mahajan S, Sarkar C, Suri V, Suri A, Chattopadhyay P, Sinha S, Chosdol K. Protumorigenic role of the atypical cadherin FAT1 by the suppression of PDCD10 via RelA/miR221-3p/222-3p axis in glioblastoma. Mol Carcinog. 2023 Dec;62(12):1817-1831.
- Chopra P, Sehgal T, Yadav R, Meena S, Maitra S, Soni KD, Subramanian A, Prakash S, Mathur P, Mittan S, Tavolacci S, Kaushik A, Gulia K, Mostafavi E, Gupta A, Trikha A, Gupta R, Chosdol K, Mohan A, Mani K, Sinha S, Datta SK. A Combination of Inflammatory and Hematological Markers is Strongly Associated with the Risk of Death in Both Mild and Severe Initial Disease in Unvaccinated Individuals with COVID-19 Infection. EJIFCC. 2023 Apr 18;34(1):42-56.
- Farheen S, Ahmed SP, Mariyath P M M, Kausar T, Hoda MF, Arif SH, Nayeem SM, Ali A, Chosdol K, Shahi MH. Differential role of Pax6 and its interaction with Shh-Gli1-IDH2 axis in regulation of glioma growth and chemoresistance. J Biochem Mol Toxicol. 2023 Feb;37(2):e23241.

Life member of Professional bodies

- National Academy of Medical Sciences (NAMS)
- Indian Association for Cancer Research (IACR)
Vice-President (IACR)– (2016-2019)
Treasurer – (2014-2016)
Organising Secretary, 35th Annual Convention of IACR, Delhi, 2016.
- Indian Society for NeuroOncology (ISNO)
- Indian Academy of Biomedical Sciences (IABS)
- Association of Clinical Biochemists of India (ACBI)
- Society for NeuroChemistry India (SNCI)

Ongoing Research Projects as PI: ICMR (3), ANRF, DBT, Lady Tata Memorial Trust