



Jitendra Kumar

PhD (Life science, National Centre for Biological Sciences, TIFR, India)

Post doc. (Aging and Neurodegeneration, The Buck Institute for Research on Aging, CA, USA)

Assistant professor (DBT-IPLS program)

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Area of Expertise/ Research interest:

I joined NCBS-TIFR as an integrated M.Sc./Ph.D student in 2004. During my PhD research, I used *C. elegans* as a model system to understand the mechanism of cargo binding by the pleckstrin homology (PH) domain of UNC-104. We also investigated the function of UNC-104 motor protein at the synapse using a combination of *in vivo* genetic approaches, biochemical analysis, and bioinformatic modelling.

In 2011, I joined the Buck Institute for Research on Aging as postdoctoral research fellow in Dr. Pankaj Kapahi's lab (The buck institute for aging, CA, USA). During my post doctoral research I worked on some of the aspects of IGF-1/insulin signalling pathway like effect of host bacteria, effect of heavy metals like Zinc, to explore novel compounds which affect these pathways and increase longevity.

In 2014, I joined Patna Science College (Patna University) as assistant professor under DBT-IPLS program. Currently, I am pursuing many independent and collaborative projects to find novel compounds and model systems to study the mechanism and prevention of neurodegenerative disease and enhancement of lifespan. I am also exploring novel methods to remove Arsenic toxicity in human population using *C. elegans* as model system.

Publications:

1. **Jitendra Kumar** *, Choudhary B*., Metpally R., Zheng Q., Nonet M. L., Ramanathan S., Klopfenstein D. R., Koushika S. P., kinesin-3 motor UNC-104/KIF1A is degraded upon loss of specific binding to cargo. PLoS Genetics, 2010 Nov 4;6(11):e1001200, * equally contributed. (**Impact factor ~ 9.5, citation index -15**)
2. **Jitendra Kumar**, Kyungchae Park, Alzheimer's disease and gender differences in *C.elegans*. The worm breeder's gazette, volume 19, number 4, august 2013
3. Singh N.K. *, Hasan S.S. *, **Jitendra kumar** *, Raj I., Pathan A.A., Shakil S., Gourinath S., Madamwar D., 2013 Molecular Basis of Phycocyanin- β -Secretase Interaction: A Putative Therapy for Alzheimer's Disease. * **Equally contributed**, (CNS Neurodegenerative Disease and Drug Targets)
4. **Jitendra Kumar**, Kyungchae Park, Anjai awasthi, An approach to examine the effect of pharmacological drugs on insulin signaling in *C.elegans*. The worm breeder's gazette, volume 20, 1 march, 2014
5. Ravi Raghav Sonani, Niraj Kumar singh, **Jitendra Kumar**, Dixita Thakar, Datta Madamwar · Concurrent purification and antioxidant activity of phycobiliproteins from *Lyngbya* sp. A09DM: An antioxidant and anti-aging potential of phycoerythrin in *Caenorhabditis elegans*. (Accepted in Process Biochemistry).