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Biological Sciences
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EDUCATION

- 1994 - 2000** **Ph.D.** (Life Sciences)
School of Life Sciences, Jawaharlal Nehru University,
New Delhi, India
<http://www.jnu.ac.in/>
- 1992 - 1994** **M. Sc.** (Biotechnology)
School of Biotechnology, Madurai Kamaraj University,
Tamil Nadu, India
<http://www.mkuuniversity.org/>

PROFESSIONAL

- 2009 - present** **Assistant Professor**
Department of Biological Sciences,
University of Wisconsin-Milwaukee
<http://www4.uwm.edu/>
- 2000 to 2009** **Visiting and Research Fellow**
Laboratory of Gene Regulation and Development, NICHD,
National Institutes of Health, Bethesda, MD, USA,
Laboratory of Dr. Thomas E Dever
<http://deverlab.nichd.nih.gov>

HONORS and AWARDS

- **FARE Award**, National Institutes of Health, USA, **2004**.
<http://felcom.nih.gov/FARE/>
- **National Eligibility Test (For Lectureship/Assistant Professor)**, Agricultural Scientist Recruitment Board, Govt. of India, **1995**.
<http://www.icar.org.in/icarjob.htm>
- **National Eligibility Test**, Council of Scientific and Industrial Research, Govt. of India, **1994**. <http://www.csir.res.in/>
- **Junior Fellowship in Genetics and Plant Breeding**, Indian Council of Agricultural Research, Govt. of India, **1992**. <http://www.icar.org.in/>
- **National Scholarship, 1987**, Ministry of Human Resource Development, Govt. of India. <http://education.nic.in/>

SCHOLARLY WORKS

- **Teaching:** M. Sc. Cell Biology course, assisted Prof. Guha-Mukherjee, **1996**, School of Life Sciences, Jawaharlal Nehru University, India
- Research Training Program, **1997**, M. Sc. Student, School of Life Sciences, Jawaharlal Nehru University, India
- **Mentor** for Howard Hughes Medical Institute/Montgomery County Public Schools Intern Program at the National Institutes of Health, **2006**, MD, USA
- **Adhoc Reviewer** for the Journals, *Journal of Biological Chemistry*, *Trends in Biochemical Sciences (TiBS)*, *Invitro Biology*, *Plant Sc*, *Molecular Cell*

SCIENTIFIC CONFERENCES/TALKS/WORKSHOPS

- Cold Spring Harbor Laboratory Meeting on Translational Control, **2006**, **Platform Presentation**. <http://www.cshl.edu/>
- FASEB Summer Research Conference on Protein Kinases and Protein Phosphorylation, **2005**, **Poster**. <http://www.faseb.org/>
- Cold Spring Harbor Laboratory Meeting on Translational Control, **2004**, **Platform Presentation**.
- Washington Yeast Club, **Speaker**, **2003**, **2005**. http://dir.nichd.nih.gov/Interest_Groups/yeast/
- Cold Spring Harbor Laboratory Meeting on Translational Control, **2002**, **Poster**.
- Training Workshop on Plant Transformation & PCR Walking on Genomic DNA, TERI, New Delhi, India, **1997**. <http://www.teriin.org/>

PUBLICATIONS

1. **Dey, M.**, Chiu, E., Velyvis, A., Kay, L. E., Sicheri, F., Dever T. E., (2009) Requirement for kinase-induced conformational change in eIF2a restricts phosphorylation of Ser51 – **communicated**.
2. Dev, K., Santangelo T. J., Rothenburg, S., Neculai, D., **Dey, M.**, Sicheri, F., Dever T. E., Reeve, J. N., Hinnebusch, A. G. (2009) Archaeal aIF2B interacts with eukaryotic translation initiation factors eIF2alpha and eIF2Balpha: implications for aIF2B function and eIF2B regulation. **Journal of Molecular Biology**– in press.
3. Gárriz, A., Qiu, H., **Dey, M.**, Seo, E. J., Dever, T. E., Hinnebusch, A. G. (2009) A network of hydrophobic residues impeding helix alphaC rotation maintains latency of kinase GCN2, which phosphorylates the alpha subunit of translation initiation factor 2. **Molecular and Cellular Biology**. 29, 1592-1607.
4. Rothenburg, S., Deigendesch, N., **Dey, M.**, Dever, T. E., Tazi, L. (2008) Double-stranded RNA-activated protein kinase PKR of fishes and amphibians: varying the number of double-stranded RNA binding domains and lineage-specific duplications. **BMC Biology** 6:12.

5. Lee K. P. K., **Dey, M.**, Dante, N., Cao, C., Dever, T. E., Sicheri, F. (2008) Structure of the dual enzyme Ire1 reveals the basis for catalysis and regulation in nonconventional RNA splicing. **Cell** 132, 89-100.
6. Moraes, M. C. S., Jesus, T. C. L., Hashimoto, N. N., Alves, A. S., Avila, C. C., **Dey, M.**, Dever, T. E., Schenkman, S., Castilho, B. A. (2007) A novel transmembrane kinase phosphorylates the unusual form of the translation initiation factor 2 α of *Trypanosoma brucei*. **Eukaryotic Cell** 6, 1979-91.
7. **Dey, M.**, Cao, C., Sicheri, F., and Dever, T. E. (2007) Conserved salt-bridge interactions required for activation of protein kinases PKR, GCN2 and PERK. **Journal of Biological Chemistry** 282, 6653-6660.
8. **Dey, M.**, Cao, C., Dar, A., Tamura, T., Ozato, K., Sicheri, F., and Dever, T. E. (2005) Mechanistic link between protein kinase PKR catalytic domain dimerization, autophosphorylation and eIF2 α phosphorylation. **Cell** 122, 901-913.
9. **Dey, M.**, Trieselmann, B., Locke, E. G., Lu, J., Cao, C., Dar, A., Krishnamurthy, T., Dong, J., Sicheri, F., and Dever, T. E. (2005) PKR and GCN2 kinases and guanine nucleotide exchange factor eukaryotic translation initiation factor eIF2B recognize overlapping surfaces on translation factor eIF2 α . **Molecular and Cellular Biology** 25, 3063-75.
10. Sharma N, **Dey, M.**, and Schaar, S. C. (2002) Evidence of two forms of poly (A) polymerase in germinated wheat embryos and their regulation by a novel protein kinase. **Biochemical and Biophysical Research Communications** 293, 403-411.
11. **Dey, M.**, and Choudhury, S. (2001) Genetically modified organism – A Brave New World! **Curr. Sc.** 80, 722-723. **Corresponding author.**
12. **Dey, M.**, and Guha-Mukherjee, S. (2000) Aspartate metabolism in *Cicer* immature seeds requires Ca²⁺, protein phosphorylation and dephosphorylation, **Plant Science** 150, 85-91.
13. **Dey, M.**, and Guha-Mukherjee, S. (1999) Phytochrome activation of aspartate kinase in etiolated chickpea (*Cicer arietinum*) seedling **Journal of Plant Physiology** 154, 454-458.
14. **Dey, M.**, Kalia, S., Ghosh, S., and Guha-Mukherjee, S. (1998) Biochemical and molecular basis of differentiation in plant tissue culture, **Current Science** 74, 591-596.