

CURRICULUM VITAE

Name **Nandicoori Vinay Kumar**
Sex **Male**
Date of Birth **1st March, 1969**
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Education

Institution & Place	Degree Awarded	Year
Indian Institute of Technology Mumbai, INDIA.	M.Sc (Biotech.)	Aug 1989 to May 1991
Indian Institute of Science Bangalore, INDIA.	Ph.D	August 1991 to Jan 1999

Position and Employment (Starting with the most recent employment)

Institution & Place	Position	Year
National Institute of Immunology New Delhi, INDIA.	Staff Scientist VI	July 2012 to present
National Institute of Immunology New Delhi, INDIA.	Staff Scientist V	July 2008 to July 2012
National Institute of Immunology New Delhi, INDIA.	Staff Scientist IV	July 2004 to July 2008
University of Virginia Charlottesville, USA.	Research Associate	Nov. 2000 to July 2004
Texas A & M University Texas, USA.	Research Associate	Oct. 1997 to Oct. 2000

Awards/Memberships

M. Sreenivasaya Award for the Best Thesis, Indian Institute of Science, Bangalore, India (1999)

Member, Guha Research Conference, India (GRC) (2009)

NASI-Scopus Young Scientist Award (2009)

Awarded Bill and Melinda Gates Foundation Global Health Travel Award (2010)

Awarded National Bioscience Award for Career Development (2010)

Prof. B. K. Bachhawat International Grant for Young Scientist (2011)

Peer-reviewed publications

* represents Corresponding author

- * 1. Singhal, A., Arora, G., Sajid, A., Maji, A., Bhat, A., Virmani, R., Upadhyay, S., **Nandicoori, V.K.**, Sengupta, S. & Singh Y. (2013) Regulation of homocysteine metabolism by *Mycobacterium tuberculosis* S-adenosylhomocysteine hydrolase. *Sci Rep.* 3, 2264.
- * 2. Parikh, A., Kumar, D., Chawla, Y., Kurthkoti, K., Khan, S., Varshney, U. & **Nandicoori, V. K.*** (2013) Development of new generation of vectors for gene expression, gene replacement, and protein-protein interaction studies in mycobacteria. *Appl Environ Microbiol.* 79, 1718-1729.
- * 3. Jagtap, P. K. A., Soni, V., Vithani, N., Jhingan, G.D., Bais, V. S., **Nandicoori, V. K.*** & Prakash, B.* (2012) Substrate bound crystal structure reveals feature unique to *Mycobacterium tuberculosis* N-acetyl glucosamine-1-phosphate uridyltransferase and a catalytic mechanism for acetyltransfer. *J. Biol. Chem.* 287, 39524-37.
- * 4. Rajanala, K. & **Nandicoori, V.K.*** (2012) Localization of nucleoporin Tpr to the nuclear pore complex is essential for Tpr mediated regulation of the export of unspliced RNA. *Plos One* 7, e29921.
5. Sajid, A., Arora, G., Gupta, M., Singhal, A., Chakraborty, K. **Nandicoori, V. K.** & Singh, Y. (2011) Interaction of Mycobacterium tuberculosis Elongation Factor Tu with GTP is regulated by phosphorylation. *J. Bacteriology*, 93, 5347-5358.
6. Sajid, A., Arora, G., Gupta, M., Upadhyay, S., **Nandicoori, V. K.** & Singh, Y. (2011) Phosphorylation of Mycobacterium tuberculosis Ser/Thr Phosphatase by PknA and PknB *Plos One* 6(3): e17871. doi:10.1371/journal.pone.0017871.
7. Chakraborti, P.K.*, Matange, N., **Nandicoori, V. K.***, Singh, Y.*, Tyagi, J.S.* & Visweswariah, S.S.* (2011) Signalling mechanisms in Mycobacteria" has been accepted for publication in *Tuberculosis*. *Tuberculosis*, 91, 432-440. (Review)
- * 8. Khan, S., Nagarajan, S. N, Parikh, A., Samantaray, S., Singh, A., Kumar, D., Roy, R.P., Bhatt, A. & **Nandicoori, V.K.*** (2010) Phosphorylation of enoyl-ACP reductase InhA impacts mycobacterial growth and survival. *J. Biol. Chem.* 285, 37860-37871.
- * 9. Tiwari, D., Singh, R. K., Goswami, K., Verma, S. K., Prakash, B. & **Nandicoori, V. K.*** (2009) Key residues in Mycobacterium tuberculosis protein kinase G play a role in regulating kinase activity and survival in the host. *J Biol. Chem.* 284, 27467-27479.
- * 10. Kumar, P., Kumar, D., Parikh, A., Rananaware, D., Gupta, M., Singh, Y. & **Nandicoori, V. K.** (2009) The Mycobacterium tuberculosis protein kinase K

modulates activation of transcription from the promoter of mycobacterial monooxygenase operon through phosphorylation of transcriptional regulator VirS. *J. Biol. Chem.* 284, 11090-11099.

- * 11. Parikh, A., Verma, S.K. Khan,S., Prakash, B.* & **Nandicoori, V. K.*** (2009) PknB-mediated phosphorylation of novel substrate, N-Acetylglucosamine-1-Phosphate Uridyltransferase, modulates its acetyltransferase activity. *J. Mol. Biol.* 386, 451-464.
- * 12. Sajish, M., Kalayil, S., Verma, S. K., **Nandicoori, V. K.*** & Prakash, B.* (2009) The significance of ExDD and RxKD motif conservation in Rel proteins. *J. Biol. Chem* 284, 9115-9123
13. Verma, S. K., Jaiswal, M., Kumar, N., Parikh, A., **Nandicoori, V. K.** & Prakash, B. (2009) Crystal structure of N-acetylglucosamine-1-phosphate uridyltransferase (GlmU) from Mycobacterium tuberculosis in a cubic space group. *Acta Crystallogr Sect F Struct Biol Cryst Commun.* 65, 435-9.
- * 14. Vomastek, T., Iwanicki, M. P., Burack, W. R., Tiwari, D., Kumar, D., Parsons, J. T., Weber, M. J.* & **Nandicoori, V. K.*** (2008) ERK2 phosphorylation sites and docking domain on the Nuclear Pore Complex protein Tpr cooperatively regulates ERK2-Tpr interaction. *Mol. Cell Biol.* 22, 6954-6966.
15. Samantaray, S., Marathe, U., Dasgupta, S., **Nandicoori, V. K.** & Roy, R. P. (2008) Peptide-sugar ligation catalyzed by transpeptidase sortase: a facile approach to neoglycoconjugate synthesis. (2008) *J Am Chem Soc.* 130, 2132-3.
16. Sajish, M., Tiwari, D., Rananaware, D., **Nandicoori, V. K.** and Prakash, B. (2007) A Charge Reversal Differentiates (p)ppGpp Synthesis by Monofunctional and Bifunctional Rel Proteins. *J. Biol. Chem.* 282, 34977-83
17. Eblen, S.T.§, **Kumar, N. V. §** & Weber, M. J. (2005) Using genetically engineered kinases to screen for novel protein kinase substrates. *Protein-Protein Interactions, A Molecular Cloning Manual, 2nd edition Ed. Golemis, E & Adams, P. Cold Spring Harbor laboratory press.*
18. **Kumar, N. V. §**, Eblen, S.T.§ & Weber, M. J. (2004) Identifying specific kinase substrates through engineered kinases and ATP analogs. *Methods* 32, 389-397. **§ co-first authors**
19. Eblen, S.T.§, **Kumar, N. V. §**, Shah, K., Henderson, M. J., Watts, C. K. W., Shokat, K. M. and Weber, M. J. (2003) Identification of novel ERK2 substrates through use of an engineered kinase and ATP analogs. *J. Biol. Chem.* 278, 14926-14935. **§ co-first authors**
20. **Kumar, N.V.** and Bernstein, L. R. (2001) A new analytical scale DNA affinity binding assay for analyses of specific protein DNA interactions. *Anal. Biochem.* 299, 203-210.
21. **Kumar, N. V.** and Bernstein, L. R. (2001) Ten ERK-related proteins in three distinct classes associate with AP-1 proteins and/or AP-1 DNA. *J. Biol. Chem.* 276, 32362-32372.
22. **Kumar, N. V.** and Bernstein, L. R. (2000) Screening of a cDNA protein expression library by enhanced chemiluminescence detection. *Biotechniques* 29, 418-424.
23. Thanedar, S. S., **Kumar, N. V.** and Varshey, U. (2000) Fate of tRNA of the initiator is sensitive to the critical balance between interacting proteins. *J. Biol. Chem.* 275, 20361-20367.
24. Ghosh, M., **Kumar, N. V.**, Varshey, U. and Chary, K. V. R. (2000) Structural basis for uracil DNA glycosylase interaction with uracil: NMR study. *Nucleic Acids Res.* 28, 1906-1912.

- 25 Ghosh, M., **Kumar, N. V.**, Varshney, U. and Chary, K. V. R. (1999) Structural characterisation of a uracil containing hairpin DNA by NMR and molecular dynamics. *Nucleic Acids Res.* 27, 3938-3944.
- 26 **Kumar, N.V.** and Varshney, U. (1997) Contrasting effects of single stranded DNA binding protein on the activity of uracil DNA glycosylase from *Escherichia coli* towards different DNA substrates. *Nucleic Acids Res.* 25, 2336-2343.
- 27 Vasanthkrishna, M., **Kumar, N.V.** and Varshney, U. (1997) Characterization of the initiator tRNA gene locus and identification of a strong promoter from *Mycobacterium tuberculosis*. *Microbiology.* 143, 3591-3598.
- 28 Mandal, S.S., **Kumar, N. V.**, Varshney, U. and Bhattacharya, S. (1996) Metal ion dependent oxidative cleavage by transition metal complexes of a new water soluble salen derivative. *J. Inorg. Biochem.* 63, 265-272.
- 29 Li, S., **Kumar, N.V.**, Varshney, U. and RajBhandary, U.L. (1996) Role of amino acids attached to tRNA in formylation and in initiation of protein synthesis. *J. Biol. Chem.* 271, 1022-1028.
- 30 **Kumar, N.V.** and Varshney, U. (1994) Inefficient excision of uracil from loop regions of DNA oligomers by *E. coli* uracil DNA glycosylase. *Nucleic Acids Res.* 22, 3737-3741.
- 31 **Kumar, N.V.** and Varshney, U. (1994) Excision of Uracil from the ends of double stranded DNA by uracil DNA glycosylase and its use in high efficiency cloning of PCR products. *Current Science.* 67, 728-734.