

Dr. Rakesh Kumar

PhD Institution and Year : Panjab University, 2014

Date of Joining IISc : 1st July 2014

Area(s) of Research : Microbiology

Name of the Post-doctoral Fellowship : DBT-RA

Laboratory where currently working : Prof. Usha Vijayraghavan's Lab

Department : Microbiology and cell biology

Email address and Telephone number : rakesh1981rakesh@gmail.com

Topic(s) of Research : Mutational analyses of pre-mRNA splicing factors sprrp18 and sprrp16 to decipher their splicing functions and interacting partners.

Research Publications in IISc :

1. Vijaykrishna N, Melangath G, **Kumar R**, Khandelia P, Bawa P, Varadarajan R, Vijayraghavan U, The fission yeast pre-mRNA processing factor 18 (prp18+) has intron-specific splicing functions with links to G1-S cell cycle progression, **2016, J. Biol. Chem.** 291,53, 27387–27402, December 30, 2016. doi:10.1074/jbc.M116.751289.
2. **Kumar R**, Banoth L, Banerjee UC, Kaur J. Enantiomeric separation of pharmaceutically important drug intermediates using a Metagenomic lipase and optimization of its large scale production, **Int. J. Biol. Macromol.** 95, 2017,995–1003.
3. Sharma M, **Kumar R**, Singh R, Kaur J. Thirty degree shift in optimum temperature by a single point mutation: Effect of Serine to Threonine Mutation on Structural Flexibility. **Mol Cell Biochem**, **2016** (DOI 10.1007/s11010-017-2950-z).
4. Vijayakumari D, Sharma AK, Bawa P, **Kumar R**, Srinivasan S and Vijayraghavan U, Fission Yeast Prp16 has Early Essential Functions in Pre-mRNA Splicing and Influences Centromeric Heterochromatinization (Under review- **Plos Genetics**)
5. Goomber S, **Kumar R**, Singh R, Kaur J. Point mutation Gln121-Arg increased temperature optima of Bacillus lipase (1.4 subfamily) by fifteen degrees, **Int. J. Biol. Macromol.** (2016) April 2016 DOI: 10.1016/j.ijbiomac.2016.04.022
6. Khurana J, **Kumar R**, Kumar A, Singh K, Singh R, Kaur J. New insight into old Bacillus lipase: solvent stable mesophilic lipase demonstrating enzyme activity towards cold. **J Mol Microbiol Biotechnol** **2015**; 25:340–348, DOI: 10.1159/000439276

7. **Rakesh K**, Nisha C, Ranvir S, Pushpender KS, Jagdeep K (2015) Engineering of A Lipase towards Thermostability: Studies on Additive Effect of the two Thermo-Stabilising Mutations at Protein Surface. **Adv Genet Eng** 4: 126. doi:[10.4172/2169-0111.1000126](https://doi.org/10.4172/2169-0111.1000126)

Other accomplishments and recognition while in IISc : =

What information will be useful to post-docs if it is available on the post-doc page on the IISc Website ? List the items. –

A tweet about your post-doctoral experience in IISc :-