




## Faculty Details proforma for DU Web-site

Title	Dr.	First Name	Swati	Last Name	Saha	Photograph
Designation		Professor				
Address		Department of Microbiology University of Delhi South Campus New Delhi-110021				
Phone No	Office	24157380				
	Residence	26742839				
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Email	ss5gp@yahoo.co.in					
Web-Page						
Educational Qualifications						
Degree		Institution			Year	
Ph.D.		Indian Institute of Science, Bangalore			1997	
M.Phil. / M.Tech.		-				
PG		Sri Venkateswara University, Tirupati			1991	
UG		Sathya Sai University, Anantapur			1989	
Any other qualification						
Career Profile						
<p><b>October 2011 - present:</b> Professor, University of Delhi, South Campus, New Delhi, INDIA. Research Project: DNA replication and chromatin modifications in <i>Leishmania</i> and archaea.</p> <p><b>April 2008 - September 2011:</b> Associate Professor, University of Delhi, South Campus, New Delhi, INDIA. Research Project: DNA replication and chromatin modifications in <i>Leishmania</i> and archaea.</p> <p><b>April 2005 - March 2008:</b> Reader, University of Delhi, South Campus, New Delhi, INDIA. Research Project: DNA replication in <i>Leishmania</i>.</p> <p><b>Nov. 2000-July 2004:</b> Postdoctoral Fellow/Research Associate, Dept. of Biochemistry &amp; Molecular Genetics, University of Virginia, Charlottesville, Virginia, USA. Advisor: Joyce Hamlin, Ph.D. Research Project: The modulation of DNA replication by transcription, using the CHO DHFR origin as a model system.</p> <p><b>Nov 1997 to Oct. 2000:</b> Postdoctoral Fellow/Research Associate, Dept. of Medical Biochemistry &amp; Genetics, Texas A &amp; M University, College Station, Texas, USA. Advisor: Geoffrey Kapler, Ph.D. Research Project: The identification of proteins involved in DNA replication in the ciliate</p>						

protozoan *Tetrahymena thermophila*.

**Nov 1991- May 1997:**

Graduate student, Department of Biochemistry, Indian Institute of Science, Bangalore, INDIA.

Graduate Advisor: D N Rao, Ph.D.

Research Project: Elucidation of the mechanism of action of the Type III restriction enzyme R.EcoPI.

**Administrative Assignments**

**Member, Board of Research Studies**

**Member, Faculty of Interdisciplinary and Applied Sciences**

**Member, CIF Committee, UDSC**

**Member, IBSC, UDSC**

**Areas of Interest / Specialization**

**DNA replication and chromatin modifications**

**Subjects Taught**

**Recombinant DNA Technology**

**Microbial Genetics**

**Molecular Biology**

**Research Guidance**

*List against each head (If applicable)*

- |  |      |
|--|------|
| 1. Supervision of awarded Doctoral Thesis              | Five |
| 2. Supervision of Doctoral Thesis, under progress      | Five |
| 3. Supervision of awarded M.Phil dissertations         | None |
| 4. Supervision of M.Phil dissertations, under progress | None |

**Publications Profile**

Research papers published in Refereed/Peer Reviewed Journals

Yadav, A, Chandra, U, & **Saha, S.** (2016). Histone acetyltransferase HAT4 modulates navigation across G2/M and re-entry into G1 in *Leishmania donovani*. *Scientific Reports* **6**: 27510 DOI: 10.1038/srep27510

Kumar, D, & **Saha, S.** (2015). HAT3-mediated acetylation of PCNA precedes PCNA monoubiquitination following exposure to UV radiation in *Leishmania donovani*. *Nucleic Acids Res.* doi: 10.1093/nar/gkv431

Goswami, K, Arora, J, & **Saha, S.** (2015). Characterization of the MCM homo-hexamers from the thermophilic euryarchaeon *Picrophilus torridus*. *Scientific Reports* **5**: 9057 DOI: 10.1038/srep0907

Arora, J, Goswami, K, & **Saha, S.** (2014). Characterization of the replication initiator Orc1/Cdc6 from the archaeon *Picrophilus torridus*. *J Bacteriol.* **196**: 276-286

- Kumar, D, Kumar, D, & **Saha, S.** (2012). A highly basic sequence at the N-terminal region is essential for targeting the DNA replication protein ORC1 to the nucleus in *Leishmania donovani*. *Microbiology*. **158**: 1775-1782.
- Kumar, D, Minocha, M, Rajanala, K. & **Saha, S.** (2012). The histone H4 lysine 14 acetylation in *Leishmania donovani* is mediated by the MYST family protein HAT4. *Microbiology*. **158**: 328-337
- Minocha, N, Kumar, D, Rajanala, K, & **Saha, S.** (2011). Characterization of *Leishmania donovani* MCM4: expression patterns and interaction with PCNA. *PLoS One* **6 (7)**: e23107.
- Minocha, N, Kumar, D, Rajanala, K, & **Saha, S.** (2011). Kinetoplast morphology and segregation pattern as a marker for cell cycle progression in *Leishmania donovani*. *J. Euk. Microbiol.* **58 (3)**: 249-253.
- Kumar, D, Minocha, N, Rajanala, K, and Saha, S. (2009). The distribution pattern of proliferating cell nuclear antigen in the nuclei of *Leishmania donovani*. *Microbiology*. **155**, 3748-3757.
- Kumar, D, Mukherji, A & Saha, S. (2008). Expression and subcellular localization of ORC1 in *Leishmania major*. *Biochem Biophys Res Commun.* **375**, 74-79.
- Saha S, Shan Y, Mesner LD, Hamlin JL. (2004) The promoter of the Chinese hamster ovary dihydrofolate reductase gene regulates the activity of the local origin and helps define its boundaries. *Genes Dev.* **18**, 397-410.
- Saha, S, Nicholson, A & Kapler, G.M. ( 2001). Cloning and biochemical analysis of the Tetrahymena origin binding protein TIF1. Competitive DNA binding in vitro and in vivo to critical rDNA replication determinants. *J. Biol. Chem.* **276**, 45417-45426.
- Rao, D. N., Saha, S. & Krishnamurthy, V. (2000). ATP-dependent Restriction Enzymes. *Progress in Nucleic Acid Research and Molecular Biology.* **64**, 1-63.
- Mohammad, M., Saha, S. & Kapler, G. M. (2000). Three different proteins recognize a multifunctional determinant that controls replication initiation, fork arrest and transcription in Tetrahymena. *Nucleic Acids Res.* **28**, 843-851.
- Saha, S. & Kapler, G. M. (2000). Allele-specific protein-DNA interactions between the single stranded DNA-binding protein, ssA-TIBF, and DNA replication determinants in Tetrahymena. *J. Mol. Biol.* **295**, 423-439.
- Saha, S., Ahmad, I., Reddy, Y. V., Krishnamurthy, V. & Rao D. N. (1998). Functional analysis of conserved motifs in type III restriction-modification enzymes. *Biol. Chem.* **379**, 511-517.
- Saha, S. & Rao, D. N. (1997). Mutations in the Res subunit of EcoPI restriction enzyme that affect ATP-dependent reactions. *J. Mol. Biol.* **269**, 342-354.
- Saha, S. & Rao, D. N. (1995). ATP hydrolysis is required for DNA cleavage by EcoPI restriction enzyme. *J. Mol. Biol.* **247**, 559-567.

Research Projects (Major Grants)				
S.No.	Project Title	Funding agency	Amount	Sanction date and Duration
1.	Investigating DNA replication protein Cdc45 in <i>Leishmania donovani</i>	DST	~49.5 lakhs	2015-2018
2.	Investigation of the roles of the GNAT-family histone acetyltransferases Elp3a and Elp3b in the protozoan <i>Leishmania donovani</i>	DBT	~ 67.5lakhs	2016-2019
Awards and Distinctions				
1998	-	Giri Memorial Award for the best thesis of the year 1997, Indian Institute of Science, Bangalore. INDIA.		
1993	-	Senior Research Fellowship, UGC, INDIA.		
1991	-	Junior Research fellowship, UGC, INDIA.		
1989	-	Gold-medallist in B.Sc., SSSIHL, Anantapur.		
Association With Professional Bodies				
<ol style="list-style-type: none"> <li>1. <i>Editing</i></li> <li>2. <i>Reviewing</i></li> <li>3. <i>Advisory</i></li> <li>4. <i>Committees and Boards</i></li> <li>5. <i>Memberships</i>  Association of Microbiologists of India  Society of Biological Chemists of india  International Society of Protistologists</li> <li>6. <i>Office Bearer</i></li> </ol>				
Other Activities				