




Faculty Details proforma for DU Web-site

(PLEASE FILL THIS IN AND Email it to websiteDU@du.ac.in and
cc: director@ducc.du.ac.in)

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				
	Mobile	9911156268				
Email		ss5gp@yahoo.co.in				
Web-Page		microbio.du.ac.in				
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 Institute of Higher Learning, Anantapur			1989	
Any other qualification						
Career Profile						
October 2011 – present: Professor, University of Delhi, South Campus, New Delhi, INDIA. Research area: DNA replication and chromatin modifications in <i>Leishmania donovani</i> .						
April 2008 – September 2011: Associate Professor, University of Delhi, South Campus, New Delhi, INDIA. Research area: DNA replication and chromatin modifications in <i>Leishmania donovani</i> .						
April 2005 – March 2008: Reader, University of Delhi, South Campus, New Delhi, INDIA. Research area: DNA replication in <i>Leishmania</i> .						
Nov. 2000-July 2004: Postdoctoral Fellow/Research Associate, Dept. of Biochemistry & Molecular Genetics, University of Virginia, Charlottesville, Virginia, USA. Advisor: Joyce Hamlin, Ph.D. Research topic: The modulation of DNA replication by transcription, using the CHO DHFR origin as a model system.						
Nov 1997 to Oct. 2000:						

Postdoctoral Fellow/Research Associate, Dept. of Medical Biochemistry & Genetics, Texas A & M University, College Station, Texas, USA.

Advisor: Geoffrey Kapler, Ph.D.

Research topic: The identification of proteins involved in DNA replication in the ciliate 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.

Thesis topic: Elucidation of the mechanism of action of the Type III restriction enzyme R.EcoPI.

Administrative Assignments

Member, Departmental Research Committee

Member, Board of Research Studies

Member, Faculty of Interdisciplinary and Applied Sciences

Member, CIF Committee, UDSC

Member, Institutional Biosafety Committee

Member, Institutional Animal Ethics Committee

Member, Ad hoc Committee on Recruitment and Promotions

Member, Management Committee, Geetanjali Hostel

Member-Secretary, Institutional Committee for Stem Cell Research

Member, Governing Body, Sri Venkateswara College

Chairperson (Interim), Governing Body, Aryabhata College

Areas of Interest / Specialization

Molecular Biology: DNA replication and chromatin modifications

Subjects Taught

Recombinant DNA Technology

Microbial Genetics

Molecular Biology

Research Guidance

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

Publications Profile

Chandra U, Yadav A, Kumar D, **Saha S** (2017). Cell cycle stage-specific transcriptional activation of cyclins mediated by HAT2-dependent H4K10 acetylation of promoters in *Leishmania donovani*. *PLoS Pathog.* Sep 22;13(9):e1006615. Impact factor: 6.6

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. Impact factor: 4.3

- 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. Impact factor: 10.2
- Goswami, K, Arora, J, & Saha, S. (2015). Characterization of the MCM homohexamer from the thermophilic euryarchaeon *Picrophilus torridus*. *Scientific Reports* **5**: 9057 DOI: 10.1038/srep0907. Impact factor: 4.3
- Arora, J, Goswami, K, & Saha, S. (2014). Characterization of the replication initiator Orc1/Cdc6 from the archaeon *Picrophilus torridus*. *J Bacteriol.* **196**: 276-286. Impact factor: 3.14
- 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. Impact factor: 2.3
- 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. Impact factor: 2.8
- 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. Impact factor: 2.69
- 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. Impact factor: 2.3
- Kumar, D, Mukherji, A & Saha, S. (2008). Expression and subcellular localization of ORC1 in *Leishmania major*. *Biochem Biophys Res Commun.* **375**, 74-79. Impact factor: 2.46
- 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. Impact factor: 9.41
- 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. Impact factor: 4.12
- 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. Impact factor: 10.2
- 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. Impact factor: 4.63
- 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. Impact factor: 3.27

S.No.	Project Title	Funding agency	Amount	Sanction date and Duration
1.	Investigating DNA replication protein	DST	~49.5 lakhs	2015-2018
Saha, S. & Rao, D. N. (1997).	Cdc45 in <i>Leishmania donovani</i> affect ATP-dependent investigation of <i>Mol. Biol. Cell.</i> 7 , 341-354. Impact factor: 4.67	EcoPI restriction enzyme that	~49.5 lakhs	2016-2019
Saha, S. & Rao, D. N. (1995).	family histone acetyltransferases Elp3a and (Elp3b) in the hydrolysis is required for DNA cleavage by EcoPI restriction enzyme. <i>J. Mol. Biol.</i> 247 , 559-567. Impact factor: 4.63			

Conferences and presentations:

Swati Saha (2018). H4K10 acetylation mediated by histone acetyltransferase HAT2 regulates transcriptional activation at different cell cycle stages. Invited lecture given at the 59th Annual Conference of Association of Microbiologists of India & International Symposium on Host-Pathogen Interactions, Hyderabad, India (9th – 12th December, 2018).

Swati Saha (2018). HAT2-dependent H4K10 acetylation modulates transcriptional activation in cell cycle stage-dependent manner. Invited lecture given at International Conference on Innovations for the Elimination and Control of Visceral Leishmaniasis, New Delhi, India (28th – 30th November, 2018).

Swati Saha (2018). Transcriptional activation mediated by HAT2-dependent H4K10 acetylation in cell cycle stage-linked manner in *Leishmania donovani*. Invited lecture given at Genome Biology 2018: Mechanisms in health and disease, Bangalore, India (13th – 14th July, 2018).

Research Projects (Major Grants)

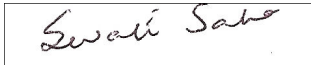
Awards and Distinctions

- 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

1. *Editing*
2. *Reviewing*
Nucleic Acids Research, Cell Reports, PLoS journals
3. *Advisory*
4. *Committees and Boards*
5. *Memberships*
Association of Microbiologists of India
Society of Biological Chemists of india
International Society of Protistologists
6. *Office Bearer*

Other Activities


Signature of Faculty Member