Cluster Innovation Centre

... Evolving Senses

Dissolving Boundaries...

Faculty Performa

	Office: Room No. 1 First Floor, Sports Com Delhi Unive Delhi 11000 Lab: Epigenetics	Cluster Innovation plex, G.C. Narar ersity, North Can	on Centre ng Road npus		
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	Lab: Epigenetics		Biology Lal		
	Epigenetics	and Chromatin I	Biology Lal		
	Room No-C		0.	b	
	Room No-G-2 (Ground Floor)				
	DREAM B	uilding			
	Near Gate N	No. 4			
	Delhi Unive	ersity, North Can	npus		
	Delhi 1100	07, India			
Office	(+91) 11-27	7666706, Extensi	ion: 132		
Residence	C-3, II Floor, Dev Bhoomi Apartments, Vijay			, Vijay	
	Colony, 41 Feet Road, Sant Nagar, Burari, Delhi-				
	110084				
Mobile	(+91) 97640	036065			
	jspurohit@c sachin.joges	cic.du.ac.in, sh@gmail.com			
	http://ducic.ac.in				
I	Mobile	Mobile (+91) 97640 jspurohit@c sachin.jogen	Mobile 110084 (+91) 9764036065 jspurohit@cic.du.ac.in, sachin.jogesh@gmail.com	Mobile 110084 (+91) 9764036065 jspurohit@cic.du.ac.in, sachin.jogesh@gmail.com	Mobile (+91) 9764036065 jspurohit@cic.du.ac.in, sachin.jogesh@gmail.com

सकुल

केंद्र

िनवप्रवर्तन

Degree	Institution	Subjects/Topics		
Ph. D. (2009)	Delhi University	Purification and characterization of a novel histone		
		H3 N-terminus specific protease from chicken and		
		bovine liver		
M. Tech (2002)	IIT Kharagpur	Agricultural and food Engineering		
M. Sc.(2000)	Sambalpur University	Life Sciences with Genetics special paper		
3. Sc.(1998)	Sambalpur University	Zoology (Hons), Chemistry and Botany		
GATE (2001)	Organized by IIT	Life Sciences		
(All India Rank 94)	Kharagpur			
CSIR-JRF (2002)	CSIR	Life Sciences		
	Biochemistry and Molecular	Biology Cluster Innovation Centre University of Delhi		
 Asst. Professor, North Campus, Asst. Professor (November 201 Asst. Professor, November 2010 	Delhi (from August 10, 2015, , Department of Zoology, Sm 0 to August 2015) , KIIT School of Biotechnolog	Biology, Cluster Innovation Centre, University of Delhi, continuing) nt. C.H.M. College, Ulhasnagar, Thane, Mumbai y, KIIT University Bhubaneswar (October 2007 to nasthali Vidyapith University, Tonk, Jaipur (July 2007 to		
 Asst. Professor, North Campus, Asst. Professor (November 201 Asst. Professor, November 2010 Lecturer, Biosc October 2007). 	Delhi (from August 10, 2015, , Department of Zoology, Sm 0 to August 2015) , KIIT School of Biotechnolog D) iences and Biotechnology, Ba	continuing) nt. C.H.M. College, Ulhasnagar, Thane, Mumbai y, KIIT University Bhubaneswar (October 2007 to		
 North Campus, Asst. Professor (November 201 Asst. Professor, November 2010 Lecturer, Biosc October 2007). Administrative 	Delhi (from August 10, 2015, , Department of Zoology, Sm 0 to August 2015) , KIIT School of Biotechnolog D) iences and Biotechnology, Ba	continuing) nt. C.H.M. College, Ulhasnagar, Thane, Mumbai y, KIIT University Bhubaneswar (October 2007 to		

- Member Secretary DRC, Cluster Innovation Centre (January 2023-continuing)
- Deputy Dean, Academic Affairs, University of Delhi (October 2021-February 2023)
- Course Coordinator of Integrated M. Tech Biotechnology and M.Sc. Biotechnology at KIIT University Bhubaneswar (2007- 2010)
- Member, Purchase Committee, CIC (2015-continuing)
- Member, Infrastructure and Space Committee (2021-continuing)
- Member, Academic Committee, CIC (2021-continuing)
- Convenor, Store Committee (2020-2022)
- Member, Store Committee (2022-continuing)

Areas of Interest / Specialization

- Epigenetics and Chromatin Biology
- Public health and diseases
- Biochemistry and Molecular Biology

Subjects Taught

(Teaching the following courses at M.Sc. / B. Sc. /B. Tech / M. Tech. level since 2007).

- Genetics
- Molecular Biology
- Instrumentation and Biotechnology
- Network Biology
- Systems Biology
- Biodefense and Bioengineering
- Exploring living systems
- Ayurveda and Nutrition
- Forensic Chemistry

Research Guidance

- As Co-supervisor, 1 student completed Ph.D. at KIIT University, Bhubaneswar (2009).
- 4 students pursuing Ph. D. as Supervisor/Joint Supervisor at Department of Zoology, Delhi University.

Publications Profile

- A Singh, SB Modak, MM Chaturvedi, JS Purohit* SWI/SNF Chromatin Remodelers: Structural, Functional and Mechanistic Implications, Cell Biochemistry and Biophysics, 2023 1-21.
- 2. A Singh, S Verma, SB Modak, MM Chaturvedi, JS Purohit* Extra-nuclear histones: origin, significance and perspectives, Molecular and Cellular Biochemistry 2021; 477 (2), 507-524.
- 3. PP Panda, M Bohot, MM Chaturvedi, JS Purohit* Purification and partial characterization of vinculin from chicken liver nuclear extract Biologia, 2021; 76 (4), 1349-1357.
- Sudhir Verma, Jogeswar S. Purohit , Anshu Arora , Sonal Sinha , Madan Mohan Chaturvedi* Liver regeneration: metabolic and epigenetic regulation Hepatoma Res 2021;7:16 0.20517/2394-5079.2020.122.

- Singh N, Purohit JS, Shanti S, Singh A, Panigrahi AK, Chaturvedi MM* Characterization of the N-terminally clipped histone H3 (Δ H3) from old chicken and rat liver. Int J Clin Exp Pathol. 2017, 10 (5), 5334-5342.
- AK Tiwari, P Panda, JS Purohit* Evaluation of sub-cellular distribution of glutamate dehydrogenase (GDH) in Drosophila melanogaster larvae, Acta histochemica 2014: 116 (2), 297-303.
- 7. **JS Purohit**, RS Tomar, AK Panigrahi, SM Pandey, D Singh , MM Chaturvedi, Chicken liver glutamate dehydrogenase (GDH) demonstrates a histone H3 specific protease (H3ase) activity in vitro, Biochimie 2013, 95 (11), 1999-2009.
- P Panda, MM Chaturvedi, AK Panda, M Suar, JS Purohit*, Purification and characterization of a novel histone H2A specific protease (H2Asp) from chicken liver nuclear extract 2013, Gene 512 (1), 47-54.
- Babu K, Garg S, Mohapatra PK, Fernandez PX, Purohit JS* Comparison of nutritional values of different varieties of onions cultivated in India. International Journal of Integrative sciences, Innovation and Technology. 2012; 1:4: 25-31 (ISSN 2278-1145).
- Purohit JS*, Chaturvedi MM, Panda P, Histone proteases: the tale of tail clippers. International Journal of Integrative sciences, Innovation and Technology. 2012; 1: 1: 51-60 (ISSN 2278-1145). (Impact Factor 0, Citation#2)
- Panda P, Suar M, Singh D, Pandey SM, Chaturvedi MM, Purohit JS*, Characterization of Nuclear Glutamate Dehydrogenase of Chicken Liver and Brain. Protein Pept Lett. 2011, (12):1194-1203 (Impact Factor 1.9, Citation # 5).
- MM Chaturvedi, JS Purohit, RS Tomar, AK Panigrahi, An Irreversible Modification of Histone H3: Identification and Characterization of Histone H3specific Protease from Chicken Liver, 2010 The FASEB Journal 24, lb64-lb64
- Purohit JS, Dutta JR, Nanda RK, Banerjee R*, Strain improvement for tannase production from co-culture of Aspergillus foetidus and Rhizopus oryzae. Bioresource Technol. 2006 97(6):795-801 (Impact Factor 4.9, Citation of the paper # 53).

Book Chapters:

- Jogeswar Satchidananda Purohit^{*}, Biplab Sarkar, Madan Mohan Chaturvedi & Pragnya Panda Creation of Synthetic Cell: From the Concept of Life to Revisiting the Origin of Life, Biochemistry and Biotechnology Vol. II, Daya Publishing House Delhi, 2014 (ISBN: 9789351243120).
- Purohit JS and Chaturvedi MM*, Chromatin and Aging. Topics in Biomedical Gerontology. 2017. Page 205-241, Springer Press, Singapore (ISBN: 978-981-10-2154-1).
- Purohit, J.S., Singh, N., Hussain, S.S., Chaturvedi, M.M. (2020). Attaining Epigenetic Rejuvenation: Challenges Ahead. In: Rath, P. (eds) Models, Molecules and Mechanisms in Biogerontology. Springer, Singapore. https://doi.org/10.1007/978-981-32-9005-1_9

Conference Organization/ Presentations (in the last three years)

Conference and workshops:

(Attended more than 30, some of them represented where acted as resource person or oral or poster presentations).

Invited talks/oral presentations:

- J.S. Purohit, S.M. Pandey, M.M. Chaturvedi, A protease to remove epigenetic mark(s) of histone H3: Characterization of a histone H3 specific protease from chicken liver, 30th All India Cell Biology Conference, University of Delhi, February 2-4, 2007.
- J. S. Purohit, "Add some color to your diet", resource person, training and workshop on environment and health, Ministry of environment and forest, India organized at KIIT University Bhubaneswar, November 21-22, 2008.
- 3. **J.S. Purohit,** "Why to do Research", resource person, Research communication for societal change, CEPP and KIITCIE, KIIT University Bhubaneswar, August 12, 2009.
- 4. J.S. Purohit, Creating living Systems, DST Inspire talk, KIIT University Bhubaneswar, April 2010.
- J.S. Purohit, S.M. Pandey, R.K. Mishra, S.Garg, P.C. Mathew, P.X. Fernandez, M.M. Chaturvedi, Characterization of a histone H3 specific protease, Emerging trends in Biological Sciences, the present era, Birla College, Kalyan, University of Mumbai, February 1, 2011.

- 6. **J. S. Purohit,** S.M. Pandey, Divya Singh, M.M. Chaturvedi, Characterization of a moonlighting histone H3 specific protease from chicken liver nuclei, Modern research trends and applications in Life sciences, Elphinstone College, Fort, University of Mumbai, January 7, 2012.
- 7. J. S. Purohit, Epigenetics and human Diseases, BASE annual camp, HBCSE, September 2013
- 8. J. S. Purohit, The history of DNA discovery and beyond, BASE annual camp, HBCSE, September 2014.
- 9. J. S. Purohit, Experiments in Science education for school teachers, Goa Science Center, Goa, November 2014.
- J. S. Purohit, Experiments in Science education for school teachers, Swami Narayan School, Vapi, February 2015.
- 11. J. S. Purohit, Experiments in Science education for school teachers, Akal University, Bathinda, Punjab February 2017.
- 12. J. S. Purohit, Experiments in Science education for school teachers, in International Indian Science Festival organized by Vigyan Prasar and DST, Anna University, Chennai October 13-16, 2017.
- 13. J. S. Purohit, Experiments in Science for Science Village, International Indian Science Festival organized by Vigyan Prasar and DST, On line Mode October 2020.
- 14. Invited talk on Molecular Biology for National level examinations by M.Sc. Life Science students, organized by INYAS and ATBS, Mumbai, May 17, 2021
- 15. Invited Talk on Age dependent epigenetic change in the chromatin: Identification and characterization of histone H3 specific proteases in chicken liver, 5th INCD-7-9 October, 2022.

Poster presentations:

- 1. Purification and characterization of a histone H3 specific protease from chicken liver, **J.S. Purohit**, S.M. Pandey, M.M. Chaturvedi . Emerging trends In Biological sciences, Organized in KIIT University, 2007
- Identification and establishment of assay system for a novel histone H2A specific protease from chicken liver nuclei, Pragnya Panda and Jogeswar S. Purohit* Laboratory of Chromatin Biology and Human Diseases. School of Biotechnology, KIIT University, Bhubaneswar, 751024, Advances in Biomedical research, Organized in KIIT University, 2009.

Workshops attended:

- 1. One day workshop for organizers of DST Inspire, IISER, Pune 2010.
- 2. Indo-Japan workshop on understanding of chromatin structure functions, January 20-23, 2005.
- 3. Completed orientation program at Sambalpur University (2013) and awarded as one of the best three participants.
- 4. Completed Refresher course in Life sciences at Sambalpur University (2014) and awarded as one of the best three participants.

Completed Refresher course in Life sciences at CPDHE, Delhi University (2019).

Research Projects (Major Grants/Research Collaboration)

- 1. Age dependent epigenetic changes in mice sperm chromatin. ICMR adhoc Grant 2020-23 (56 lakhs)
- 2. Characterization of the H3 specific protease (H3ase) activity of the chicken liver glutamate dehydrogenase (GDH). (DST-SERB-EMR grant 2016-17, **62.74 lakhs**).
- 3. Characterization of the novel histone H2A specific protease from chicken liver nuclear extract (UGC major research project, sanctioned December 2014, **11.55 lakhs**).
- 4. Biophysical and biochemical characterization of GDH as a H3 specific protease from chicken liver (Minor Research project from University of Mumbai, Completed 2015).
- 5. Establishment of assay system for characterization of a histone H2A specific protease from chicken liver (Minor Research project from University of Mumbai, completed in 2013).

Awards and Distinctions

Recognition awards and Honors:

International Recognitions:

- 1. **Team leader (Biology)** of Indian team for International Junior Science Olympiads (IJSO) 2013, held in Pune, India.
- 2. **Team leader (Biology)** of Indian team for International Junior Science Olympiads (IJSO) 2014, held in Mendoza, Argentina.
- 3. Acting as Judge for UA global Undergraduate Innovation Awards, organized by Dublin Iceland

since 2018.

4. **International expert for Academic committee** for International Junior Science Olympiads (IJSO) 2021, held in Dubai, UAE.

Association With Professional Bodies

- Subject Co-coordinator (Biology) of Vidyarthi Vigyan Manthan, DST, Vigyan Prasar Initiative for 2018-19, 2019-20.
- Academic committee member of Vidyarthi Vigyan Manthan, DST, Vigyan Prasar Initiative for 2017-18.
- Associated with Junior Science Olympiads, organized by HBCSE since 2012.
- Judge for The global Undergraduate Awards, 65 Strand Street Great, Dublin 1 2019 onwords.
- Life member of ISTE since 2007.

Other Activities

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Signature of Faculty Member

(Updated in July 2023)