Cluster Innovation Centre

...Evolving Senses
Dissolving Boundaries...

संकुल नवप्रवर्तन केंद्र

Faculty Profile

Title	**Dr.**	**First Name**	**Jogeswar S.**	**Last Name**	**Purohit**	**Photograph**

Designation	Assistant Professor
Address	Room No. 115 First Floor, Cluster Innovation Centre Sports Complex, G.C. Narang Marg Delhi University, North Campus Delhi 110007, India
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Educational Qualifications

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
B.Sc.(1998)	Sambalpur University	Zoology (Hons), Chemistry and Botany
GATE (2001) (All India Rank 94)	Organized by IIT Kharagpur	Life Sciences
CSIR-JRF (2002)	CSIR	Life Sciences

Career Profile

- Asst. Professor, Biochemistry and Molecular Biology, Cluster Innovation Centre, University of Delhi, North Campus, Delhi (from August 10, 2015, continuing)
- Asst. Professor, Department of Zoology, Smt. C.H.M. College, Ulhasnagar, Thane, Mumbai (November 2010 to August 2015)
- Asst. Professor, KIIT School of Biotechnology, KIIT University Bhubaneswar (October 2007 to November 2010)
- Lecturer, Biosciences and Biotechnology, Banasthali Vidyapith University, Tonk, Jaipur (July 2007 to October 2007).

Administrative Assignments

Course Coordinator of Integrated M. Tech Biotechnology and M.Sc. Biotechnology at KIIT University Bhubaneswar (2007- 2010).

Areas of Interest / Specialization

- Chromatin modification and remodeling
- Age dependent epigenetic changes in chromatin
- Protein purification from native and bacterially expressed

Subjects Taught

Teaching Genetics, Molecular Biology, Instrumentation and Biotechnology, Network and systems Biology at B. Sc. /B. Tech /M.Sc. / M. Tech. level since 2007.

Research Guidance

As Co-supervisor, 1 student completed Ph.D. at KIIT University, Bhubaneswar (2009).

2 students registered for Ph. D as Joint-supervisor and two students registered under sole supervision for Ph. D. at Department of Zoology, Delhi University.

Publications Profile

1. Panda, P.P., Bohot, M., Chaturvedi, M.M. *et al.* Purification and partial characterization of vinculin from chicken liver nuclear extract. *Biologia* **76,** 1349–1357 (2021). https://doi.org/10.1007/s11756-021-00691-3

2. Verma S, Purohit JS, Arora A, Sinha S, Chaturvedi MM. Liver regeneration: metabolic and

epigenetic regulation. *Hepatoma Res* 2021;7:16. http://dx.doi.org/10.20517/2394-5079.2020.122.

3. 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.

4. Tiwari A, Panda P, **Purohit J.S*** Evaluation of Sub-cellular Distribution of Glutamate Dehydrogenase (GDH) in Drosophila melanogaster Larvae. Acta Histochimia, 2014, 116 (2), 297-303 (Impact factor 1.65).

5. **Purohit JS**, Tomar RS, Panigrahi AK, Pandey SM, Singh D, Chaturvedi MM* Chicken liver glutamate dehydrogenase (GDH) demonstrates a histone H3 specific protease (H3ase) activity in vitro, Biochimie. 2013, 95(11):1999-2009. (Impact factor 3.2, Citation #06)

6. Panda P, Chaturvedi MM, Suar M, **Purohit JS*** Purification and characterization of a histone H2A specific protease from chicken liver, Gene 2013, 512: 1: 47-54. (Impact factor 2.5, Citation # 6).

7. Babu K, Garg S, Mohapatra PK, Fernandez PX, **Purohit JS*** Comparison of nutritional values of different varieties of onions cultivated in Indi**a.** International Journal of Integrative sciences, Innovation and Technology. *2012*; 1:4: 25-31 (ISSN 2278-1145).

8. **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)

9. 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).

10. **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:

1. 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).

2. 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).

3. Purohit JS, Singh N, Hussain SS, Chaturvedi MM*, Attaining epigenetic rejuvenation: Challenges ahead. 2020 Models, Molecules and Mechanisms in Bio-gerontology. Springer, Singapore Press. (ISBN 978-981-13-3585-3).

Conference Organization/ Presentations (in the last three years)

Conference and workshops:

(Attended more than 25, some of them represented where acted as resource person or oral or poster presentations).

Invited talks/oral presentations:

1. **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.

2. **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.

5. **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, E**xperiments in Science education for school teachers, Goa Science Center, Goa, November 2014.

10. **J. S. Purohit, E**xperiments in Science education for school teachers, Swami Narayan School, Vapi, February 2015.

11. **J. S. Purohit, E**xperiments in Science education for school teachers, Akal University, Bathinda, Punjab February 2017.

12. **J. S. Purohit, E**xperiments 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, E**xperiments in Science education for school teachers (Science Village), in International Indian Science Festival organized by Vigyan Prasar and DST, Online mode, December 22-25, 2020.

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

2. 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.
5. Completed Refresher course in Life sciences at CPDHE, Delhi University (2019).

Research Projects (Major Grants/Research Collaboration)

1. Analysis of age dependent epigenetic changes in mice sperm chromatin (ICMR Adhoc Grant 2021-2024, **61 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. Judge for The global Undergraduate Awards, 65 Strand Street Great, Dublin 1 2019, 2020, 2021.

Other Recognitions:

4. **First prize** for oral presentations faculty group on national conference on Emerging trends in Biological Sciences, the present era, Birla College, Kalyan, University of Mumbai, February 1, 2011
5. **Second prize** for oral presentations faculty group on National conference on Modern research trends and applications in life Sciences, January 7, 2012.
6. **Editorial board member** of Journal of Integrative sciences, Innovation and Technology (ISSN-2278-1145).
7. **Editorial board member** of Global advanced research journal of Medicine and medical Sciences
8. **Editorial board member** of International journal of Zoology Research.
9. **Awarded as best three participants** in Orientation course, attended in Sambalpur University, 2013.
10. **Awarded as best three participants** in Refresher course, attended in Sambalpur University, 2014.

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.
- Life member of ISTE since 2007.

Other Activities

Jogeswar S Purohit