

Curriculum Vitae



Dr Sampat Narayan Satapathy

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Education

Year	Degree	Board/ University	Class/Division
2025	Ph.D. (Biological Science)	AcSIR	1 st
2017	M.Sc. (Biotechnology)	Ravenshaw University, Odisha	1 st
2015	B.Sc. (Biotechnology)	OUAT, Odisha	1 st with Distinction
2010	S.S.C.	CHSE, Odisha	1 st
2008	H.S.C.	BSE, Odisha	1 st

PhD thesis title: Metal-induced conformational changes in G-quadruplex: a biophysical study

Thesis supervisors: Dr Umakanta Subudhi, Principal Scientist and Associate Professor, CSIR-IMMT

Research Interest

DNA Nanotechnology, G-quadruplex, Z-DNA, Biosensors, Structural biophysics

Awards and Honors

- **Best Poster Award** at the international conference AMEES 2025, IIT Bhubaneswar.
- **Qualified ICAR ARS NET** examination, 2018.
- **Qualified DBT JRF** examination (Category I), 2017.
- **Qualified GATE** examinations in 2017 and 2018 with AIR 199 and 120, respectively.
- **Qualified CSIR NET JRF**, December 2017, with AIR 74.
- **Qualified CSIR UGC NET LS**, June 2017.
- **Qualified TIFR GS** examination, 2017.
- **Awarded Merit Scholarship** by the Department of Science and Technology (DST), Government of Odisha, for pursuing a Master's degree in Biotechnology.
- **Qualified IIT JAM** examination, 2015, with AIR 167.

Research Publication

- **Satapathy, Sampat N.**, Partha S. Nial, Kiran D. Tulsian, and Umakanta Subudhi. "Light rare earth elements stabilize G-quadruplex structure in variants of human telomeric sequences." *International Journal of Biological Macromolecules* 254 (2024): 127703. **I.F.=8.3**
- **Satapathy, Sampat N.**, and Umakanta Subudhi. "Molecular mechanism of heavy rare earth elements-induced G-quadruplex DNA: Structural switch in human telomeric variants." *International Journal of Biological Macromolecules* 329 (2025): 147817. **I.F.=8.5**

Oral and poster presentations

- Satapathy, S. N., Nial, P. S., Tulsian, K. D., Subudhi, U. Praseodymium promotes G-quadruplex formation in human telomeric variants: Role of Thymine on structural stability. Frontiers in Material for Technological Applications (FIMTA-2022), CSIR-Institute of Minerals and Materials Technology, Bhubaneswar during 3rd - 5th August 2022.
- Satapathy, S. N., Nial, P. S., Tulsian, K. D., Subudhi, U. Induction of G-quadruplex structures in human telomeric variants by Cerium: A novel insight into DNA-Metal interactions. 4th International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE-2024), NIT Rourkela during 29th November- 1st December 2024.
- Satapathy, S. N., Nial, P. S., Tulsian, K. D., Subudhi, U. Unravelling Terbium induced G-quadruplex formation: structural insights and biological relevance. International conference on Biological Innovation, Technology, Engineering and Sciences (BITES-2024), NIT Rourkela in association with NIT Uttarakhand during 18th - 20th December 2024.
- Satapathy, S. N., Subudhi, U. Investigating Gadolinium induced G-quadruplex formation in human telomeric variants: structural and thermodynamic insights. Advanced Materials for Energy, Environment & Sustainability (AMEES – 2025), IIT Bhubaneswar during 16th -18th May 2025.