

Curriculum vitae

ATALA BIHARI JENA

C/o-Pathani kumar jena

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Date of Birth: - 01/05/1990

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CAREER OBJECTIVE:

To pursue a career in an esteemed organization holding a responsible position which would enhance my skills to work in competitive environment and carve a winning edge for the organization

EDUCATIONAL DETAILS: (B.Sc. onwards)

EXAMINATION PASSED	YEAR OF PASSING	BOARD/ UNIVERSITY	GRADE
PhD (Biotechnology)	2017	UTKAL B.B.S.R	Pre- Submitted
M.sc (Bioinformatics)	2012	UTKAL B.B.S.R	FIRST CLASS
B.sc (Biotechnology)	2010	UTKAL B.B.S.R	FIRST CLASS

WORK EXPERIENCE :

- 2years' experience in Yeshwant college of Biotechnology & Bioinformatics, Parbhani-(MH) as an ASSISTANT PROFESSOR in Biotechnology Department.
- Wet lab research work experience in CDA (Chillika development authority) as SRF.
- PhD research continues at Utkal University's P.G. Department of Biotechnology.

M.Sc PROJECT:-

Title: “computational approach for the study of NDM-1 β -lactamase for identification of protein inhibitor by molecular modeling and virtual screening method.”

Project summary :- NDM-1 metallo β -lactamase is a protein that forms disease in absence of zinc metalloenzyme. Due to efficient that zinc metallo ion that hydrolyses B-lactum antibiotics in bacteria K.PNEUMONIAE that ndm-1 protein are found and recently that also found in bacteria ENTEROBACTERIACEAE. The functions of NDM that give the genetic plasticity to the plasmid that carry the genes responsible for producing the resistant mechanism so it is necessary to create a good drug.

Ph.D PROJECT:-

Title: “Conformational dynamics of biomolecules exposed to polycyclic aromatic hydrocarbons”

Project summary:- Since biomolecules particularly DNA and protein are the key players of biochemical pathways, how does hydrocarbons and its derivatives affects the structural and functional part of biomolecules is the key objectives of the proposed research work. Besides, PAHs have been reported to incur oxidative damages on the biomolecules. Therefore, their likely impact on oxidative stress and antioxidant defiance system will also be studied for the development of suitable antioxidant intervention for the amelioration of oxidative stress-induced cellular dysfunctions.

TECHNICAL KNOWLEDGE:-

Bioinformatics & Computational Biology

- Auto Dock
- MEGA-5
- Modeller
- Bio-Edit
- Chimera
- Discovery Studio
- Pymol
- Open Bibel
- Chem-sketch
- Cytoscape
- Hex

Wet lab Techniques

- Isolation and purification of DNA from plant, Animal and Microorganism
- RNA isolation
- cDNA Preparation

- PCR (Semi-quantitative & quantitative)
- Electrophoresis (Native, SDS-PAGE)
- Electrophoretic separation of DNA and RNA
- DNA Methylation studies (Global DNA Methylation& Specific DNA Methylation)
- Enzyme Assay (SOD, Catalase)
- Conformational study of Biomolecules (*In vitro* and *in silico*)

Handling of Equipments

- PCR (Thermo cycler)
- UV-Visible Spectrophotometer
- Fluorescence Spectrophotometer
- Gel Documentation Unit
- ELISA-Multiplate Reader
- Geldoc
- Biolog
- Cyclic voltammetry

RESEARCH ARTICLES :-

1. **Jena, A. B.,** Kanungo, N., Nayak, V., Chainy, G., &Dandapat, J. (2021). Catechin and curcumin interact with S protein of SARS-CoV2 and ACE2 of human cell membrane: insights from computational studies. **Scientific reports**, 11(1), 2043. <https://doi.org/10.1038/s41598-021-81462-7>
2. **Jena, A. B.,** Samal, R. R., Kumari, K., Pradhan, J., Chainy, G., Subudhi, U., Pal, S., & Dandapat, J. (2021). The benzene metabolite p-benzoquinone inhibits the catalytic activity of bovine liver catalase: A biophysical study. **International journal of biological macromolecules**, 167, 871–880. <https://doi.org/10.1016/j.ijbiomac.2020.11.044>
3. **Jena, A. B.,** Kanungo, N., Chainy, G., Devraji, V., & Dandapat, J. (2021). 8-Hydroxydihydrosanguinarine (8-HDS), a pyridone containing analogue of sanguinarine, can be a potential inhibitor of S protein and M protease of SARS CoV2: Insights from computational studies. **Research square**, <https://doi.org/10.21203/rs.3.rs-153786/v1>
4. Rath, S., Perikala, V., **Jena, A. B.,** & Dandapat, J. (2021). Factors regulating dynamics of angiotensin-converting enzyme-2 (ACE2), the gateway of SARS-CoV-2: Epigenetic modifications and therapeutic interventions by epidrugs. **Biomedicine & pharmacotherapie**, 143, 112095. <https://doi.org/10.1016/j.biopha.2021.112095>
5. **Jena, A. B.,** and Shasank Sekhar Swain. Computational Biomodelling and Analysis of 3D Structure of HUMAN Proto-oncogene c-Rel: A Tumorigenesis Activator Protein. **Research & Reviews: Journal of Microbiology and Biotechnology** (2013). 2 (4), e-ISSN:2320-3528 p-ISSN:2324-2286.

Abstract Presented (Oral Presentation) in the National workshop on emerging trends in life science for sustainable Development, P.G. Department of life Science, Rama Devi Women's University, Bhubaneswar, India:- "Benzoquinone-Induced conformational changes in Bovine liver catalase: Insights from experimental and computational approaches" on the date 9/02/2019.

Awards/ Honours

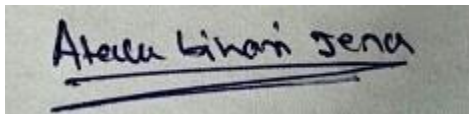
1. **Research Excellence Award** for the year 2021 from **Institute of Scholar, 2nd Cross, 7th Block Sir M V Layout, Muddhinapalya Bengaluru-560091, Karnataka, India.** recognising outstanding achievements in the field of life sciences.
2. **Best research awards** for the year 2021 from **Sciencefather, International Research Awards on Science, Health and Engineering**

Professional Membership

Life member of "**Institute of Scholar**"

DECLARATION :-

I hereby declare that above mentioned particulars are true to best of my knowledge and belief.

A photograph of a handwritten signature in black ink on a light-colored surface. The signature reads "Atala Bihari Jena" and is underlined with two parallel lines.

Atala Bihari Jena