SANGRAM KESHARI SAHU

Date of Birth: 11/09/1994 (Age 23)
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RESEARCH EXPERIENCE

- **Project (May'17 to Present):** Cell type-specific transcriptome profiling of Shoot Apical Meristem (SAM) in the model plant *Arabidopsis thaliana* using RNA-Seq experiment and finding LncRNAs and microRNAs involved in cell differentiation. Also worked on Gene Regulatory Network (NGR) and developed Web- Application. (Dept. Of Biotech DBT, Govt. of India funded Project)
  Supervisor: Dr Ram Yadav (ryadav@iisermohali.ac.in)
  Indian Institute of Science Education and Research (IISER), Mohali, Punjab

- **M.Sc. Thesis (Nov'2016 – May'2017):** A transcriptomic study on cold stress in two Indian rice (*Oryza Sativa)* varieties using RNAseq analysis.
  Supervisor: Dr Basant k. Tiwary (basant@bicpu.edu.in)
  Centre for Bioinformatics, **Pondicherry University**, Pondicherry, India.

- **Summer Internship (2016):** Mahseer cold fish genomic DNA extraction, Develope Primer design Perl script, and downstream genome analysis with CLC Workbench.
  Supervisor: Dr Mastaque A. Laskar
  At St. Anthony's College, DBT-DST project lab, Shillong, Meghalaya, India.

- **Undergraduate project (2015):** Study on the different kind of medicinal plants found in regions of Ganjam district, Odisha.
  Supervisor: Dr Bijaya Kumar Mohanty. HOD, Dept. of Botany,
  Khallikote Autonomous College, Berhampur, Odisha, India.

EDUCATION

2015-2017	**Master's Degree in Bioinformatics** (CGPA 8.5/10)
	Pondicherry University, India
2012-2015	**Bachelor's Degree in Botany Honours**
	Khallikote Autonomous College, Berhampur, India
2010-2012	**Higher Secondary Education**
	Khallikote Junior College, Berhampur, India

OTHER DEGREE

- **PG Diploma in Biotechnology**
  Pondicherry University in 2016.
- DOEACC **"O"-level Advanced Computer Examination**
  By **NIELIT**, Govt. of India in 2014.
- **Post-Graduate Diploma in Computer Application**
  From Odisha Computer Academy in 2013.

RESEARCH AREA OF INTEREST

- Computational Genomics. NGS data analysis (RNA-seq, Chip-seq, Hi-C) and its applications.
- Systems Biology and Network analysis.
- Algorithm development and Web-tool design for Biological applications.

COMPUTATIONAL SKILLS

- **Programming Languages:** C/C++, BASH, Python, Perl and R Language.
- **Operating Systems:** Linux (Ubuntu and Fedora), Windows, Mac.
- **Front End:** HTML, Markdown.
- **Backend:** PHP, RDBMS, SQL and MS Excel, Github.
- **Databases and Web Server:** MySQL, Apache and XAMPP.

BIOINFORMATIC SKILLS

- **Multi-Omic High-Throughput Sequencing:** Genomics and Transcriptomics.
- **Databases:** PDB, NCBI-SRA, GEO, EMBL-ENA, TAIR, PLAZA.
- **Sequence Retrieval Tools**: Entrez, SRA toolkit.
- **Structural Bioinformatics:** Molecular Dynamic Simulation and Docking.

MOLECULAR BIOLOGY TECHNIQUES

- Electrophoresis.
- Chromatography.
- PCR (Gradient, Real-time and Colony PCR).
- DNA and RNA extraction.

POSTER PRESENTATION

- **A transcriptomic study on cold stress in two Indian rice (*Oryza Sativa*) varieties using RNAseq. (Abstract Proceedings: https://doi.org/10.24870/cjb.2017-a187)**
  NextGen Genomics, Biology, Bioinformatics and Technologies (**NGBT**) Conference, from Oct 2nd - 4th 2017 in Bhubaneswar, Odisha.
- **Bioinformatics approaches to CRISPR-Cas9 technology – A review**
  Indian Science Congress, Pondicherry Chapter on 27th February 2017.

SCHOLARSHIP AND ACHIEVEMENTS

- **Merit scholarship** in Higher Secondary Education. (2011-2012)
- **Medhabruti Scholarship** from Odisha Govt. (2013-2015)
- **Full Scholarship** to attend NGBT 2017 conference in Bhubaneswar, Odisha, India.
- **Scholarship for Outreach participant** in Computational Science Symposium 20017 at IISc, Bengaluru, India.

SEMINAR AND CONFERENCES

- NextGen Genomics, Biology, Bioinformatics and Technologies (**NGBT**) Conference, from Oct 2nd - 4th 2017 in Bhubaneswar, Odisha.
- **"Computational Science Symposium" – Outreach participate** IISc, Bengaluru in March 2017
- **"National Workshop on Data Science Research and Biological Data Management"** by DST, Govt. Of India. January 2017 at Trichy, India.
- **"Molecular Dynamics and Simulation"** Workshop by Dr Debanath Pal
  Centre for Bioinformatics, Pondicherry University in November 2016.
- **"Recent trends on Computational Chemistry and Drug Design"**
  By DBT, India at Khallikote Autonomous College in 2013.
- **Indian Science Congress,** lifetime member and a regular participant on every annual program.

REFERENCE

- **Dr Ram Yadav**
  Plant genetics and development lab, Dept. of Biological Sciences
  Indian Institute of Science Education and Research (IISER), Mohali, Punjab, India.
  Contact: ryadav@iisermohali.ac.in

- **Dr Basant K. Tiwary**
  Centre for Bioinformatics, Pondicherry University, Pondicherry, India
  Contact: basant@bicpu.edu.in

DATE AND SIGNATURE:

1-09-2018