

CURRICULUM VITAE

MANAS KUMAR JAGDEV


Personal Data:

Father's Name : Bhagaban Jagdev
Mother's Name : Shantilata Jagdev
Date of Birth : 02.03.1986
Sex : Male
Nationality : Indian
Marital Status : Single

Permanent Address:

S/o Bhagaban Jagdev
At-B/c-18,bhimobhoi Colony,
Madhuban, Paradeep,
Jagatsinghpur,
PIN:-754142
Orissa.

Contact Number:

 **+919438155954**

Email ID:

Manas.jagdev2008@gmail.com

Career Objective

Aspiring to pursue Ph.D. in the area of protein crystallography.

Educational Profile

Degree : MASTER OF SCIENCE
Discipline : **Biotechnology**
Yrs of study : 2009-2011
% of marks : **68.45% (7.62 CGPA)**
University : SOA University, Bhubaneswar, Orissa.

Degree : BACHELOR OF SCIENCE
Discipline : **Biotechnology (Hons.)**
Yrs of study : 2006-2009
CGPA : **58.20%**
University : Utkal University, Bhubaneswar, Orissa.

Course : INTERMEDIATE
Discipline : **Science**
Yrs of study : 2003-2005
% of marks : **55%**
College : Paradeep College, Paradeep, Jagatsinghpur,
Orissa.
Board : C.H.S.E.

Course : MATRICULATION
Discipline : **All Subjects**
Yrs of study : 2003
% of marks : **64.20%**
Institution : Bethany Convent School,
Paradeep, Orissa.
Board : I.C.S.E.

STRENGTHS: A sincere, hardworking researcher who has patience and tolerance to his credit; disciplined with good interpersonal skills and a keen observer. Creative, highly motivated and deadline-savvy. Superior work habits and layout skills.

Research Skills

- **Molecular Cloning** – Primer designing, PCR amplification, Restriction digestion, Ligation, Site-directed mutagenesis
- **Protein Expression** – In bacterial system; Optimization for soluble protein expression and scaling up
- **Protein Purification** – Affinity Chromatography, Size exclusion chromatography and Ion exchange chromatography; Handling of AKTA Pure machine (GE Healthcare) and DuoFlow machine (Bio-Rad)
- **Protein Crystallization** – Hanging Drop and Sitting drop vapour diffusion methods – manual as well as with robot (Formulatrix NT8)
- **Crystal Data Collection and Data Processing** – In-house and Synchrotron X-Ray Diffraction data collection for protein crystals, processing of collected datasets by soft-wares such as iMosflm, CCP4 suite and COOT

Publications

- Mohapatra C*, **Jagdev MK***, Vasudevan D. 2017. Crystal structures reveal N-terminal Domain of *Arabidopsis thaliana* ClpD to be highly divergent from that of ClpC1. **Scientific Reports** (In Press). [* Equal first authors].
- **Jagdev MK***, Subhadarshane B*, Vasudevan D, Behera RK. Structural and biophysical studies reveal the potential to control iron release by introducing mutations in the four-fold channel of m-ferritin. (To be submitted). [* Equal first authors].
- Subhadarshane B, Mohanty A, **Jagdev MK**, Theil EC, Vasudevan D, Behera RK. Surface charge dependent separation of modified and hybrid ferritin in native PAGE: An implication in separating large proteins. (To be submitted).
- **Jagdev MK**, Lewis K, Vasudevan D. Structural basis of mycobacterial inhibition by Lassomycin. (To be submitted).

Poster Presentations

- **Manas Kumar Jagdev**, Chinmayee Mohapatra, Dileep Vasudevan. **2016**. Investigating the structural basis of mycobacterial inhibition by natural products targeting ClpC1. Poster presented at the **EMBO Conference on Bacterial Morphogenesis, Survival and Virulence: Regulation in 4D**, Thiruvananthapuram (27th November to 1st December 2016).
- **Manas Kumar Jagdev**, Chinmayee Mohapatra, Dileep Vasudevan. **2016**. Structural studies on mycobacterial ClpC1 - a novel anti-tuberculosis drug target. Poster presented at the **12th Indo-Australian Biotechnology Conference**, Bhubaneswar (07th to 09th August 2016).
- **Manas Kumar Jagdev**, Chinmayee Mohapatra, Dileep Vasudevan. **2015**. Structural characterization of caseinolytic protease-associated chaperone proteins. Poster presented at the **13th Conference of the Asian Crystallographic Association (AsCA)**, Kolkata, India (05th to 08th December 2015).
- Ashish Kumar, **Manas Kumar Jagdev**, Dileep Vasudevan. **2014**. Structural basis for histone mimicry by dengue virus capsid protein. **International Symposium/Workshop on New Advances in X-ray Diffraction and Cryo-electron Microscopy**, New Delhi (15th to 17th December 2014).

Conference Participation

- **12th Indo-Australian Biotechnology Conference**, Bhubaneswar (07th to 09th August 2016).
- **13th Conference of the Asian Crystallographic Association (AsCA)**, Kolkata, India (05th to 08th December 2015).

Research Project Experience

- Summer project on "**Drug Formulation**" from Bio Lab "Nature and Nature Pvt.ltd", Bhubaneswar in 2007.
- Workshop on "**Bioinformatics: Converting data into Knowledge (BCDK)**" with Dr. SURAJIT BASAK, NICED at CBT, SOA University, Bhubaneswar in 2010.
- Six month project on "**Expression, Purification and Characterization of Mouse Leukemia Inhibitory Factor**" at IMGENEX INDIA Pvt. Ltd, Bhubaneswar in 2011.
- Worked in a project with the title "**Structural analysis of ClpC1 protein from *Arabidopsis thaliana* and its various domains**" at Institute of Life Sciences, Bhubaneswar.
- Worked in a project with the title "**Structural characterization of m-ferritin mutants from bull frog**" at Institute of Life Sciences, Bhubaneswar.
- Worked in a project with the title "**Structural basis of mycobacterial inhibition by Lassomycin**" at Institute of Life Sciences, Bhubaneswar.
- Working in a SERB-funded project with the title "**Host nucleosomes forming a docking station for Dengue virus capsid protein C - a structural analysis**" at Institute of Life Sciences, Bhubaneswar.

Work Experience

- Research Trainee at Imgenex India Pvt. Ltd, Bhubaneswar, 2011.
- Microbiologist in Sambit Aqua, Cuttack, 2012-2013.
- Chemist/Microbiologist in Spring Resources Pvt. Ltd, Cuttack, 2013.
- Lab Technician in the Laboratory of Macromolecular Crystallography at Institute of Life Sciences for two years (Oct 2013 – December 2015).
- Senior Research Fellow in the Laboratory of Macromolecular Crystallography at Institute of Life Sciences (December 2015 onwards).

Achievements

- Single-handedly completed a crystallographic project starting from cloning to structure refinement of AtClpC1 NTD; the crystal structure was solved to 1.2 Å resolution and co-ordinates have been submitted to Protein Data Bank under the id: 5GUI (release waiting publication).
- Single-handedly completed another crystallographic project starting from cloning to structure refinement of *Mycobacterium tuberculosis* ClpC1 NTD; the crystal structure was solved to 1.2 Å resolution in complex with the peptide Lassomycin.
- Crystallized, collected data and solved the structure for 14 different mutants of m-ferritin protein from bull frog.

Languages Known

English, Oriya, Hindi.

Declaration

I hereby declare that all information provided above are true and correct to the best of my knowledge and I hold myself responsible for any irregularities if found.

**Place: Bhubaneswar
Date:**

Yours faithfully,

Manas Kumar Jagdev