

Bhanu Prakash Jagilinki

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RESEARCH INTERESTS

Protein Biochemistry of metalloproteins
Structural Biology
Bioinformatics

RESEARCH EXPERIENCE

POST-DOCTORAL RESEARCH

[MIGAL – Galilee Research Institute](#) April 2016 – December 2018
ERC Post-Doctoral Research Fellow under the guidance of Dr. Dror Noy
[Rutgers University](#) August 2017 – October 2017
Collaborative Post-Doctoral Research under the guidance of Prof. Vikas Nanda
[Max Planck Institute for Chemical Energy Conversion](#) May 2017 – June 2017
Collaborative Post-Doctoral Research under the guidance of Prof. Wolfgang Lubitz

GRADUATE RESEARCH

[Advanced Centre for Treatment Research and Education in Cancer](#) August 2009 – January 2016

MASTERS RESEARCH

[University of Hyderabad](#) September 2007 – May 2008

OTHER RESEARCH EXPERIENCE

[Tata Institute of Fundamental Research](#) December 2006 – January 2007

EDUCATION

Advanced Centre for Treatment, Research and Education in Cancer, Navi Mumbai, India

Ph.D. in Life Sciences (August 2009 - January 2016)

Thesis title: “Structural and Molecular Characterization of an Extracellular signal Regulated Kinase (ERK1/2) in Association with Ribosomal S6 Kinases”

University of Hyderabad, Hyderabad, India.

Master of Science (M.Sc.) in Biochemistry, (July 2006-May 2008)

Master’s dissertation: “Effect of Glutathione on U266 Myeloma cell lines and Murine Splenic

Lymphocytes"

Osmania University, Hyderabad, India.

Bachelor of Science (B.Sc.) in Biotechnology, Microbiology and Chemistry (July 2003-April 2006)

FELLOWSHIPS AND AWARDS

- ✓ Received Boehringer Ingelheim Fonds travel grant for short term visit to Max Planck Institute - Chemical Energy Conversion (MPI-CEC), Germany
- ✓ Homi Bhabha National Institute (HBNI) Fellowship for attending International Conference in Israel, June 2015
- ✓ Sam Mistry International Travel Fellowship, June, 2015
- ✓ Awarded University Grants Commission (UGC) SRF fellowship for Ph.D. 2011-2014
- ✓ Awarded University Grants Commission (UGC) JRF fellowship for Ph.D. 2009-2011

RESEARCH PUBLICATIONS

- **Bhanu P. Jagilinki**, Nikhil Gadewal, Harshal Mehta, Hafiza Mahadik, Vikrant Pandey, Anamika, Ulka Sawant, Prasad A. Wadegaonkar, Peyush Goyal, Satish Kumar & Ashok K.Varma. **Conserved residues at the MAPKs binding interfaces that regulate transcriptional machinery**. *Journal of biomolecular structure & dynamics*. 2015; Vol. 33, No. 4, 852–860. doi: 10.1080/07391102.2014.915764
- **Bhanu P. Jagilinki**, R.K Choudhary, Pankaj S Thapa, Nikhil Gadewal, M.V.Hosur, Satish Kumar, Ashok K Varma. **Functional basis and biophysical approaches to characterize the C-terminal domain of human-Ribosomal s6 Kinase 3**. *Cell Biochemistry & Biophysics*, June, 2016, pp 1-9, doi: 10.1007/s12013-016-0745-6

MANUSCRIPT UNDER REVIEW

- **Probing multinuclear iron-sulfur protein biogenesis by *de novo* design**. *Proceedings of the National Academy of Sciences of the United States of America*

MANUSCRIPT UNDER PREPARATION

- **Structural analysis of a minimal *de novo* designed iron sulfur protein with a non-natural fold**

ORAL PRESENTATION

- Oral presentation at the **4th Israel Society For Biotechnology Engineering (ISBE)**, 17 December 2017, Tel Aviv, Israel. **“*De Novo* Design of a Non-Natural Fold for an Iron-Sulphur Cluster Proteins and Biophysical Characterization of Coiled-Coil Iron-Sulphur Protein-1 (CCIS-1)”**.

POSTER PRESENTATIONS

- Poster presented at the **19th IUPAB & 11th EBSA congress**, 16-20 July 2017, Edinburgh, United Kingdom. “***In-vivo* assembly and characterization of CCIS, an *in-silico* designed [4Fe-4S] cluster protein**”.
- Poster presented at the **3rd Solar Fuels I-Core Workshop**, 12-15 September 2016, Nahsholim, Israel. “**Design and assembly of artificial four-iron four sulfur clusters proteins**”.
- Poster presented at the **Platinum Jubilee of Tata Memorial Centre on ‘A Conference of New Ideas in Cancer – Challenging Dogmas’** 26-28 February 2016, Mumbai, India. “**Studies of Protein-Protein Interactions in the MAPK pathway to understand transcription activity**”.
- Poster presented at the **Indo-French conference on ‘Application of Structural Biology in Translational Research & Structure Guided Drug-Design’** 19-20 November 2015, ACTREC, Navi Mumbai, India. “**Biophysical characterization of RSK 1 and RSK 3 CTKD from *Escherichia coli***”.
- Poster presented at the **International Conference on Structural Genomics 2015 – Deep Sequencing Meets Structural Biology – (ICSG2015-DSMSB)**, 7 -11 June 2015, Weizmann Institute of Science, Rehovot, Israel. “**Protein folding pattern for RSK 3 CTKD purified from *Escherichia coli* inclusion bodies**”.
- Poster presented at the **2nd Global Cancer Genomics Symposium (GCGC)**, 19-20 November 2012, ACTREC, Navi Mumbai, India. “**Expression and purification of human Ribosomal S6 Kinase-1 (hRSK1)**”.

EXPERTISE AND SKILLS

Molecular Biology and Biochemical Techniques: PCR, SDM, Molecular Cloning, Plasmid isolation, RNA extraction from tissues, Northern blotting, DNA Agarose gel Electrophoresis, SDS-PAGE, Native-PAGE and Tris-Tricine gel electrophoresis.

Protein Biochemistry: Chromatography (Affinity, SEC, IEC & HIC), Protein purification from inclusion bodies, Purification of anaerobic proteins, Western Blotting, MALDI/TOF-TOF, Ammonium Sulphate precipitation, Electrochemistry (Potentiometric titrations and Protein Film Voltammetry), Crystallization trials (Hanging drop and sitting drop), crystal condition optimization, ITC, SPR, Chemical cross linking, Pull-down and limited Proteolysis assays.

Spectroscopy: Circular Dichroism (CD), Fluorescence spectroscopy, Dynamic Light Scattering (DLS), Static Light Scattering (SLS), Small-angle X-ray scattering (SAXS), Electron Paramagnetic Resonance (EPR) and Fe⁵⁷ Mössbauer spectroscopy.

Cell Culture: Handling mammalian and insect cell lines (*Drosophila Schneider 2*), Transfection, Cell cytotoxicity assay (MTT), apart from handling *E. coli* competent cells.

Immunology: ELISA, Immunohistochemistry, Liquid Scintillation Counting and other basic immunological techniques.

Bioinformatics: ExpASY tools (UniProtKB, Translate, ProtParam, BLAST, Jpred, PROCHECK, ProSA-web, Disprot, PSIPRED, Reverse Translate), Igor Pro, Sequence Massager, Primer3, BioEdit, Mascot Peptide mass fingerprinting, K2D3, MTMDAT-HADDOCK, I-TASSER, Verify_3D, PyMOL, ATSAS for SAXS analysis.

REFERENCES

Prof. Paul Falkowski

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New Brunswick, NJ
Phone: 8489323426
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Prof. Vikas Nanda

Associate Professor
Rutgers University
Piscataway, NJ
Phone: 8484459810
Email: nanda@cabm.rutgers.edu

Dr. Dror Noy

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Dr. James Birrell

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MPI - Chemical Energy Conversion
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