

SAMHITHA URS R

Nationality: Indian

Mail ID: samhithaurs82@gmail.com

Samhitha.Urs.Ramaraje.Urs@ukbonn.de

Phone No: +49 15777128653, +91 9066300960

Skype ID: samhithaurs82

LinkedIn: linkedin.com/in/samhitha-urs-8a9a2b118



RESEARCH EXPERIENCE

Ph.D student

Project: "Exploring the conformational landscape of Factor VIII B-domain in order to generate an all atom full length structure of the coagulation factor VIII protein"

Institut für Exp. Hämatologie und Transfusionsmedizin (IHT)

January 2020-Present

Universitätsklinikum Bonn, Venusberg Campus-01

Faculty of Pharmacy, University of Bonn, Bonn, Germany

PI: PD. Dr. Arijit Biswas (IHT)

Prof. Dr. Diana Imnhof (Faculty of Pharmacy, University of Bonn)

Prof. Dr. Johannes Oldenberg (IHT, Director)

Project Assistant

Project: "DNA Polymerase theta (POLQ) as a cancer drug target"

Synthetic Biology,

August 2018 - October 2020

Institute of Bioinformatics and Applied Biotechnology (IBAB) Bangalore, India

PI: Dr.H.S.Subramanya (Director),

Dr. Sanjay Ghosh, Ph.D.

Project Trainee

Project: "Construction of a plasmid for the depletion of BLM helicase"

January 2018 - June 2018

Department of Biochemistry, Indian Institute of Science (IISc) Bangalore, India

PI: Prof. Ganesh Nagaraju, Ph.D.

EDUCATION

Integrated Masters in Molecular Biology (5 years)

Yuvaraja's College, University Of Mysore, Mysore, India

2018

Courses: Molecular Biology, Microbiology, Cell Biology, Immunology, Molecular Genetics, Genetic Engineering.

Percentage: 87.5%

Karnataka State Board Pre-University, Class 12th

2013

MMK & SDM Pre-University College, Mysore. India

Percentage: 73.8%

Karnataka State Board Secondary School, High School

2011

Nirmala High School, Mysore, India

Percentage: 94.5%

RESEARCH SKILLS

Molecular Biology

Genomic DNA, Plasmid DNA Bacmid DNA isolation and purification (mini- and maxi-preps), DNA gel analysis, quantification and extraction, Standard, Gradient and Splicing by Overlap Extension-SOE PCR technique, Restriction enzyme based cloning, Gibson cloning, Agarose gel electrophoresis, Gel extraction of DNA, RNA isolation, cDNA synthesis and RT-PCR. Primer Designing: SnapGene.

Genetic Engineering

RNAi mediated- shRNA knockdown studies in mammalian cells.
CRISPR-Cas9 knockdown studies in mammalian cells.
Indel study: Verification of CRISPR-Cas9 indels using PCR and T7 Endonuclease assay

Cell culture	Handling and maintenance of U2OS (Osteosarcoma), HeLa and HeLa mutant cell line (HeLa S3), MDAMB231(Breast Cancer), Human Embryonic Kidney cells (HEK293T), Insect cells (SF9, SF21) Transfection methods: Neon Transfection, Electroporation, Calcium Chloride, and Lipofectamine.
Protein Biology	Affinity chromatography (Ni-NTA,) (SP/Q), AKTA Pure- Gel-filtration, Ion-Exchange chromatography Isothermal Titration Calorimetry- ITC Bradford Assay of protein estimation, SDS-PAGE, Native PAGE, Western Blotting,CBB Silver staining, Dialysis. Transcreener ADP assay- Screening of inhibitors.
Molecular Docking	YASARA, Gromacs based MD Simulations, Docking , Schrodinger, AutoDock-Vina, PyMol, Biosolve IT- Virtual screening of Inhibitors
Microscopy	Light, confocal and Fluorescence microscopy.
Crystallography	Crystallization setup- Vapour diffusion, Hanging drop method, Crystallization screening.
Microbiology	Competent cell preparation- Calcium Chloride and INOUE methods. Transformation, plating and liquid culture of bacteria, Glycerol Stock preparation
Basic Bioinformatics	Sequence Analysis: BLAST, FASTA, CLUSTAL-W, EMBOSS, GENE TOOL, Biological databases-NCBI, GeneDB,PDB, Profam. ExPaSy-ProtParam

WORKSHOPS AND CONFERENCES

Poster Presentation- Foundation Day- "DNA Polymerase theta as a cancer drug target"	2019
Presenter	
Institute of Bioinformatics and Applied Biotechnology, Bangalore, India	
Hands on workshop - "Advanced Computer-Aided Drug Design and Computational Biology"	2019
Participant	
Schrodinger Inc, Bangalore	
B4 workshop- Bharat Boston Building Program on Synthetic Biology, DBT funded	2019
Student Volunteer	
Institute of Bioinformatics and Applied Biotechnology, Bangalore, India	
Indo-US conference " Transcription, Chromatin Structure, DNA repair, and Genomic Stability"	2018
Participant	
Indian Institute of Science, Bangalore, India	

MEMBERSHIPS

Student member of Indian Science Congress Association- Since 2016
Student member of the Association of Microbiologists of India- Since 2015

REFERENCES

Dr. Arijit Biswas. Ph.D.,PD

AG, FXIII group
Room No. 2.308,
Institut für Exp. Hämatologie und Transfusionsmedizin (IHT)
Universitätsklinikum Bonn, Venusberg Campus 1, Gebäude 43
Bonn-Venusberg 53127

Mail ID: aribis@gmail.com
arijit.biswas@ukbonn.de

Dr. Devaki N S, M.Sc., Ph.D., Course coordinator

Integrated M.Sc. Molecular Biology
Yuvaraja's College, University of Mysore,
Mysore, India-570005

Mail ID: devakineerkaje@gmail.com