Gurprit

Ph.D.

Contact

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sekhongurprit.github.io

About

I'm a computational biologist. I have experience working with protein folding, protein-ligand interactions, molecular dynamics, microarray and RNAseq data anaylsis, and microbial genome wide association studies. I have worked in state-of-the-art HPC environments. I'm open to adapting to different roles and responsibilities.

Profiles

twitter

gurprit

github

sekhongurprit

Work

CSIR-IMTECH

May 2022 – Present

Research Associate

Molecular basis of β-lactam resistance in Acinetobacter baumannii: Genomics and Structural bioinformatics approaches.

Panjab University

Dec 2020 – Dec 2021

Research Associate

Consequences of ribonucleotides insertion in genomic DNA for gene regulation.

Education

Panjab University

Jan 2015 – Nov 2020

Ph.D pu.ac.in

Thesis title: Studies on human aldose reductase.

CCSHAU

Jul 2009 – Dec 2011

M.Sc. hau.ac.in

Bioinformatics

Awards

ICMR Research Associateship

May 2022

Awarded by **Indian Council of Medical Research**

For investigating the genetic basis of carbapenem resistance in Acinetobacter baumannii.

UGC Junior Research Fellowship

Jul 2015

Awarded by **University Grants Commission**

For Research in Life Sciences.

Certificates

UGC-NET

Jun 2014

Issued by **University Grants Commission** www.ugc.gov.in

Publications

Role of Cys-298 in specific recognition of glutathione by aldose reductase [First Author]

Feb 2021

Published by **Taylor & Francis** www.tandfonline.com/journals/tbsd20

The study concludes that precise movement of Cys-298 side-chain is crucial for specific recognition of glutathione by aldose reductase. The results have important consequences for enzyme-substrate recognition and could be valuable for the design/discovery of differential inhibitors against aldose reductase.

Human aldose reductase unfolds through an intermediate [First Author]

Nov 2019

Published by **F1000 Research** f1000research.com

The study investigates chemical-inducced equilibrium unfolding and thermal denaturation of aldose reductase. An intermediate state was discovered during chemical-induced equilibrium unfolding, which was absent during thermal denaturation. Physiological relevance of the intermediate state and its absence during thermal denaturation are discussed.

Skills

BASH Scripting | Python | R

Statistical analysis

Molecular docking

Molecular dynamics simulations

Genome assembly, annotation, and variant calling

Microarray & RNASeq data analysis

Molecular and structural biology

Languages

English
Advanced

Hindi
Intermediate

Punjabi
Intermediate

Interests

Sports
Football Running Walking

Coocking
Indian

Books
Reading

Open Source
All of it

References

— Dr. Ranvir Singh, Associate Professor, Department cum NCHGSR, Panjab University, Chandigarh, India, Email: ranvir@pu.ac.in.

— Dr. Balvinder Singh, Senior Principal Scientist, CSIR-IMTECH, Chandigarh, India, Email: bvs@imtech.res.in.

— Dr. Karhthikeyan Subramanian, Chief Scientist, CSIR-IMTECH, Chandigarh, India, Email: skarthik.imtech.res.in.