Gurprit

Ph.D.

Contact

Email

sekhongurprit@gmail.com

Phone

+91-8054180735

Website

sekhongurprit.github.io

About

I'm a computational biologist. I have experience working with protein folding, protein-ligand interactions, molecular dynamics, microbial genomics, and statistical genetics. 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** pubmed.ncbi.nlm.nih.gov/33627036

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** pubmed.ncbi.nlm.nih.gov/31723418

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 and annotation

Variant calling

Microarray & RNA-Seq Analysis

Molecular biology and genetics

Structural biology

Languages

English
Advanced

Hindi
Intermediate

Punjabi
Intermediate

Interests

Sports
Football Running Walking

Coocking
Indian

Books
Reading

Open Source
All of it

References

Awaiting

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

Awaiting

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

Awaiting

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