

DR. ARSLAN SEHGAL

Assistant Professor, Department Of Genomics & Bioinformatics,
CUVAS



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https://scholar.google.com/citations?hl=en&user=Tx74drs&view_op=list_works&sortby=pubdate

<https://www.researchgate.net/profile/Sheikh-Sehgal>

ABOUT ME

Computational biologist specializing in computer-aided drug design (CADD) and structural bioinformatics, with expertise in molecular docking, molecular dynamics simulations, and virtual screening for therapeutic discovery. My research focuses on identifying novel drug candidates and vaccine targets for complex diseases, including cancer, neurodegenerative disorders, and infectious diseases. I have authored 68+ peer-reviewed publications (h-index =26), reflecting strong contributions to computational pharmacology and translational bioinformatics. My PhD from the University of Chinese Academy of Sciences focused on structure-based inhibition of mitophagy pathways (LC3–FUNDC1 interaction) and the verification of the screened compounds through wet-lab experiments. I also have experience in NGS-based genomic and metagenomic data analysis, including 16S rRNA microbiome profiling (OTU/ASV analysis), as well as clinical exome and whole genome sequencing (WGS) for variant identification (SNPs, CNVs) and annotation

PUBLICATIONS

Published 68 International Research/Review Articles | ~215 Impact Factor, 2150 Citations, 41 Principle and Corresponding Author Articles, 26 H-Index, 38 i10 Index

WORK EXPERIENCE

Assistant Professor (BPS-19), Department of Genomics and Bioinformatics | Cholistan University of Veterinary and Animal Sciences | Bahawalpur | Apr 2024 - Present

Lecturer (BPS-18), Department of Bioinformatics | The Islamia University of Bahawalpur | Bahawalpur | Apr 2022 - Apr 2024

Assistant Professor (IPFP and Visiting), Department of Bioinformatics | University of Okara | Okara | Aug 2020 - Apr 2022

Assistant Professor (Visiting), Department of Bioinformatics and Biotechnology | Government College University Faisalabad | Faisalabad | Aug 2019 - Aug 2020

Lecturer (OG-I), Department of Biosciences | COMATS University Islamabad, Sahiwal Campus | Sahiwal | Feb 2015 - Sep 2015

EDUCATION

PhD Cell Biology (Bioinformatics), University of Chinese Academy of Sciences, Beijing, China | 2019

• Thesis: Screening of novel compounds that target the interaction of LC3 and FUNDC1 for inhibition of Auto(mito)phagy

MS Bioinformatics, International Islamic University Islamabad, Islamabad | 2013

BS Bioinformatics, Government College University Faisalabad, Faisalabad | 2010

RESEARCH INTERESTS

- Computer-aided drug design (CADD) and computational pipelines for therapeutic discovery targeting cancer, neurological, and mitochondrial disorders
- Genomics-driven drug and vaccine discovery, including subtractive genomics, comparative genomics, reverse vaccinology, and immunoinformatics
- NGS-based genomic analysis, including clinical exome and whole genome sequencing (WGS) for variant identification (SNPs, CNVs)
- Microbiome and metagenomic analysis using 16S rRNA sequencing, including OTU/ASV-based diversity and microbial community profiling

TECHNICAL SKILLS

- Wet lab (DNA/RNA extraction, PCR, qPCR, Gel Electrophoresis, ELISA, Western blotting)
- Dry Lab (QIIME2 (Microbiome analysis, Molecular Docking (AutoDock, PyRx, MOE), MD simulation (Desmond), R (phyloseq, ggplot2)

INTERNATIONAL EXPOSURE

- PhD – China (UCAS, CAS and HZAU collaboration)
- Conferences in China and Singapore

RESEARCH PROJECTS (GRANTS)

PI – Computational Drug Design for Mitophagy (HEC Funded): Identification of novel compounds targeting LC3–FUNDC1