PERSONAL DETAILS & CONTACT

Name: Sushrut Kulkarni
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Location: Nashik

EDUCATIONAL QUALIFICATION

NAME OF THE DEGREE	SUBJECT	PERIOD
Master of Science	Molecular Biology	2018
Master of Science	Biotechnology	2017
Higher Secondary Education (HSC)	Physics, Chemistry, Mathematics, Biology, Information Technology and English	2012
Secondary School Education (SSC)	English, Hindi, Marathi, Mathematics, Science and Technology, Information Technology, Health and Physical Education, Social Service, Personality Development and Environmental Education.	2010

PROFESSIONAL EXPERIENCE

INSTITUTE	POST + FUNDING SOURCE	NAME OF THE ASSIGNMENT	PERIOD
CIIMS-ARC, Nagpur	Technical Support Scientist III Indian Council of Medical Research	Bacteriophage and one-health approach tackling AMR infections in humans, animals and environment	January 2025 to Present
CIIMS, Nagpur	Project Fellow	Routine Diagnostics	August 2024 to December 2024
CIIMS-ARC, Nagpur	Project Associate II	Indian SARS-CoV-2 Consortium on Genomics (INSACOG)	September 2023 to July 2024

	Department of Biotechnology, Government of India		
CIIMS, Nagpur	Laboratory Technician Department of Biotechnology, Government of India	Indian SARS-CoV-2 Consortium on Genomics (INSACOG)	January 2023 to August 2023
CIIMS, Nagpur	Project Fellow	Routine Diagnostics	2022 to 2023

RESEARCH & TECHNICAL EXPERTISE

• Data visualisation and interpretation of data for the detection of SARS-CoV-2 in a wastewater epidemiology-based study
• Generate interactive visualisations (e.g., heatmaps, phylogenetic trees, PCA plots) to represent microbial diversity, AMR gene distribution, and statistical trends.
• Conducting spatial data analysis to map AMR patterns across sample sources (human, animal, environmental) using GIS tools or R/Python libraries
• Established and optimised bioinformatics pipelines for metagenomic and whole-genome sequencing (WGS) data analysis.
• Taxonomic profiling, functional annotation, and antimicrobial resistance (AMR) gene prediction from metagenomic datasets.
• Identification and characterisation of AMR genes, virulence factors, and mobile genetic elements from bacterial whole-genome sequences.
• Lead wastewater analysis and in-sample collection, data collection (metadata and geospatial data) and in-depth analysis of 1,200+ wastewater samples, uncovering key contaminants, driving data-backed regulatory strategies that enhanced community health.
• Spearheaded training and skill development endeavors, providing mentorship to over 50 students from local and National level college students.
• Proficient in diagnostic analysis and instrument handling, including Conventional and RT-PCR, Gel electrophoresis, Automated DNA extraction machine, automated microbial culture analysis machine and ELISA machine.
• Coordinated cross-functional teams to streamline sample handling processes, achieving a significant increase in operational throughput while maintaining stringent quality control standards to meet state health regulations.

PUBLICATIONS

SR. NO	TITLE	AUTHOR LIST	JOURNAL	YEAR	IMPACT FACTOR	TYPE
1	Genotypic characterization of multi-drug resistant coliform	Prajakta A. Hatekar, Sushrut Kulkarni, Priti P. Yewale, A.	Canadian Journal of Biotechnology	2017	2.6	Open Access

	bacteria: Insights into their mechanisms of antibiotic resistance using Whole Genome Sequencing	Mandal, N.N. Nawani* and J. Jass				

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SR. NO	TITLE	APPLICANTS	AUTHORS	JOURNAL	YEAR
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CONFERENCES AND WORKSHOPS ATTENDED

SR. NO	TITLE	VENUE	ORAL/POSTER	AWARDS	YEAR
1.	Wastewater epidemiology as an early warning tool, to detect remnants of Covid-19 in Nagpur district, Maharashtra, India.	BITS, Goa	Poster	-	2023
2.	Molecular modeling and docking studies of deguelin with Cyclin D, Cyclin E and PI3γ proteins	CDAC, Pune	Poster	-	2016

ANY OTHER AWARDS RECEIVED

SR. NO	TITLE	AWARDS	YEAR
-	-	-	-

LIFE MEMBERSHIPS

- None