

Keerthana Vinod Kumar

Doctoral Researcher in Digital Health

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📄 <https://scholar.google.com/citations?hl=en&pli=1&authuser=1&user=fQREIEEAAAAJ>

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📍 Mumbai



Educational Background

- **Master of Technology in Medical Biotechnology**
Institution: Indian Institute of Technology Hyderabad
Year of Graduation: June 2023
GPA: 9.2
- **Bachelor of Engineering in Biotechnology**
NMAM Institute of Technology, Karnataka
Year of Graduation: February 2019
GPA: 8.56
- **XII**
Ursuline Senior Secondary School, Kannur
Year of Completion: 2014
GPA: 9.8

Professional Experience

- **Research Assistant**
Indian Institute of Technology Bombay
August 2023–Present
- **Teaching Assistant**
Indian Institute of Technology Hyderabad
August 2021–July 2023
- **Scientific Analyst**
Molecular Connections Pvt. Ltd., Bangalore
January 2020–August 2020

Internships

- **Industrial Microbiology**
Sangene Biotech and Research Center, Bangalore
15th December–31st December 2018
- **Banana Tissue Culture**
Hafi Biotech and Research Center, Kochi
1st July–22nd July 2017

Hard Skills

- Operating System: Windows/Linux/Ubuntu
- Languages: R, Python(Novice)
- Web Development: PHP, SQL, HTML
- Databases: PubMed, cBioPortal, GEO, GDC, DepMap, GDSC
- Others: Big data analysis (RNA/DNA seq), MS Office, ImageJ, XAMPP
- Handling Stirred Tank Bioreactor (STBR)
- Handling Microbial culture
- Gel electrophoresis
- Plant Tissue Culture
- UV-Vis Spectrophotometer
- Enzyme-linked immunosorbent assay (ELISA)

Soft Skills

- Good communicator
- Quick learner
- Teamwork
- Time management
- Problem-solving and critical thinking

About Me

Currently positioned as a Doctoral Researcher at IIT Bombay, I aim to leverage my comprehensive training and honed skills to effectively collect data, develop well-informed hypotheses, and operate as a skilled and adept researcher contributing meaningfully to society through my research endeavors

Academic Projects

- **PhD research area (tentative)**
AI-driven multi-omics disease prediction, metabolic disorder, personalized health, early disease risk assessment, biomarker discovery
- **M.Tech thesis**
AMLdb: A comprehensive multi-omics platform to understand the pathogenesis and to discover potential biomarkers and drug targets for acute myeloid leukemia
Supervisor: Dr. Rahul Kumar
- **B.E thesis**
Statistical Optimization of Saccharification Process Using Amorphophallus Paeoniifolius Tubers into Fermentable Sugars for Bioethanol Production in Stirred Tank Batch Reactor (STBR)
Supervisor: Dr. Ujwal P

Achievements



2023 (IITH) **Research Appreciation Award**



2021–2024 **GATE-BT (AIR 930) score 453**

Research Publications

- Rakshitha, S. P., **Keerthana, K. V.**, Anjuna, P., Sangam, S. G., Sandesh, K., Shet, V. B., ... & Mubarak, N. M. (2021). Statistical optimization of saccharification process using Amorphophallus paeoniifolius tubers into fermentable sugars for bioethanol production in stirred tank batch reactor (STBR). Biomass Conversion and Biorefinery, 1–9.
- Viswanathan, A., Kundal, K., Sengupta, A., Kumar, A., **Kumar, K. V.**, Holmes, A. B., & Kumar, R. (2022). Deep learning-based classifier of diffuse large B-cell lymphoma cell-of-origin with clinical outcome. Briefings in Functional Genomics.
- Advancement of in silico tools for stem cell research. Ambuj Kumar, **Keerthana Vinod Kumar**, Kunjulakshmi R, Kavita Kundal, Avik Sengupta, Rahul Kumar [Chapter "in press" for Elsevier's upcoming book "Computational Biology for Stem Cell Research.].
- **Kumar, K. V.**, Kumar, A., Kundal, K., Sengupta, A., Nishana, M., & Kumar, R. (2023). AMLdb: A comprehensive multi-omics platform to understand the pathogenesis and discover biomarkers for acute myeloid leukemia. bioRxiv, 2023–05.
- Kumar, A., **Kumar, K. V.**, Kundal, K., Sengupta, A., & Kumar, R. (2023). MyeloDB: A multi-omics resource for Multiple Myeloma. bioRxiv, 2023–05.
- Kunjulakshmi R, Ambuj Kumar, **Keerthana Vinod Kumar**, Avik Sengupta, Kavita Kundal, Simran Sharma, Ankita Pawar, Pithani Saikrishna, Mohammad Alfatah, Sandipan Ray, Bhavana Tiwari, Rahul Kumar. AgingBase: A Comprehensive Database of Anti-aging Peptides. [Article under consideration in the journal Cell Death Discovery]