

Kaumudi Bindumadhav Kalele

Pune, India.

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DOB: 16/01/1995

Mail ID: - kaumudi.kalele@gmail.com

Skills: -

- 1) Biosafety related activities such as donning and doffing of Powered air purifying respirator (PAPR), tyvek suit, sterilization, decontamination, emergency spill management and biohazard waste management
- 2) Bio-safety level-2 laboratory practices
- 3) Handled and carried out different viral outbreak investigations such as Zika, Crimean-congo hemorrhagic fever, Kyasanur forest disease and Nipah in different parts of the country.
- 4) Team leadership and management

Work History: -

- **Assistant Professor (March 2023 – Till date)**

PES Modern College of Arts, Science and Commerce, Pune, India

- Teaching B.Sc. Biotechnology students
- Guide for B.Sc. Biotechnology research projects
- Conduct theory and practical examinations
- Administrative duties of department

- **Project Technician-C (February 2019- March 2022)**

ICMR- National Institute of Virology, Pune, India

- Sample processing
- Nucleic Acid Extraction (Manual as well as Automatic)
- Real Time RT-PCR
- Next Generation Sequencing
- Agarose Gel Electrophoresis
- Sanger's Sequencing
- Data management

- **Laboratory Technician (September 2015 to July 2016)**

Prabhat Pathology Laboratory, Pune

- Biochemical testing of human samples
- Microbial Staining
- Delivering Reports

Education: -

- **Master of Science: Biotechnology**

B.K Birla College of Arts, Science and Commerce – University of Mumbai.

- **Bachelor of Science: Biotechnology**

Vidya Pratishthan's School of Biotechnology – Savitribai Phule Pune University

Research Projects worked on: -

- Countrywide survey of Nipah virus and Corona virus in different species of bats. (ICMR-NIV; 2020-2021)
- Molecular epidemiological analysis of SARS-CoV-2 circulating in different regions of India. (ICMR-NIV; 2020-2021)
- Evaluation of the immunogenicity and protective efficacy of inactivated SARS CoV-2 vaccine candidate in animal models. (ICMR-NIV, Pune-Bharat Biotech Int Ltd; 2020)
- Evaluation of Protective Efficacy of ZyCoV-D DNA Vaccine against SARS-CoV-2 Virus Challenge in Rhesus Macaques. (ICMR-NIV, Pune-Cadila Healthcare Limited; 2020)
- Propagation of new SARS CoV-2 variant isolate and characterization in cell culture and animal model. (ICMR-NIV; 2020)
- Surveillance for Zika virus infection in humans, India (ICMR-NIV; 2019-2021)
- Country-Wide Nipah Virus surveillance in Pteropus Bat. (ICMR-NIV; 2019-2020)
- Provide diagnostic for referred samples for viral hemorrhagic fever & unknown etiology and outbreak investigation. (ICMR-NIV; 2018-2021)
- A Retrospective Study to Determine the Association between Genetic Polymorphisms and Adverse Effects of Warfarin. (KEM Memorial Hospital, Dept of Pharmacology; 2018)
- Antimicrobial Activity of Endophytic Bacteria (BSc; 2015)

Publications: -

- Yadav PD, Ella R, Kumar S, Patil DR, Mohandas S, Shete AM, Vadrevu KM, Bhati G, Sapkal G, Kaushal H, Patil S, [...] Kalele K. Immunogenicity and protective efficacy of inactivated SARS-CoV-2 vaccine candidate, BBV152 in rhesus macaques. Nature communications. 2021 Mar 2;12(1):1-1.
- Sarkale P, Patil S, Yadav PD, Nyayanit DA, Sapkal G, Baradkar S, Lakra R, Shete-Aich A, Prasad S, Basu A, Dar L. First isolation of SARS-CoV-2 from clinical samples in India. The Indian journal of medical research. 2020; 151(2-3):244.
- Yadav P, Ella R, Kumar S, Patil D, Mohandas S, Shete A, Bhati G, Sapkal G, Kaushal H, Patil S, Jain R, [...] Kalele K. Remarkable immunogenicity and protective efficacy of BBV152, an inactivated SARS-CoV-2 vaccine in rhesus macaques..Preprint. Research square. 2020
- Nyayanit DA, Sarkale P, Baradkar S, Patil S, Yadav PD, Shete-Aich A, Kalele K, Gawande P, Majumdar T, Jain R, Sapkal G. Transcriptome & viral growth analysis of SARS-CoV-2-infected Vero CCL-81 cells. The Indian Journal of Medical Research. 2020; 152(1-2):70.

- Sahay RR, Dhandore S, Yadav PD, Chauhan A, Bhatt L, Garg V, Gupta N, Nyayanit DA, Shete AM, Singh R, Patil S, [...] Kalele K. Detection of African genotype in Hyalomma tick pools during Crimean Congo hemorrhagic fever outbreak, Rajasthan, India, 2019. *Virus Research*. 2020; 286:198046.
- Yadav PD, Sahay RR, Agrawal S, Shete A, Adsul B, Tripathy S, Nyayanit DA, Manrai M, Patil DY, Kumar S, Marwah V. Clinical, immunological and genomic analysis of the post vaccinated SARS-CoV-2 infected cases with Delta derivatives from Maharashtra, India, 2021. *Journal of Infection*. 2022 Apr 7.
- Yadav PD, Kaur H, Gupta N, Sahay RR, Sapkal GN, Shete AM, Deshpande GR, Mohandas S, Majumdar T, Patil S, Pandit P. Zika a Vector Borne Disease Detected in Newer States of India Amidst the COVID-19 Pandemic. *Frontiers in Microbiology*. 2022;13.
- YADAV PD, Sahay RR, Mohandas S, Radhakrishnan C, Gokhale MD, Balasubramaniam R, Abraham P, Gupta N, Sugunan AP, Khobragade R, George K. Nipah virus outbreak in Kerala state, India amidst of COVID-19 pandemic. *Frontiers in public health*. 2022 Feb 17:14.
- Also acknowledged in various papers.

Certification: -

- Participated in hands on workshop on Modern Analytical Techniques. (Modern College, Ganeshkhind. Department of Biotechnology; October 12-14, 2023)
- Workshop on strengthening national capacity on prevention, detection, and response to biological hazards and emergencies for Sri Lankan participants. (ICMR-NIV; July 20-26, 2019)
- Workshop on laboratory preparedness and response for handling and detection of high risk pathogens (Nipah, Ebola, CCHF, YF and MERS) for regional and state VRDLs. (ICMR-NIV; August 13 -17, 2019)
- An online webinar was arranged in collaboration with 3M India on “use of the Respirators and PAPR” for all the staff of BSL-4 facility (ICMR-NIV; November 6,2020)

Languages: -

- Hindi
- English
- Marathi
- German (A1 and A2 Level)