MAITTRE VYAS

Research Officer

CONTACT

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TECHNIQUES & SKILLS

- **Malaria Research Techniques**
- **Parasitology Culture**
- **Hybridoma Technology:(**Fusion, Screening, Characterization, expansion& Purification)
- **Chromatography:**(Immuno-affinity Column, Ni-NTA Column, DEAE, Protein G Column)
- **ELISA:** (Direct, Indirect and, Sandwich)
- **Western Blot & Dot Blot**
- **Electrophoresis:**(Native/SDS PAGE, Agarose gel electrophoresis)
- **Animal Handling:** (Mice and Rabbit) - immunization, blood collection and testing, Dissection, cell isolation.

EDUCATION

Veer Narmad South Gujarat University
Ph.D. in Biotechnology Pursuing
2021-Present
Shreemati Nathibai Damodar Thackersey Women's University (SNDT)
Bachelor of Education
2020-2021
Percentage:78.00%
Veer Narmad South Gujarat University
Masters in Biotechnology
2017-2019
Percentage:68.3%
Bachelors in Biotechnology
2015-2018
Percentage: 55.9%

WORK EXPERIENCE

Surat Raktadan Kendra and Research Centre, Surat
Research Officer-R&D
April 2023 to Present (2.5 Years)

SPAN Bio-products Pvt. Ltd., Surat
Research Officer -R&D
May 2019 to March 2023: (4 Years)

Bhagvan Mahavir College of Science & technology, Surat
Guest Lecturer
June 2019- July 2020 (1 year)

Shrey Pathology &Microbiology Laboratory, Surat
Lab Technician
Dec 2017 to Dec 2018 (12 Months)

Cultivation of Malaria parasites for the development of Native -pLDH antigen

Different combinations of blood cells and serum were utilized in this investigation for the cultivation of P. falciparum & P. vivax parasite cultures. Regularly, thin smear preparation was used to examine the morphology of the developing parasite culture to identify the various stages of parasite development. As well, growth culture was evaluated using RDT and ELISA assays. Collected raw materials will be used to purify native pLDH protein for the development and evaluation of diagnostic assays.

LANGUAGES

Gujarati (Native)
Hindi (Professional Working)
English (Professional Working)

REFERENCES

Dr. Ravishankaran R
Deputy Director Research
Surat Raktadan Kendra &
Research Centre Surat, Gujarat
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Prof. Anjali A. Karande
Retd. Professor –
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Dr. C.R. Pillai
Emeritus Scientist ICMR
National Institute of Malaria Research (NIMR) New Delhi
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Dr. Gavrav Shah
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&coordinator,
Department of Biotechnology
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Dr. Preeti Sharma
Assistant professor
Veer Narmad South Gujarat University Surat, Gujarat
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Development of Monoclonal Antibodies Using Native *Plasmodium falciparum*

Actively involved in the development of monoclonal antibodies targeting native *Plasmodium falciparum* antigens. This work includes antigen purification, hybridoma screening, and the characterization of antibodies to enhance diagnostic and therapeutic applications for malaria. The focus is on improving antigen specificity and ensuring scalability for future research and clinical use

The following monoclonal antibodies were generated, cultivated, amplified, and preserved against different recombinant and native antigens:
-Native pf-pLDH
-HRP-II
-plasmodium Vivax/falciparum
-HIV P24 etc.

Development of assay against various antigens
To design and evaluate a new assay, respective monoclonal antibodies were purified from ascites/culture supernatants. These antibodies were biotinylated and utilized to determine the most effective combinations of antibody pairs.

Training program

Managed development training program for college students and conducted practical training sessions on ELISA, Western Blot, and SDS-Page techniques.

WORKSHOPS ATTENDED

1) Attended hands on training on **Design and characterization of gene knockdown in *E. coli* using CRISPR interference system** at Indrashil University, Mehsana, Gujarat, 2024.
2) Gave poster presentation and awarded in national conference **32nd national Congress of Parasitology** at Indian Institute of science and research (IISER), Pune, Oct 2024
3) Gave Oral presentation in national conference **Recent advances in Sustainable Approaches for Biological Science (RASABIO-**2024) at VNSGU, Surat, Jan 2024
4) Attended and poster presentation and awarded in national conference **Biological Tools for Sustainable Environment (BTSE-2023)** at VNSGU, Gujarat.

Publication

ISOLATION, CHARACTERIZATION & PRODUCTION OF β-GALACTOSIDASE", Journal of Emerging Technologies and Innovative Research (JETIR) Jan 2020, Volume 7 Issue 1, p.g.1-6]