JABIYA ELIZA

Date of birth: 22/01/1998 | **Nationality:** Indian | **Gender:** Female |

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ABOUT ME

I'm currently working as a Research Assistant & Jr. Microbiologist at Central Research Laboratory, Believers Church Medical College Hospital since May 2021. I have been actively engaged in various works related to research and clinical diagnosis, contribute to the design of research projects by formulating hypotheses and identifying research questions, determine the appropriate methodologies, experimental models, and techniques to investigate specific microbiological phenomena. I also conduct different laboratory experiments to isolate, culture, and characterize microorganisms and viruses work with a variety of techniques, such as microscopy, molecular biology, genetic engineering, and biochemical assays, to study microbial growth, metabolism, genetics, and interactions, collect and analyse data generated from the experiments. This involves recording observations, measurements, and experimental outcomes, statistical methods and data analysis tools to interpret the results and draw meaningful conclusions.

WORK EXPERIENCE

03/05/2021 – CURRENT Tiruvalla, India
JR MICROBIOLOGIST/RESEARCH ASSISTANT BELIEVERS CHURCH MEDICAL COLLEGE HOSPITAL

1. Performs research related works on the cell structure and its function of various microorganisms which includes bacteria, virus, fungus algae and protozoa along with its genetic characteristics.
2. Perform and develops new method in the identification of toxins generated by microorganisms.
3. Should be knowledgeable in data analysis using computer model bio statistical tools.
4. Perform various experiments in the development of innovative products in terms of methodology, identify new products and evaluate obtained innovative products.
5. Perform routine laboratory and clinical tests assigned by the supervisor.
6. Conduct studies on the working of developing of new products with collaboration with other institutes for marketing purpose.
7. Identification of pathogens affection humans and environment and conduct studies on their behaviour.
8. Perform screening of drugs and medicines for research analysis and help other scientists in terms of result analysis.
9. Able to perform different studies using cells of living substances as the primary source of data.
10. Should help other team members and able to guide juniors.

EDUCATION AND TRAINING

15/04/2019 – 20/03/2021 Tamil Nadu
MSC APPLIED MICROBIOLOGY CMS College of Science and Commerce

Website https://cmscbe.com/

10/05/2016 – 17/03/2019 Tiruvalla, India
BSC MICROBIOLOGY St Marys College For Women

Website http://stmaryscw.com/

07/06/2014 – 23/03/2016 Chengaroor, India
HIGHER SECONDARY (12TH) St Theresa's Bethany Convent Higher Secondary School

Website https://www.sainttheresaschengaroor.yolasite.com/

02/05/2012 – 27/03/2014 Mallappally, India
HIGH SCHOOL (10TH) Mar Dionysius Senior Secondary School

Website https://mardionysius.in/

LANGUAGE SKILLS

Mother tongue(s): **MALAYALAM**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	B1	C1	C1	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

CONFERENCES AND SEMINARS

03/05/2021 Believers Church Medical College Hospital
Research Assistant

➢ Certified Microbiology Technologist with Association of Allied Health Professionals from 20/05/2022
➢ Biochemistry CME on "Modern Landscapes in Clinical Laboratories" organised by Department of Biochemistry Believers Church Medical College and Association of Clinical Biochemists of India (ACBI) Kerala Chapter on Feb 9th and 10th 2023
➢ 1st International Congress on Infectious Diseases and Clinical Pharmacy, ID CONGRESS 2023, "Making Antimicrobial Stewardship a Top Priority" organised by Believers Church Medical College on January20-23, 2023.
➢ Attended "BIOCON'22" conference organised by Department of Radiodiagnosis and Imaging in association with Indian Society of Radiographers and Technologists (ISRT) Kerala Chapter on 6th November at Believers Church Medical College Hospital.
➢ Workshop, Hands on Training- EXM3000 Extraction machine installation, operation, Calibration and maintenance" from Zybio on 15/05/2021
➢ Workshop, Hands on Training- The TruenatTM/TruelabTM, Real Time Quantitative micro- PCR system on 10/06/2021
➢ Secured First on Oral presentation in National Conference (Microfie'20) on "Preparation of Culture Media from Fresh Water Snail Slime" organised by Department of Microbiology, SNMV CAS, Coimbatore on 30th January, 2020.
➢ Completed 2-year programme in the "National Service Scheme" during the period 2014-2016.
➢ Actively participated in various traditional and local art forms of Kerala and secured "A" Grade in state level competitions.
➢ Basic life Science certificate from Believers Church Medical College Hospital 2023.

PROJECTS

03/05/2021 – CURRENT
Research Assistant

• Prepare high throughput budgets for different kinds of Government approved research works such as Microbiome projects.
• Successfully created different ways and standardised different protocols for Dengue Virus serotyping and its sequencing, GDH and toxin identification of Clostridium difficle, and biofilm formation of blood pathogens.
• Molecular characterization of dengue virus and its disease severity pattern among patients attending a tertiary care hospital (Diagnostic purpose)
• Detection of Clostridioides difficile toxin A (tcdA), toxin B (tcdB) genes by PCR in a Tertiary care Hospital in Kerala (Diagnostic purpose)

• Association between ABO RH-D antigen and platelets or fresh frozen plasma transfusion rate among dengue study subjects; a case control study (MSc. Dissertation project)
• Identification of Methicillin Resistant Staphylococcus aureus directly from automated blood culture bottles by polymerase chain reaction (MSc. Dissertation project)
• Detection of biofilm production among uropathogenic Escherichia coli and Klebsiella pneumonia and the correlation with antibiotic sensitivity pattern (MSc. Dissertation project)
• Comparison of different methods of DNA extraction for gram negative Bacteria from automated blood culture bottles (MSc. Dissertation project)
• Identification of multi drug resistant Acinetobacter species from respiratory specimen by PCR and the association of their antibiotic susceptibility pattern with biofilm formation (MSc. Dissertation project)
• Invitro biofilm formation by Staphylococcus species isolated from exudate and blood specimen and their correlation with antimicrobial susceptibility pattern (MSc. Dissertation project)
• Ongoing project- Isolation and identification of Covid-19 virus and Influenza virus from sewage water treatment plant.
• Upper respiratory disease- A pilot study on Influenza, Adeno, RSV.

AREA OF SPECIALIZATION

03/05/2021 – CURRENT
Research Assistant/ Jr Microbiologist

ANIMAL MODELS EXPERIMENTS
➢ Experienced in handling chick embryo and zebra fish model for research purpose
MOLECULAR BIOLOGY
➢ Standardisation of new PCR based protocol for the identification of blood pathogens from Bactalert blood culture bottle, Clostridium difficle from stool sample and Virus (Dengue, Zika, Chikungunya, Covid-19)
➢ DNA/RNA isolation from biological specimen using different types of extraction method.
➢ DNA and RNA quantification using spectrophotometric methods
➢ Primer reconstitution, reaction optimization, thermalcycling, and result interpretation using different PCR platforms and analysing amplification curves.
➢ Protocol standardization, troubleshooting experiment and time depended completion of experiments.
➢ Clinical sample processing, bacterial culturing and isolation.
➢ Expertise in staining methods and handling light microscopy, phase-contrast and fluorescence microscopy
➢ Antibiotic Sensitivity Test and MIC determination.
➢ Serological testing methods (e.g., ELISA, agglutination tests)
➢ Immunological assays (e.g., Western blot, immunofluorescence)
➢ Serological screening for infectious diseases (e.g., hepatitis, HIV, syphilis)
➢ Serological marker identification (e.g., antigens, antibodies)
Microbiology –
• Isolation, characterization and identification of bacteria from clinical and environmental samples.
• Efficiently completing given samples for testing in the given time period.
• Conduct Microbiology analysis and reporting to the head.
• The selection and interpretation of clinical microbiology test/ results, including antimicrobial, susceptibility, infection control and public health facilities.
• Responsible for evaluation of procedures, interpretation of results, including plate reading and diagnosing the etiological agents, antimicrobial susceptibility results were indicated and discuss with clinicians on the treatment of infected patients.
• Knowledge of Hazard Analysis Critical Control Point (HACCP)
• Knowledge of media preparation and sterilization for bacteria and fungi.
• Knowledge of handling various kinds of bacteria, fungi and viruses.
• Knowledge of good laboratory practices.
• Knowledge of the development and implementation of standard operating procedures (SOP)
MYCOLOGY AND PARASITOLOGY
• Fungus culture and fungal staining (LPCB, Indian ink), KOH Preparation
• Wet mount and Flotation Techniques
EQUIPMENTS HANDLED
Bio-Rad CFX 96 Well RT PCR Analyser, Bio-Rad T100 Thermal Cycler,Bio-Rad CHEMDOC XRS+ Image lab, Shimadzdu UV VIS Spectrophotometer UV 1900i, Zybio EXM 3000, TrueNat Extraction and amplification machine, Cepheid GeneXpert (CBNAAT), Abbot ID NOW, Eppendorf and Remi cooling Centrifuge, Bact/Alert 3D, Vitek Compact 2, Vidas Analyzer, MGIT 320, Vitros 3600 Immunoanalyzer(CLIA), Beckman Coulter AU480, Mispa i2 Techniques - NMR analysis, FTIR analysis, GCMC analysis, ELISA, qPCR, ICP-OES, gene expression based Meta-analysis and bioinformatics tools etc.

IELTS EXAMINATION

IELTS ACADEMIC

Listening- 8.5
Reading- 7.5
Writing- 7
Speaking- 6.5
Overall Band Score- 7.5
CEFR Level- C1