

Nijitha K

Senior Research Fellow

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📍 Kerala, India



Professional Experience

January 2023 – present

Trivandrum, India

Indian Institute of Space Science and Technology,

Thiruvananthapuram, Senior Research Fellow

As a Senior Research Fellow at the prestigious Indian Institute of Space Science and Technology (IIST) in Thiruvananthapuram, I have been actively engaged in a significant research project focused on understanding and investigating induced changes in kidney stone formation using the model organism *Drosophila Melanogaster*.

July 2016 – July 2018

Kochi, India

Amrita Institute Of Medical Science And Research Center (AIMS),

Cochin, Scientific Assistant /Junior Lab Technician

During my tenure as a Scientific Assistant/Junior Lab Technician at the Molecular Biology Department of Amrita Institute of Medical Science and Research Center (AIMS) in Cochin from July 2016 to July 2018, I gained extensive experience in a wide range of molecular and genetic analyses. My responsibilities encompassed diverse gene mutation analysis, including Factor V, Prothrombin, MTHFR (related to blood clotting factors), SMA, and HFE, utilizing the RFLP method. Additionally, I conducted HLA typing for organ transplantation, employing SSP (Sequence Specific Priming) and SBT (Sequence Based Typing) methods. In the context of organ transplantation, I also performed lymphocyte cross-match assays, including AUTO, ALLO, DTT, and IgM inactivation. Further expanding my expertise, I conducted cancer genetic tests such as Jak2 (V617F), BRAF (V600E), and Beta Thalassemia-5 common mutation analyses using the Sanger Sequencing Method. I also gained proficiency in DSA and PRA analysis using LUMINEX BEAD BASED METHOD and quantified CMV, HCV, and HBV using Quantitative Real-Time PCR. My technical skills included the operation of various instruments, such as the ABI Prism 310 Genetic Analyzer, Florescence PCR Instrument-Rotor Gene Q, 7500 Fast Real Time PCR System, 7300 Real Time PCR, Luminex, and Eppendorf PCR. In addition to these achievements, my technical repertoire covered a range of microbiological, molecular, and immunological techniques, making me a versatile contributor to the field of molecular biology.

Education

2012 – 2014

Bangalore, India

M sc Applied Genetics, The Oxford College Of Science

2009 – 2012

Kozhikode, India

B sc Genetics, AWH Special College

Languages

English

Malayalam

Hindi

Projects

Project on chromosome analysis on couples experiencing bad obstetric history conducted at Genetika, Center for advanced Genetic studies, Thiruvananthapuram-24

Participated in oral presentation competition in Jnanarjana 2K14,6 National Science Conference on "Beyond the frontiers in science & Technology" held on 27 and 28 of March 2014 at The Oxford College of Science.

Skills

Research and

Analysis Skills

Experimental Design
Data Collection and Analysis
Statistical Analysis
Data Interpretation

Instrumentation:

Polarized Light Microscope
ABI Prism 310 Genetic Analyzer
Real-Time PCR Systems (e.g., 7500 Fast Real Time PCR, 7300 Real Time PCR)
Luminex Technology
Fluorescence PCR Instrumentation
Eppendorf PCR Equipment

Collaboration and

Communication:

Collaborative Research
Co-authoring Research Papers
Conference Presentations
Academic Mentorship

Immunology:

ELISA (Enzyme-Linked Immunosorbent Assay)
RIA (Radioimmunoassay)
Blood Compatibility Testing (Lymphocyte Cross-Match)

Laboratory

Techniques:

Molecular Biology Techniques
Nucleic Acid Isolation
PCR (Polymerase Chain Reaction)
RT-PCR (Reverse Transcription PCR)
Gel Electrophoresis
DNA Sequencing (Sanger Sequencing)
Cell Culture and Viability Assays
Immunohistochemistry
Microbial Techniques
Blotting Techniques (Southern, Northern, Western)

Project

Management:

Project Planning and Execution
Team Coordination
Resource Management
Problem-Solving and Innovation

Genetic Analysis:

Gene Mutation Analysis (e.g., RFLP method)
HLA Typing (Sequence Specific Priming, Sequence Based Typing)
Genetic Testing (e.g., Jak2, BRAF, Beta Thalassemia)

Quality Control:

Quality Assurance and Control in Laboratory Procedures

Declaration

I hereby declare that all statements made in this application are true and complete to the best of my knowledge and belief.

Nijitha K

Trivandrum, 25/09/2023

References

Dr K G Sreejalekshmi, *Professor, Dept. of Chemistry, IIST*
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Dr. Lalitha Biswas PhD, *Head of the Department, Molecular Biology Laboratory,*
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