

Graduate Recruitment Committee
Department of Biotechnology
Kalasalingam Academy of Research and Education
Tamil Nadu
India

Dear Committee Members,

I am writing this letter to express my sincere interest for a possible **PhD position** at the Department of **Biotechnology** in Kalasalingam Academy of Research and Education. Upon selection, I wish to join your department for pursuing my doctoral studies. Kindly allow me to make a humble attempt to elaborate on my academic and research background, inclination towards science, research experience, career goals and how all these make me an ideal candidate for graduate study in your esteemed university.

Science, biological science in particular, has always been a fascination to me from my childhood. The stories in magazines about latest ground-breaking discoveries in Biology always made me intrigued in this branch science and intensified my interest in biological research as a future career path. When chemistry was added to my high-school course curriculum, I was introduced to another dimension of Biology called biochemistry. The high-school Biology laboratory soon became my favorite place in the school. In addition to the stipulated lab hours, I found myself wandering in the Biology laboratory getting hands on experience of various research instruments and their functions. This got me interested in several branches of biology especially cell & molecular Biology.

To follow this pursuit, I got a chance to start my undergraduate study in Biological sciences in West Bengal State University, a reputable arts & science university in India. This gave me a platform to fulfill my curiosity and expand my knowledge base in the field of Zoological, Botanical and Physiological sciences. Animal and plant Biotechnology became one of my favorite subjects due to the fact that even a single cell can provide us significant information by accurate implementation of various equipment. Classroom seminars were

another learning avenue for me. I always took active roles in giving seminars. I organized, managed and coordinated various inter-departmental events, which helped me develop leadership and communication skills and was always interested to participate in all the departmental activities including study tours symposia and quiz programs. I spent a significant portion of my time in cell culture laboratories in the department learning various new culture techniques and assays on a range of human cell-lines. Several relevant subjects were introduced in total three years including animal Biotechnology, human physiology, molecular Biology, genetics, recombinant DNA technology, human pathology, plant physiology.

Even though I had a strong intension to steer my career towards research, I didn't get a clear research direction in my early college period until I started my masters' degree M.Sc in the Bishop Heber College, Bharathidasan University, one of the premier Biotechnology school and research center in South India. Being the reputable institute that Bishop Heber College is with its eminent research faculties and highly equipped research laboratories, I learned various aspects of cell and molecular Biology during my M.Sc program. During this time, I have pursued multiple projects, drawing upon the knowledge and skills that I acquired through classroom teaching as well as extensive practical training.

Owing to the yearning of active research, I started my project work under prof. Albert A. Rizvanov in the Kazan Federal University, Russia, where I worked as a summer research intern during the summer of 2017. There I worked on various bacterial enzyme production and proteomics. Chromatographic purification and gene cloning in *Serratia marcescens* were performed on non-recombinant exogenous bacterial enzyme. In addition, green fluorescent protein (GFP) was expressed in *E. coli*, purified for their application in autophagy assessment. As part of my final year project, I got the opportunity to perform thesis work with Dr. Soumya Sasmal at the Netaji Subhas Institute of Technology, University of Delhi, India. Where I worked on pretreatment of Lignocellulosic biomass by using acid and alkali. The prediction of this project is carrying out Artificial Neural Network (ANN) method by using MATLAB. I am confident that all these research trainings would be great addendum to my interdisciplinary research experience and help my career path in active Biological research.

To further advance my career, I wish to pursue PhD in **Tissue Engineering**. As I offer myself as a PhD candidate in your department, I bring to the table years of work experience which includes steady and continuous advancement, an unrelenting pursuit for knowledge, and a belief that anything is possible if we can actively imagine it into existence. I am intrigued by the research works of the eminent faculty members in the department especially that of **Prof. A.Muthukumaran**, who has done tremendous works in the field of Biotechnology. The research article of **Prof. Muthukumaran** in the field of Zebra Fish model for human diseases is fascinating. I will consider myself extremely fortunate if I get selected to pursue my graduate research work under their guidance.

To this end, I find the research environment in your department to be exhilarating. The eminent faculty members, the dynamic and diverse research environment, extensive collaborations that you have with researchers across the country provide for an ideal platform for cutting edge research. I believe that working in this environment would enrich me immensely as a researcher. I look forward to the invaluable experience of doctoral research which will help me grow professionally as well as individually. I am confident that if I am selected as PhD Student in the Kalasalingam Academy of Research and Education (KARE), School of Biotechnology, I will make you proud of your selection in near future.

I look forward to hearing from you.

Sincerely,

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