

Motivation Letter

I introduce myself as a graduate from Lund University, Sweden with specialization in Molecular biology. The purpose of this letter is to supply basic information about my education also my academic interests and future plans, since I would like to apply for PhD Student position in your lab.

I did all my schooling in English as my medium in India. Then started the University studies with Bachelor of Science with Microbiology as major subject at Kakatiya University, India which gave me foundation about how to view different fields of life sciences. Then I continued with Masters in Microbiology at Kakatiya University, Warangal where I had real good opportunity to experience the advanced studies in the field of Microbiology, immunology, biochemistry including various industrial visits.

In autumn 2009, I came to Lund University, Sweden to pursue Masters in Molecular Biology with aim of getting deeper knowledge in both theoretical and practical aspects. I got excellent education at this premier university covering wide variety of subjects including Molecular Biotechnology, Immunology, Microbiology, Methods in Molecular Biology, Clinical Microbiology and Clinical Immunology, Microscopy and Bio Imaging and Plant Biology. My studies in Lund as a master student and working on different projects have given me a large set of practical skills.

I am very much fascinated to the field of Medical Biology which strived me to do my master thesis project at department of laboratory Medicine Skane, Department of Clinical Microbiology, Section of Bacteriology, Lund University on "Developing an Optimal synbiotic mix using multiple probiotics and prebiotics". In this project I screened different lactobacillus and bifidobacteria for their probiotic applications, their ability to metabolize prebiotics and *In vitro* starch metabolism of bifidobacteria. In this project I had developed a synbiotic mix *in vitro* against clostridium difficile. From this project I got hands on experience of various microbiological techniques, protein purification, western blotting, and qPCR. I also assisted my co-supervisor for their *in vivo* studies against enteric pathogens which helped me to learn how to handle mice models. I developed my interest in the field of Medical Biology to promote its widespread applications extensively for the service of mankind.

I have read ongoing work in your lab on "increase in proinflammatory microbiota of gastro intestinal tract in humans and vagina in women's leads to gastrointestinal disorders in humans and abnormal microbiota inheritance to neonates can be corrected by using probiotics". After reading the project description and some of the recent articles from your lab on gut microbiota related inflammatory diseases and the possible correction of this by using probiotics, I realized the clinical importance of this project can contribute greatly to treat abnormal microbiota related diseases.

Your past research has shed light, greatly enhanced the knowledge about abnormal microbiota in the gut and associated diseases. From your work it is also evident that immune system is influenced by the flora of mucosa and is highly influenced by modern lifestyle leading to abnormal increase in the levels of pro-inflammatory microbiota that causes to local