

## LETTER OF MOTIVATION

My name is Navajyoth, and I am writing to express my genuine excitement about applying for the Master's program in Molecular Biology at the University of Vienna. I have completed my B.Sc. in Biochemistry with a specialization in Nanotechnology, and I am eager to further my education and contribute to the field of molecular biology through your esteemed program. During my undergraduate studies, I developed a solid foundation in biochemistry and nanotechnology, which has equipped me with a unique interdisciplinary perspective. To enhance my practical skills, I completed a brief but intensive internship at VJ Biotech from January 5th to January 25th, 2021. This internship offered me valuable exposure to the biotechnology industry and further solidified my interest in pursuing advanced studies in molecular biology. In pursuing a well-rounded education, I also undertook a value-added course in Food and Nutrition at CBNR from 2018 to 2019. This course broadened my understanding of the vital role nutrition plays in health and disease, complementing my biochemistry background and providing me with a more holistic view of biological sciences.

I commenced my academic journey by acquiring a Bachelor's degree in Bio-Chemistry with Nanotechnology, which sparked a profound fascination with the microscopic realm of microorganisms. This enthusiasm propelled me to pursue an MSc in Biomedical Science at Nottingham Trent University in the United Kingdom. Regrettably, my academic pursuits were disrupted due to an unforeseen health issue - a diagnosis of an accessory navicular bone condition that necessitated surgery. Following the procedure at New Medical College in Thrissur, I encountered complications in the form of pus discharge, which called for a second surgical intervention. These health challenges compelled me to return to my home country and temporarily halt my studies. Nevertheless, despite these obstacles, my determination to forge a career in microbiology and immunobiology has only intensified. During this period of treatments and recuperation, I have utilized the opportunity to deepen my understanding in these fields through self-directed study, an internship at VJ Biotech, and employment as a laboratory assistant from May 3, 2021, to April 4, 2022. This experience has further fortified my resilience and perseverance, qualities that I firmly believe are indispensable for a successful career in scientific research.

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Since 2023, I have been working as a Laboratory Assistant, where I have applied my theoretical knowledge to practical scenarios, enhancing my problem-solving skills and gaining valuable experience in a professional laboratory setting. My responsibilities have included conducting experiments, maintaining laboratory equipment, and ensuring adherence to safety protocols. I have also gained experience with a variety of modern laboratory equipment, such as the Randox Imola Fully Automated Analyzer, Semi-Automated Analyzer, and Automated Hematology Analyzer. This role has reinforced my passion for laboratory work and my desire to contribute to scientific discoveries.

Molecular biology and biochemistry are inherently interconnected fields. The advanced understanding of molecular biology can enhance and complement the foundational knowledge gained in biochemistry and nanotechnology. Molecular biology delves deeper into the mechanisms of how biological molecules interact and function, which is crucial for advancing in any bioscience-related field. The field of biotechnology is rapidly evolving, and molecular biology is at its core. With the specialized knowledge of nanotechnology, a deeper understanding of molecular biology can enable the development of innovative biotechnological applications, such as targeted drug delivery systems, nano-biosensors, and gene editing technologies. A Master's in Molecular Biology opens doors to cutting-edge research opportunities in genetic engineering, genomics, proteomics, and synthetic biology. This advanced knowledge is essential for contributing to groundbreaking research and developing novel solutions to complex biological problems.

The Master's program in Molecular Biology at the University of Vienna is seemingly to me as the The Molecular Biology program seeks to equip students with a complete understanding of the topic, preparing them to compete on a worldwide level. Students who complete this program will be able to evaluate and comprehend chemical reactions within cells both at the molecular level and in a broader perspective. This will enable them to expand their knowledge of molecular biology techniques and individually solve complicated molecular and biological concerns utilizing cutting-edge technology. Students can choose to specialize in Biochemistry, Molecular Structural Biology, or Molecular Cell Biology based on their interests, all of which are important aspects of molecular biology. Students in

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the Master's program build on a solid foundation in molecular and quantitative biology. The University of Vienna is the oldest in the German-speaking world and one of the largest in Central Europe. It provides a diverse range of educational possibilities, including 178 degree programs and 40 university continuing education and training programs. With almost 45,000 current students, it is Austria's largest and most diversified educational institution. The university has a faculty of around 7,000 academics, making it the nation's largest teaching and research institution. Its mission is to offer a wide range of studies while fostering new and innovative fields of research and establishing new networks between subjects. Various centers, including the Center for Translation Studies, the Center for Sport Science and University Sports, the Center for Molecular Biology, the Center for Microbiology and Environmental Systems Science, and the Center for Teacher Education, are housed at the university. Ranked #130 in the QS World University Rankings 2024, the University of Vienna is one of the top public universities in Vienna, Austria.

After completing my Master's program in Molecular Biology at the University of Vienna, alongside a B.Sc. in Biochemistry with a specialization in Nanotechnology and experience as a laboratory assistant, I have identified numerous career opportunities in India. One promising path is to pursue a prestigious PhD program at Indian institutions such as the IITs, IISc, or JNU. This would enable me to secure roles such as research associate or faculty positions at universities and colleges. Given my international background, I am well-positioned for academic roles such as Assistant Professor, Associate Professor, and eventually Professor. Moreover, there are opportunities in laboratories specializing in molecular diagnostics, genetic testing, and personalized medicine. Another exciting avenue is collaborating with agricultural research institutes like the Indian Agricultural Research Institute (IARI) on projects related to genetically modified crops, bio-fertilizers, and pest-resistant plants. Utilizing my MSc in Molecular Biology from Austria, I aim to significantly enhance my career prospects and contribute to the advancement of the biotechnology and life sciences sectors in India.

Thank You

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Eruvilamkadu Prabhannan Navajyoth