

## Letter of Motivation

Applicant Name: Rithika Akilan

Program: Molecular Biology (Master)

By going beyond the surface details, reasoning through what seems unattainable, and striving for a more profound comprehension, we're able to make genuine deductions. I've always found pleasure in tackling theories that seem out of reach; I think it enables me to achieve more than usual. The field of biological research covers everything related to how the human body operates and how outside elements affect it. My strong desire to gather comprehensive information on these topics motivates me to pursue further education at a globally acknowledged institution. I'm applying to this Master's program to enhance my understanding and delve into research opportunities within Molecular Biology.

I am writing to express my interest in the Master's program in Molecular Biology at the University of Vienna. With my background in biochemistry and laboratory assistant experience, I welcome the opportunity to continue my education and contribute to molecular biology studies at the university. When I graduated with a biochemistry degree, I better understood the complex biochemical processes behind life. To improve my knowledge with practical skills, I attended a one-month molecular biology and rDNA technology program at Unibiosys Biotechnology Research Laboratory in 2021—methods such as DNA extraction, PCR, gene cloning, and electrophoresis. The internship gave me a solid foundation in molecular techniques and their applications in genetic research and biotechnology. Come and try to improve my skills and join the coding class at Cigma Medical Coding Institute, Ernakulam in 2022-2023.

My background in biochemistry and expertise in medical coding allow me to bridge the gap between research and healthcare management. Since 2023, I've been employed as a lab assistant, utilizing my academic learnings in real-world scenarios, which has honed my problem-solving skills and enriched my knowledge in a lab setting. My duties cover everything from conducting experiments to keeping lab equipment in good condition and adhering to safety guidelines. This role has fueled my enthusiasm for lab work and propelled me to aim for significant contributions

to scientific research. With this project, students will acquire the skills necessary to comprehend and scrutinize chemical reactions within cells at a molecular level. This deepens their grasp of molecular biology mechanisms, preparing them for tackling complex molecular and biomedical challenges with the latest, advanced technologies. Depending on their preferences, students might focus on biochemistry, molecular structural biology, or molecular cell biology, all of which are crucial in the domain of molecular biology. This choice is driven by the institution's dedication to innovative research and its outstanding academic standards. The University of Vienna's Master's degree in Molecular Biology interests me since it promises to provide students with a full understanding of the subject and prepare them to compete anywhere in the globe. 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. The University of Vienna is the most seasoned within the German-speaking world and one of the biggest in Central Europe. With 178 degree programs proceeding instruction and preparing programs, and around 45,000 dynamic students, it is Austria's biggest and most assorted instructive institution. The University has a staff of around 7,000 scholastics, setting its position as the biggest teaching and inquiry-about institution in the nation. Its mission is to offer a wide extent of ponders cultivating modern and imaginative areas of inquiry about and setting up modern systems 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. Positioned #130 within the QS World University Rankings 2024, the University of Vienna is one of the best open universities in Vienna, Austria.

I aspire to join a research institute or university in India as a research scientist or professor. I plan to apply the knowledge and skills I acquired during my master's program to undertake research projects focused on health and environmental issues, aiming to make a positive impact. With the rapid growth of the biotech industry in India, I am eager to contribute to this progress by working with or establishing biotech startups. My objective is to develop innovative products and solutions that address local challenges in medicine, agriculture, and environmental sustainability using molecular biology techniques.

Thank you for considering my application. I look forward to the possibility of contributing to and growing within the Master's program in Molecular Biology at the University of Vienna.

Sincerely,

Rithika Akilan

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