

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 Paris Lodron University of Salzburg. 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 allows 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.

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.

Paris Lodron University of Salzburg also referred to as the University of Salzburg (Universität Salzburg) stands as an institution, in the charming city of Salzburg, Austria. Established back in 1622 by Prince Archbishop Paris Lodron this university honors its namesake who played a role in its founding and growth. Following a period of closure during governance in 1810 it was revived in 1962. Has since flourished. The university offers an array of graduate and doctoral programs that are highly regarded for their academic quality and research achievements across various fields such as humanities, natural sciences, law, social sciences, and theology. Known for its research initiatives and partnerships with organizations the university boasts modern amenities like well-equipped libraries research facilities and labs. Nestled in the city of Salzburg renowned, for its cultural heritage and stunning landscapes. Paris Lodron University of Salzburg, also known as the University of Salzburg (Universität Salzburg), is a prominent university in Salzburg, Austria. Founded in 1622 by Prince-Archbishop Paris Lodron. Named after its founder, who played a significant role in its

establishment and development. The university was closed in 1810 during the Bavarian rule and reopened in 1962. Offers a wide range of undergraduate, graduate, and doctoral programs. Renowned for its research output and academic excellence. Provides programs in various disciplines, including humanities, social sciences, natural sciences, law, and theology. Known for its strong research programs and collaborations with international institutions. Houses modern facilities, including well-equipped libraries, research centers, and laboratories. Situated in the historic and picturesque city of Salzburg, known for its cultural heritage and beautiful landscapes. The main campus is centrally located, providing easy access to the city's amenities and attractions. The university has a vibrant cultural scene, influenced by Salzburg's rich musical and artistic traditions. Offers various cultural and recreational activities for students, including concerts, lectures, and exhibitions.

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