

# **STATEMENT OF PURPOSE**

My name is **Seanna Crystal Monteiro**, and I am looking forward to applying for a **Master's degree program in Molecular and Cellular Biosciences at the University of Halle-Wittenberg**. I graduated recently and I have a **Bachelor of Science in Biology from Bengaluru City University; my CGPA is 9.54**. Having a background in genetics, microbiology, and bioinformatics along with the necessary work experience and technical competencies, I am sure that this program would be very beneficial to me.

The courses offered included genetic engineering, computer science, and information technology; through a clinical background preparation, I got equipped with knowledge of molecular and cellular systems. Further, I got a grade 7.5 in the IELTS examination which will be useful in my study in Germany, and also show my adequate knowledge of this language.

At present, I am serving as a **research assistant in the Cardiovascular and Muscle Research Lab at the Indian Institute of Science (IISc)**. My duties include developing and conducting experiments in the area of microbiology and cell biology department. It is the best way to sharpen the technical skills of different biological procedures such as **PCR, gel electrophoresis, and cell culture**. I am also conversant with bioimaging programs including ZEN, LASX, Imaris, and ImageJ which are essential for data analysis.

I took training on **Cancer Biology that was held by Edufabrica in collaboration with IIT Kanpur in 2022**. This program increased my understanding of the mechanisms of cancer and the current state of affairs in research, the need for molecular biology in practice. These have been some useful experiences, which makes me eager to continue growing this skill set in the Molecular and Cellular Biosciences program.

**Germany** has a competitive scientific environment and is one of the leading countries in research and development. So, pursuing advanced education in molecular and cellular biosciences in Germany will be an excellent opportunity. Higher education institutions in the country seek for the production of quality education standards and are equipped with modern research amenities that afford a great scope for academic progress. Moreover, working in Germany will offer me the opportunity to be taught in an environment that stresses professionalism, practice and research in training.

**University of Halle-Wittenberg, Molecular and Cellular Biosciences** program provides a strong core course that will enable the student to master certain important aspects of molecular genetics, cell signaling, and bioinformatics. These subjects are central to encapsulating the intricacies of cell processes and their practical uses in biotechnology and medical fields. The focus of the program on laboratory experience in the next year and on thesis projects in the final year is rather engaging to me as I will be able to practice and engage into research work.

By pursuing this program, I am confident that I will gain more extensive knowledge in molecular and cellular biology and enhance the technical aspects that are relevant to the application of modern techniques in this field. Theoretical and practical academic curriculum and research will continue my discovery of cutting-edge scientific achievements. Also, the development of critical thinking and problem-solving skills that are the essence of the program will further improve my analytical skills in the context of my future job in the field of scientific research and development. I am also eager to join the faculty and students so that I may be able to develop good interpersonal relationships with other students and faculty members.

The module pillar includes a wide array of modules that are tailored to cover various important areas of **Molecular and Cellular Biosciences**. Knowledge in genetics can benefit from Molecular Genetics which covers the regulation and genetic manipulation and Cell Signaling which will help in understanding the communication of cells and the formation of diseases. The specific modules in bioinformatics will enable me to gain the necessary skills in data analysis and information retrieving for huge **biomolecular** datasets. The ability to build up my understanding of the theoretical concepts and link them with actual practical applications made within these modules will help me face certain difficulties in **molecular biology and biotechnology**.

I believe that my prior education as well as work experience has prepared me for my application to this program. I acquired knowledge and skills matching the molecular biology and genetics courses that are offered at the **University of Halle-Wittenberg** which make me qualified for their coursework and research projects. I obtained pleasant and profound realistic experience while working as a research assistant and I am desirous to expand my knowledge of laboratory procedures and data analysis through my higher education. This program will help me narrow down the gap between the existing knowledge and desirable skills.

Based on the program completion, I will be able to work with biotechnology and pharmaceutical companies like **Bayer, Roche, Novartis and so on as Research Scientist or Molecular Biologist**. As a final ambition, I wish to create new drugs and biotechnological technologies that would help solve serious health problems. These goals and objectives will be fulfilled by this academic program due to the knowledge, skills, and professional connections that will be acquired to have a positive impact in molecular and cellular biosciences.

Thus, I am sure that the continuation of my education in the **MCB program of the University of Halle-Wittenberg** is appropriate for me to further my academic and career path. Having all-rounded curriculum, the opportunity to engage in research, and a cooperative work environment I will certainly be able to accomplish my objectives and respond to the development of science. This is the reason why I am truly looking forward in taking this great chance to have the opportunity to study in your prestigious school.

Thank you

Sincerely

**Seanna Crystal Monteiro**