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|  | Bhawna   |  |  | | --- | --- | | **Adresse Johann-Griesbach-Str. 07, Jena, Germany**  bbhawna711@gmail.com  +49 17616817968 |  | |

January 2023,

IDEXX,

Kornwestheim.

Dear Hiring Manager,

**Subject:**

With a strong academic background in Molecular Life Sciences and hands-on experience in molecular biology techniques, I believe I am well-suited for the challenges and opportunities presented by your organization.

In my current role as a master thesis student, I am actively participating in a project focusing on the characterization of the SRS\_13901 effector protein of the biotrophic smut fungus Sporisorium reilianum f.sp. reilianum. This virulence gene, previously validated through knockout studies resulting in reduced virulence in sorghum plants, served as a focal point for my investigations. To delve deeper into its functionality, I created complementation strains with the coding sequence, integrating distinct tag versions (m\_Cherry for microscopy and HA tag for coimmunoprecipitation). The other objective involved employing yeast two-hybrid techniques to elucidate the interaction partners of the SRS\_13901 protein. By combining genetic manipulation, molecular biology, and advanced microscopy, my research aimed to contribute novel insights into the role of SRS\_13901 in the pathogenicity of Sporisorium reilianum f.sp. reilianum.

This research has honed my skills in molecular biology techniques, including DNA, RNA, and protein extractions, DNA, and plasmid isolation, cloning techniques (Gibson assembly, Restriction enzyme-based, PCR cloning), SDS-PAGE, PCR (RT-qPCR, qPCR), agarose gel electrophoresis, Vector preparation, Southern and Western Blots, Transformation, enzyme-based assays, yeast two-hybrid system, plant infection and sequencing data analysis.

My bachelor’s degree in Zoology Honors from Delhi University equipped me with a diverse set of skills in genetics, immunology, cell and developmental biology, proteins and enzymes, physiology, molecular biology, and biochemistry. I am interested in joining IDEXX, as it aligns with my passion for animals and complements my academic background in zoology. As a dedicated zoology student, my commitment to understanding animal well-being has increased my desire to contribute to advancements in veterinary care.

Apart from my academic and research achievements, I bring to the table strong communication and collaboration skills, project management abilities, and a keen eye for organization. My proficiency in laboratory safety protocols, data analysis, documentation, and reporting further demonstrates my commitment to quality research. I am fluent in English and possess a basic understanding of the German language.

Enclosed is my resume, which provides further details about my academic and professional background. I am excited about the opportunity to contribute my skills and knowledge to your company and am confident in my ability to make meaningful contributions to your team.

Thank you for considering my application. I look forward to the opportunity to discuss how my experiences align with the needs of your organization.

Sincerely,

Bhawna.