



Dear Horizon Ag representative,

Given my strong scientific background and deep interest in the generation of biofuels, I would make an excellent Fermentation Research Scientist and relish the opportunity to help advance low carbon, low environmental footprint fuels, chemicals and feedstock. After a B.Sc. in Biology and participation in the iGEM (international Genetically Engineered Machine) competition, I received a M.Sc. in Biology before working with the European Molecular Biology Laboratory (EMBL) in Rome. Across various research projects I have worked both independently and as part of a team, gaining strong problem-solving skills, precise attention to detail and excellent communication and interpersonal skills. Furthermore, I have a proven ability to quickly adapt to new challenges, apply new techniques, provide quality controlled data and am able to use, maintain and troubleshoot laboratory equipment.



During my B.Sc. thesis I worked with *Nannochloropsis oceanica* and *Phaeodactylum tricornutum* while my M.Sc. thesis I cultivated *Synechocystis* sp. PCC 6803 ([Publication](#)). Through these experiences I developed excellent analytical and critical thinking skills and became well-versed in gathering, analyzing, recording and quality checking scientific data with precise attention to detail using techniques like micropipetting, cell counting by hemocytometer, serial dilutions, streak plates, light microscopy, gram staining, accurate volumetric and gravimetric measurements or filtration sterilization. The wide array of lectures I took in microbiology and translational biology has meanwhile left me with a solid foundation to design and execute experiments based on available literature, and analyze and interpret the obtained data. More generally, I have consistently shown I can quickly learn new procedures and protocols. For instance, during a reorganization of my current lab, I consulted a variety of available protocols and methods to establish SOPs and the necessary quality control for the production and quantification of viral vector tools in mammalian cell culture. In this process I identified areas of improvement by monitoring the quality of generated data, constantly provided feedback and recommendations for improvement to my supervisor and implemented resulting changes. During this time I improved my aseptic technique, became more familiar with using laminar flow hoods and began working in a BSL2 environment, making me aware of the importance of stringently following safety guidelines to maintain a clean, safe and efficient working environment.

During iGEM I worked within an interdisciplinary team of 20 students preparing me to collaborate with Gevo's Analytical Chemists and to flourish in team environments while accomplishing common goals together. This experience has left me ready to accurately record, prepare and communicate findings or suggestions concisely, comprehensively and professionally within the team and across departments. iGEM also provided an opportunity to hone my skills in the daily upkeep of a lab, including ensuring the availability of supply stocks and the functionality of laboratory equipment as well as preparation of media and using autoclaves to clean and sterilize glassware or other equipment. At my current position, I took the initiative to increase my proficiency in Microsoft Office products, particularly Excel for data analysis and taught myself how to use and improve the facility's database (FileMaker) to precisely maintain electronic documentation alongside the lab notebook. I also attended a professional course on presenting with impact and project management for scientists and am able to apply these techniques to balance multiple projects at once while managing my time to keep ahead of deadlines. Finally, I am used to flexible work hours and am willing to travel as required.



Working for Gevo, Inc. as a Fermentation Research Scientist is a natural continuation of my experience,

skills and passions and I believe I could make valuable contributions to lead the change to low carbon fuels and chemicals. If you agree, I would appreciate the opportunity to discuss the position and my skills in more detail. Thank you for your consideration, I look forward to hearing from you and will be following up next week.

Sincerely,

**Rabea Jesser**