

## **Postdoctoral Research Associate – Protein Engineering and Genome Editing**

**Location:** Texas Tech University (TTU), Lubbock, TX

**Position Type:** Full-Time, Postdoctoral Associate

**Project Funding:** Industry-sponsored

### **Position Summary**

We seek a highly motivated and skilled Postdoctoral Research Associate to join a multidisciplinary team focused on advanced protein engineering and genome editing. This position is part of an industry-funded project to develop next-generation enzymes and microbial strains for crop improvement.

The successful candidate will have a strong and demonstrated background in enzyme modeling, metabolic engineering, and genome editing tools like CRISPR/Cas systems. This is an exciting opportunity to contribute to cutting-edge research at the intersection of synthetic biology, computational biology, and industrial biotechnology.

### **Key Responsibilities:**

- Design and engineer proteins with improved or novel functionalities using rational and computational approaches.
- Perform in silico enzyme modeling and structure-guided mutagenesis.
- Apply metabolic engineering strategies to optimize microbial production pathways.
- Utilize genome editing tools (e.g., CRISPR/Cas9, base editors) for strain development and pathway modification.
- Collaborate closely with computational biologists, molecular biologists, and industrial partners.
- Analyze data, prepare reports, and contribute to publications and patents.
- Present findings at internal meetings and external conferences.

### **Required Qualifications:**

- Ph.D. in Synthetic Biology, Biochemistry, Biotechnology, Chemical Engineering, or a related field.
- Hands-on experience in protein engineering and enzyme modeling (e.g., Rosetta, AlphaFold, PyMOL).
- Proven expertise in metabolic engineering of microbial hosts (e.g., E. coli, yeast).
- Proficient in genome editing techniques and molecular cloning.
- Strong analytical and problem-solving skills.
- Excellent written and oral communication skills.

### **Preferred Qualifications:**

- Experience with high-throughput screening techniques.

- Familiarity with systems biology tools and omics data interpretation.
- Prior involvement in industry-academic collaborative projects.

**Appointment Details:**

- The initial appointment is for one year, renewable based on performance and project continuation.
- Competitive salary and benefits, commensurate with experience.
- Opportunities for professional development and industry interaction.

**Application Instructions:**

Please submit the following:

1. A cover letter detailing your research experience and fit for the position.
2. CV including a list of publications, and past and current positions.
3. Contact information for three professional references.

Applications will be reviewed on a rolling basis until the position is filled.

**Applicants who meet all the required qualifications should visit the Texas Tech University job application site at <http://www.depts.ttu.edu/hr/workattexastech/> and search for Requisition ID 41436BR.**

For further inquiries or questions related to posting, please contact  
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