

## **POSITION ANNOUNCEMENT**

### **Principal Scientist - Strain Development**

#### **Company Background**

TetraVitae Bioscience is developing biobased chemicals, plastics, and fuels from biobutanol, which is produced from biomass substrates by microbial fermentation. TetraVitae's proprietary technology and expertise in the fields of industrial fermentations, process engineering, microbiology, and cellulosic feedstocks will dramatically lower the costs of biobutanol compared to the petrochemical-derived product. Our biobutanol technology has demonstrated significant improvements over conventional approaches in key performance metrics.

#### **Job Description**

TetraVitae is looking for a highly motivated, expert microbial geneticist with a broad background that includes bacterial genetics, microbial physiology and functional genomics, to play a key role in the company's in-house microbial strain improvement program. The successful candidate will execute an integrated strategy of microbial strain development that will utilize a combination of systems-biology, genetic engineering, and traditional mutagenesis approaches to generate strains having improved performance and robustness in the production process, and that will generate new knowledge about the biology of the producing organism.

Reporting to the VP of Bioscience, the candidate will assume leadership in the laboratory to build and improve the core technologies of strain development for the company, and to train and mentor other technical staff. The position will initially entail a combination of lab-bench, project planning, and bioinformatics activities, with the emphasis on lab bench. As the company develops, and for the right candidate the position is expected to evolve more into data analysis and technical management. From the beginning the candidate will be expected to contribute importantly to the strategic direction and tactical planning of the company's strain development program. Experience with the culturing of obligately anaerobic bacteria would be advantageous for this position.

#### **Key Responsibilities**

- Establish a core platform of improved genetic systems and methods for the molecular engineering of superior strains of solvent-producing bacteria.
- Participate in the strategic and tactical planning of the strain development program of the company
- Develop bacterial strains having improved characteristics for fermentative production of solvents, using genetic engineering approaches and traditional mutagenesis and selection/screening
- Apply systems-biology approaches to generate new knowledge of the physiology and regulation of solvent formation in the production process, and to generate leads for strain- and process-development.
- Lead the company's strain development program at the bench, and train and supervise other personnel in furtherance of the company's strain development program

**Position Requirements**

- Ph.D. degree in microbiology, genetics, molecular biology, biotechnology, biochemistry or similar field with 5+ years of relevant post-doctoral experience
- Experience in the use of functional genomics data and systems biology methods to solve problems of microbial metabolism and gene regulation, preferably leading to development of improved bacterial strains for overproduction of a microbial metabolite
- A good understanding of the general and molecular genetics, physiology and regulatory mechanisms of prokaryotes.
- Ability to independently translate strain development goals into effective technical plans to achieve the goals. Ability to acquire new knowledge and new skills with minimal or no direction
- Willingness and ability to play the lead role at the bench in the company's strain development program
- Excellent written and verbal communication skills
- Strong analytical and organizational skills
- Proficiency with Microsoft Office applications, and with domain-specific software such as for sequence analysis and manipulation, microarray visualization and analysis, etc., and with the use of functional genomics and other biological databases
- Legal standing to work permanently in the USA

**Position Preferences**

- A track record of success in the genetic engineering of gram-positive low-%GC bacteria, or in devising novel genetic systems for bacteria that would otherwise be genetically intractable
- Experience in the use of anoxic techniques, including the culturing of obligate anaerobes
- Five or more years of relevant industrial experience
- Experience in the generation of novel microbial traits by the traditional approach of mutagenesis and selection or screening

**Compensation**

Commensurate with experience and qualifications. TetraVitae offers salary and related compensation that is competitive within its industry and that includes paid holidays, health insurance, life and disability insurance and 401K savings plan.

**Relocation assistance**

Company will assist the successful candidate with relocation expenses

**Type of Position & Location**

Full time/ Permanent, Champaign, Illinois

**Start Date**

February 2009 or when position is filled

**To Apply for this job**

Please send your resume, cover letter, and the contact information of three references to Dr. Steve Stoddard, VP of Biosciences, TetraVitae Bioscience, 60 Hazelwood Drive, Champaign, IL, 61820, or by Email to [sstoddard@tetravitae.com](mailto:sstoddard@tetravitae.com).