

## Trait Discovery/Bioinformatics Lead

### Hiring organization

Calyxt

### Date posted

May 12, 2020

### Description

Calyxt is seeking a highly motivated and result-oriented scientific leader to join our R&D organization. The individual will be responsible for developing and implementing bioinformatics approaches to enable innovative gene discovery and characterization of gene edits. The role will inform advancement decisions of Calyxt products from discovery through product development phases. The successful candidate will work in a team environment and interact with experts in molecular biology, gene editing, plant transformation, breeding, and regulatory affairs. S/he will also have a unique opportunity to work with cross-functional teams as Calyxt gene edited products progress through the R&D pipeline, comply with regulatory requirements and are brought to commercialization.

### Responsibilities

- Build-out trait discovery approaches and toolsets as well as broader bioinformatics tools to support the gene editing & breeding platforms and regulatory studies.
- Work as a player/coach member of the Trait Discovery team to help build the team and provide scientific leadership to define approaches.
- Collaborate closely cross-functionally with scientists and plant breeders to design experiments and continuously improve bioinformatics/data analysis approaches to facilitate trait discovery, select edited events, and support molecular breeding efforts.
- Build-out systems to analyze genomic sequences from a variety of different sources.
- Develop workflows to process genomic data, develop and maintain internal genome databases, genome browsers, and search tools.
- Interface with LIMS Architect/Administrator(s) to facilitate integration of bioinformatics tools to the LIMS (e.g. sequence processing tools as well as genomic and phenomic databases and analytic tools).
- Manage internal and external projects according to Calyxt's needs.
- Prepare data packages, reports and presentations to communicate with stakeholders at various levels.
- Develop standard operating procedures (SOPs) to characterize Calyxt edited lines.
- Provide training and troubleshooting for use of bioinformatics tools.
- Support regulatory studies as required.
- Other duties as required.

### Qualifications

- PhD or MS plus 3 years of industry experience in Bioinformatics, Computational Biology, Genomics or other related fields.
- Demonstrated experience in developing bioinformatics tools/pipelines and data analysis strategies is required.
- Experience analyzing large genomic datasets and/or other 'omics' datasets is required.
- Demonstrated experience in forward genetics approaches for trait discovery is required (e.g. genetic mapping, QTL analysis, GWAS).
- Demonstrated experience with genome assembly and annotation is preferred; experience with polyploid genomes and/or phased assemblies is a plus.
- Ability to design and analyze transcriptomic experiments.
- Experience working with sequence analysis software (e.g. Geneious, VectorNTI) and genome browsers (e.g. IGV, JBrowse) is required.

- Experience working in the cloud environment (AWS, Azure) is preferred.
- Familiarity with several languages (e.g. python, perl, R) and working knowledge of relational databases and SQL practice is preferred.
- Experience in one or more areas of advanced analytics preferred (e.g. advanced statistical analysis & modeling, machine learning, or artificial intelligence).
- Solid organizational and time management skills to ensure successful and timely documentation and completion of projects.
- Excellent verbal and written communication skills and the ability to work in a team environment to achieve project goals.

**Contacts**

Please send resume and motivation letter to [clxtdbl202005@calyxt.com](mailto:clxtdbl202005@calyxt.com)