

Council on Dairy Cattle Breeding

Genomic Data Manager Position Description

Job Title: Genomic Data Manager

Reports To: Council on Dairy Cattle Breeding Technical Director

Prepared Date: February 8, 2018

Summary

This position serves as the Genomic Data Manager of the Council on Dairy Cattle Breeding (CDCB) organization. The CDCB is a 501 (c) (5) non-profit organization which recently assumed the service responsibilities for calculating and distributing the genetic evaluations and genomic predictions, for managing data storage, and for analyzing and distributing dairy cattle data, tasks that previously were performed by the United States Department of Agriculture – Agricultural Research Service – Animal Genomics and Improvement Laboratory (USDA-ARS-AGIL). The CDCB allied partners cooperator database is the largest in the world devoted to dairy animals with over 2 million genotypes, 70 million female phenotypic records and over 500,000 males receiving genetic evaluations or genomic predictions.

The Genomic Data Manager is to lead the efforts to maintain and improve the functionalities of the CDCB genomic processing system. The Genomic Data Manager will: interact with the CDCB genomic data analyst on a daily basis to provide high level customer support, providing services to member sectors and allied industry cooperators; validate new SNP chips and new types of genomic data, manage genomic data ingestion, maintain the SNP database, and identify most performant SNPs for genotype QC and genomic evaluations; collaborate with internal and external individuals and organizations of the CDCB, particularly with genotyping laboratories to ensure successful data quality.

Essential Duties and Responsibilities

Ensuring functionality and leading new developments on the CDCB genomic data processing system, ultimately contributing to provide state-of-the-art genomic evaluations to the U.S. dairy industry.

Data quality:

- Develop and operate the processes of genomic data flow and editing.
- Ensure the proper protocols for data acquisition, safety and usage are adopted in the CDCB database.
- Collaborate with the CDCB Technical Director in developing and maintaining interfaces for data exchange between the CDCB and collaborating organizations.
- Maintain a framework for data editing and validation focused on the genomic evaluation needs, providing feedback to data suppliers with an emphasis on continuous data quality improvement.
- Monitor pedigree and genomic data submitted on a daily basis.

Operations:

- Assist AGIL and CDCB staff in identifying and providing solutions to criticalities in processing ancestry and genotype data.
- Cooperate with other national and international research organizations on projects in which the CDCB is involved.
- Collaborate with the CDCB approved Genotyping Laboratories to validate new SNP chips.
- Supervise generation and timely distribution of CDCB reports and output files to CDCB service users.

Service documentation:

- Develop standard operating procedures for internal and external genomic data management.
- Create customer-driven documentation of existing and new services and functionalities.
- Interact with CDCB Genotyping Labs and Genomic Nominators to evaluate the quality of the documentation provided.

Communication:

- Oversee the CDCB Laboratory and Nominator customer services (documentation and ticketing system).
- Participate as a speaker on extension and scientific events to present CDCB results and promote CDCB services.

Qualifications

The individual in this position must be able to perform the essential duties satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

Education and/or Experience:

- Masters or PhD degree in agriculture, bioinformatics or biotechnology is required.
- Experience in big data analysis and management, specifically for SNP chip-based genomic data is mandatory.
- A service oriented attitude with good communications skills is required.
- Knowledge of basic UNIX/LINUX operating system is required.
- Knowledge of programming languages and data analysis tools (especially SAS and/or python) is desirable.
- Knowledge of genomics (genomic selection) is mandatory.

Salary and Benefits

Salary is commensurate with experience and includes a competitive benefit package.

Travel

Some domestic and international travel will be required for meetings and events. A valid passport or appropriate work permits for entry into the USA and other countries is required. Travel arrangements as appropriate for transport to and from work and outside sites will be expected as normal work effort.

Language Skills

Must have a good command of English with competency in oral and written communication.

Physical Demands

Should be able to lift and carry 50 pounds. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Work Environment

The CDCB organization under the direction of the CEO operates in a strong team environment, with interaction between internal and external individuals and organizations. Business casual dress with appropriate business dress for meetings and travel is required.

Location

The Council on Dairy Cattle Breeding office is located in Bowie, Maryland.

Application Process and Format

Candidates should submit an electronic file format (PDF or Microsoft Word document) cover letter, resume and two references to the CDCB CEO at joao.durr@uscpcb.com. Screening will continue until a suitable candidate is identified.

The Council on Dairy Cattle Breeding is an Equal Opportunity Employer.