**Research Biologist (Computational/Bioinforamtics) (Post Doctoral)**

**USDA ARS, South East Area, Sugarcane Production Research Unit, Canal Point, FL 33438**

**Appointment Type** – Temporary (initially 13 months and possibly to an extent up to 4 years)

**Work Schedule** – Full Time

**Salary and benefit** – GS11, $77,274 starting with all federal benefits (i.e. health insurance, annual leave, sick leave, life insurance, 401K, retirement plans).

**Telework eligible** – Yes, determined by the agency policy.

**Major Duties and Responsibilities -**

Incumbent will Perform **bioinformatics and statistical analysis in genetics, genomics, and molecular breeding research.** Develop an extensible pipeline for NGS based whole genome sequencing, and genotyping for highly polyploid and complex genome sugarcane using both DNA and RNA. Perform analysis related to genomic selection, QTL mapping, genome wide association study (GWAS), and transcriptome analysis using the latest bioinformatics and statistical software. Lead implementation of the application of machine learning methodologies in plant phenotyping and genotyping for the sugarcane molecular biology lab. Provide technical support, guidance, and training in computational analysis using bioinformatics and statistical tools. Conduct phenotype trials related to sugarcane genetics and genomics. Help scientist to conduct trials for CP sugarcane breeding genotype selection.

Participates in the preparation of data for scientific technical reports and manuscripts.

Keeps abreast of current scientific advancement by reading literature, review articles, and attending supervisor approved meetings, workshops, and conferences.

Performs other duties as assigned.

**Travel Required**

Occasional travel - Local and domestic travel will be required for field work and to attend training and scientific meetings and conferences.

**Who can apply** - **U.S. citizens, nationals, current green card holder or those who owe allegiance to the U.S.**

**Education and Knowledge Required** - A recent Ph.D. (within last four years) in Biological Sciences, Genetics, Agriculture, Natural Resource Management, Chemistry or a related field of study that has equipped the applicant with the necessary knowledge, skills and abilities to perform the duties and responsibilities of the position. Knowledge and experience in multiple programming languages and platforms (eg Python, perl, C/C++, R, and SAS). Familiarity with NGS based sequence analysis including cleaning, alignment, variant calling, and filtering is highly desirable. Working experience on R scripting, analytical pipeline developing, and interpreting is desirable. Skills in GWAS, QTL, genomic selection, and transcriptome analysis are required. Research experience related to genetics, genomics, and molecular biology will be a plus.

**How to Apply**: Please email a CV, three references, and a cover letter to Dr. Md S. Islam (md.islam@usda.gov) as early as possible. Further contact as below

Md Sariful Islam, PhD

Research Molecular Biologist, Sugarcane Production Research Unit

USDA ARS SEA,12990 US Hwy 441 N, Canal Point, FL 33438, USA

Tel: 561-924-5227 Ext. 123

Fax: 561-924-6109. Email: Md.Islam@usda.gov