

Running title

Maize geneticist, bioinformatics specialist and molecular breeder

**Three Maize Genomics, Bioinformatics and Molecular Breeding  
Positions Available  
at CIMMYT-CAAS Joint International Research Center, Beijing**

International Maize and Wheat Improvement Center (CIMMYT), Mexico and Chinese Academy of Agricultural Sciences (CAAS), Beijing will establish a CIMMYT-CAAS Joint International Research Center (JIRC) in the Institute of Crop Sciences, CAAS. JIRC has now three full-time positions open in the fields of maize genetics, bioinformatics and molecular breeding at the level of associate or full research professor including one second-level outstanding scientist. The successful candidates will work as a team with focus on abiotic stresses including drought and low nitrogen and phosphorus. A full package will be provided for the successful candidates with salary and benefit comparable to the full-time CAAS staff on the research track.

**General requirements**

Ph.D. with a minimum of 2-3 years of postdoctoral experience for hiring at associate professor level, and 7+ years of research experience for hiring at full professor level. Application for the full professor will require significant publications in international journals. Successful candidates should have ability to plan, manage and coordinate research activities and to supervise and lead other team members, and ability to work well as part of multidisciplinary teams. Other qualifications include fund raising ability and proficiency in spoken and written English. The preference will be given to the applicants who were educated or trained in developed countries or advanced institutions for a minimum of two years and who have maize research experience. Chinese citizenship is required.

The following shall be **specific responsibilities and qualifications** for the three positions:

**Maize Molecular Geneticist. Responsibilities:** Develop high-throughput discovery and validation approaches for biotic/abiotic stress tolerance and yield enhancement of maize; lead the research activities for gene discovery, characterization and development using state-of-the-art technologies and multidisciplinary approaches. **Requirements:** Ph.D. in plant biology, genetics, breeding, plant physiology, biotechnology, or related fields; experience in developing and implementing a high throughput gene discovery and validation pipeline in crop or model species, preferably maize. Experience in fine mapping, gene cloning and functional analysis in crop plants and proficiency in application of relevant software.

**Maize Bioinformatics Specialist. Responsibilities:** Design and implement bioinformatics analysis work flows through developed or adopted analysis software, high performance computing and networking tools; perform whole genome sequence- or candidate gene-based genetic diversity analysis, genetic mapping and allele mining; Lead the comparative integration and value added bioinformatics analysis of consolidated data sets, and generating biological information for use by the maize scientific community; Document all related research activities

in sufficient detail to guide scientific research using comparable data sets. **Requirements:** Ph.D. degree in plant genomics, bioinformatics or related fields; strong background in bioinformatics and plant genetics (preferably maize); experience with biometrical genetics and statistics. Preference will be given to those with experience in the following areas: statistical analysis using R/SAS, software development in Java, relational database design and administration, knowledge of abiotic stress tolerance, and familiarity with molecular marker-assisted breeding programs.

**Maize Molecular Breeder. Responsibilities:** Deploy molecular technologies to facilitate marker assisted breeding with special emphasis on the areas of experimental design, data analysis (including phenotypic and molecular), marker assisted selection and prediction strategies, allele and gene mining; Identify and utilize germplasm diversity in breeding programs using molecular tools; Develop strategies to identify the underlying genetic factors responsible for traits important to maize breeding; Develop markers and tools for molecular breeding. **Requirements:** Ph.D. degree in plant genetics, molecular biology and/or plant breeding (preferably maize); familiarity with large-scale germplasm collections and field breeding programs; strong background in quantitative and/or population genetics; ability to optimize high throughput low cost marker-assisted selection pipelines; skills and knowledge of SSR, SNP and gene-based marker development, validation and application; knowledge of abiotic/biotic stresses and component trait analysis of other complex agronomic traits.

Please send via e-mail your letter of application, CV/Resume (including full contact information), and names and contact information of three references to Dr. Yunbi Xu ([y.xu@cgiar.org](mailto:y.xu@cgiar.org)). We will accept applications until 15th Aug 2010 or appropriate candidates are identified. Chinese version of this announcement can be found at <http://www.caas.net.cn/caas/news/showNews.asp?id=7862>.