



**Agricultural Research Service**  
**U.S. DEPARTMENT OF AGRICULTURE**  
*"The premier food and agricultural research agency of USDA"*

**Post-Doctoral Research Associate**  
**Chemistry Research Unit**

**Center for Medical, Agricultural, and Veterinary Entomology**  
**Gainesville, Florida USA**

GS-11 Starting salary of \$66,214 per annum plus benefits.  
Citizenship restrictions apply. Ph. D required.

**Job Description:**

The USDA-ARS Chemistry Research Unit at the Center for Medical, Agricultural, and Veterinary Entomology is seeking highly qualified candidates for a temporary full-time Postdoctoral Research Associate position in Gainesville FL. The position may be extended at the end of each year for maximum of four years.

The position is in the Block Lab in the Chemistry Research unit and the focus of the research is on the chemical defenses of maize (corn) against insect pests, particularly fall armyworm and corn silk flies. Maize uses a variety of chemicals to defend itself against herbivorous insects both directly by inhibiting insect growth, feeding or attraction and indirectly by attracting predators or parasites. These chemicals include volatile organic compounds, flavonoids, benzoxazinoids and phytoalexins. The Block lab uses co-expression analysis and mGWAS to identify genes involved in the production of these chemical defenses. CRISPR/Cas9 and transposon-based strategies are then used to isolate maize mutants in these genes to confirm their function and unravel the function of the chemicals they produce. The Block group also studies the impact of abiotic stresses (elevated carbon dioxide, flooding, drought, and extreme temperature) on the chemical defenses of maize and the impact these combinatorial stresses have on insect resistance, as well as the role of plant volatiles in chemical ecology.

**Preferred skills include** plant molecular biology, GWAS, plant-insect bioassays, plant metabolite analysis by GC-MS or LC-MS.

For more details on the research and recent publications see: [Anna Block : USDA ARS](#)

To apply or for more information please email a CV and cover letter to:  
Dr. Anna Block at [anna.block@usda.gov](mailto:anna.block@usda.gov)

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