

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Identifying Honeybee Insect Bio-Receptors for Explosive Detection

Discipline: Interdisciplinary
Type of Project: Research
Funding Agency: US Army Core of Engineers
Other Partners/Cooperators: Montana State University
Effective Dates: 5/26/2010 - 5/26/2011
Funding Amount: \$46,555

Investigators and Agency Representative:

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Project Abstract:

The aims of this proposed project are the isolation, expression and functional characterization of honeybee odorant receptors that bind and respond to trace explosives such as DNT. The research project is proposed to the U.S. Army Corps of Engineers Engineering Research and Development Center (ERDC) at the Construction Engineering Research Laboratory (CERL) in Champaign, Illinois. The Recipients specific stated objectives are: (1) Clone honeybee odorant receptors into a functional expression system; (2) Screen the receptors for activation by a variety of ligands such as produced by explosives and 3) characterization of ligand binding specificity of the receptors identified in Objective 2.

Outcomes with Completion Dates: May 26, 2011

Keywords: Honeybee Insect Bio-Receptors, Explosive Detection, Department of Defense, U.S. Army Corps of Engineers Engineering Research and Development Center (ERDC), Montana State University