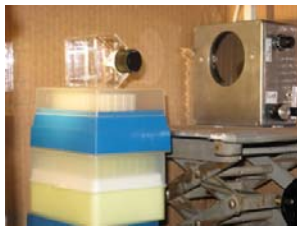


EVALUATING INSECT LURES



This sand fly, engorged with blood from a prior victim, is a vector for spreading disease.

---- U.S. Army WRAIR Photo



Sand flies in a vessel are detected by adjacent photocell.

---- APTIV Inc. Photo

“FirstLink facilitated the preparation and execution of this agreement with Walter Reed, allowing us to focus on the development of this critical tool to assist the warfighter. We feel fortunate to have discovered a collaborator with such expertise and interest.”

*Philipp Kirsch
Chief Technology Officer
APTIV, Inc.*

Entomologists at Walter Reed Army Institute for Research (WRAIR) will investigate promising technology being developed at APTIV, Inc. to advance the Army’s research efforts on insects and their role in disease transmission. Explains Philipp Kirsch of APTIV, “One important element for preventing the spread of insect-borne diseases, naturally, is the early awareness obtained by monitoring insects that spread them. That can enable timely intervention.” That would be greatly appreciated by soldiers in the Middle East who are exposed to unpleasant diseases borne by sand flies, and by farmers in agricultural areas where pests may compromise crops. There is also concern that insects can be unleashed as a weapon to infect targeted populations.

Practitioners in this field are familiar with the logistical challenges of luring insects in order to monitor and study them. Carbon dioxide gas (CO₂) is widely recognized as an effective lure for certain troubling insect species. Propane combustion is typical in the devices popular for residential outdoor mosquito control. But the hardship of getting and replenishing CO₂ or propane canisters is significant when the area to be addressed is large, transient, or remote.

APTIV’s technology, which overcomes some of the current challenges of insect luring, detection and identification, is the subject of a Cooperative Research and Development Agreement between WRAIR and APTIV. The arrangement was realized with the support of representatives John Stiteler and Claudia Golenda, both of WRAIR’s Office of Research and Technology Application, and FirstLink, which facilitated the preparation and execution of the CRADA.

More frequent and more informative insect data collection in the field can lead to improved health outcomes for the exposed population, as well as for the environmental surveillance teams that otherwise enter potentially hazardous locations to assess the situation.

WRAIR focuses on medical research relevant to soldiers, with a unique understanding of military operations and environments, including the stresses and exposures troops encounter and the performance requirements of a deployed military force.

FirstLink is the Department of Defense’s National Center of Excellence for First Responder Technology Transfer, supporting emergency and security needs through the development of commercial pathways between Department of Defense Science & Technology, private industry and universities.

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