

DRIVE INNOVATION – BECOME A PARTNER!

University researchers and industry join forces to develop improved arthropod management technologies



Mission

Established in 2013, the Center for Arthropod Management Technologies (CAMTech) is a National Science Foundation Industry / University Cooperative Research Center, based at Iowa State University and the University of Kentucky, USA. Our mission is to streamline the efforts of industry, government and academia toward development of technologies for effective management of arthropod pests. Research within the center is aligned with the needs of industry to expedite the delivery of new tools for pest management.

Benefits of I/UCRC Membership

While the I/UCRC is largely supported by membership fees, the benefits of industry membership far outweigh the annual fee of \$50,000. I/UCRC member benefits include:

Leverage research funds from other center members and NSF. The consolidated funding allows for at least 20 times the individual investment to address pressing research needs.

Get research results early. Industry members have pre-publication research results available for review.

Influence research directions. Representatives from each member company serve on the Industry Advisory Board which prioritizes center research.

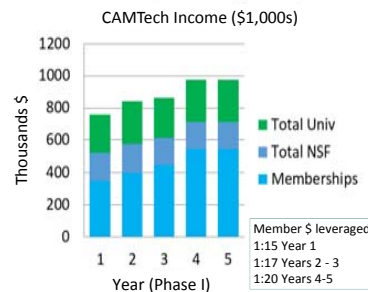
Meet prospective employees. A primary goal of the I/UCRC is to provide a pipeline of well-qualified scientists (graduate students and postdoctoral fellows) to industry.

Interact with others in the field. The I/UCRC provides the opportunity for a company to engage on a pre-competitive basis with a diverse group of university and industry peers.

Get a jump start on research leads. Industry members have the ability to utilize information gained from center research to competitive advantage.

Obtain licensing rights. Members have the option to a royalty-free/non-exclusive license or, in the situation where only one member desires a license, an option to an exclusive/royalty bearing license.

Establish partnerships to pursue opportunities for major federal funding.



Logistics

The I/UCRC includes two university sites, Iowa State University and the University of Kentucky, and currently has eleven industry partners. An Industry Advisory Board (IAB) comprised of representatives from each member company convenes twice a year, once to review research progress and once to review new project proposals.



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Research

The Center provides the basic research foundation necessary for the applied goals of industry. Research projects, prioritized at the outset by the industry members, include pests of agricultural, medical and urban importance.

Projects funded by CAMTech include:

- **Mechanisms of RNA interference:**
Why does RNAi work so well in beetles, but not in other insects?
- **Establishment of midgut cell lines from select pest insects:**
Establishment of continuous cell lines from the midgut of selected pest insects to use for assessment of potential pest suppression agents
- **Enveloped porous nanoparticles for RNA delivery to insects:**
Utilizing porous silica nanoparticles to deliver RNA and small proteins into insect cells
- **A toolkit to explore soybean cyst nematode genomic diversity:**
Leveraging the recently assembled draft genome of the soybean cyst nematode to advance our understanding of the genetic diversity and pathology of soybean cyst nematodes
- **Integrating IPM into IRM theory for improved resistance management and pest suppression:**
What are the prevalent factors influencing resistance to Bt crops, and what are the efficacies of various IPM strategies in delaying the evolution of resistance?
- **Understanding dispersal by western corn rootworm: effects of larval density on flight and effect of flight on female reproduction:**
What are the effects of larval density on flight behavior, and how does flight behavior affect female reproductive output?

Acknowledgements

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