

Pacific Southwest Center of Excellence in Vector-Borne Diseases

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The Pacific Southwest Center of Excellence in Vector-Borne Diseases (PacVec) was funded by the Centers of Disease Control and Prevention (CDC) in September 2017 and is located jointly at UC Davis and UC Riverside. PacVec is one of five Centers of Excellence (CoEs) funded through 2021 and serves a region that incorporates Health and Human Services Region 9 and beyond. PacVec initially served California, Arizona, Nevada, Hawaii and the US-affiliated Pacific Islands. In the second year of the program, the geographic area served by PacVec expanded to include Utah. PacVec also funds a study of mosquito populations on the West Coast including Oregon and Washington.

The five Centers of Excellence have three primary objectives: (1) conduct applied research to develop and validate (i) effective prevention and control tools and (ii) methods to anticipate and respond to disease outbreaks; (2) train vector biologists, entomologists, and physicians in the knowledge and skills required to address vector-borne disease concerns; and (3) strengthen and expand collaboration between researchers and public health organizations for surveillance, prevention, and response. An important group of collaborators within PacVec includes academic institutions, the California Department of Public Health and member organizations of the Mosquito and Vector Control Association of California (MVCAC).

PacVec currently supports 27 research and development projects at 10 universities in our region examining new and existing ways to detect, characterize and control threats from mosquito- and tick-borne diseases. The CoE supports research projects of 16 principal investigators at UC Davis and UC Riverside, as well as research at other academic institutions through an annual training grant program. These research projects include collaborations with the

MVCAC, the California Department of Public Health, 15 individual vector control districts, and other county and state health departments within the region served by PacVec.

PacVec maintains a website (<https://pacvec.us/>) that contains information on the CoE and its research activities as well as links to other resources. Some of the resources include a training grant program (<https://pacvec.us/training-grants/>) and a monthly seminar series (<https://pacvec.us/seminars/>). The seminars are transmitted by webcast via Zoom and occur on the first or second Tuesday of each month during the academic year (October through June). Presentations rotate between UC Davis and UC Riverside. An archive of recorded presentations also is available. Other resources include training videos and related supplementary material as well as links to publications by CoE members.

The current symposium will highlight research being carried out by PacVec investigators in collaboration with MVCAC member districts. Researchers from UC Riverside, UC Davis and other California academic institutions will discuss their findings on a variety of topics related to the deposition and degradation of public health pesticides, mosquito and tick biology/ecology and control, and pathogen emergence/surveillance.

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