Anna B. Kawiecki

PhD Epidemiology (expected 2022), UC Davis
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SUMMARY OF PROFESSIONAL EXPERIENCE I am a veterinarian training as a research epidemiologist with a focus on vector-borne diseases with a background that encompasses clinical, molecular and quantitative experience. I have extensive experience in conducting field work and managing data in large field-based research operations, performing molecular diagnostic work with arboviruses in both BSL-2 and BSL-3 conditions and with mosquito colony maintenance. Currently I am investigating arbovirus transmission dynamics by building statistical, mathematical and spatio-temporal models.

EDUCATION

University of California, Davis, **Ph.D. Epidemiology** expected 2022
Davis, California

Louisiana State University, **M.Sc. Master in Veterinary and Biomedical Sciences** 2017
Baton Rouge, Louisiana

Universidad Complutense de Madrid, **D.V.M** 2013
Madrid, Spain

EMPLOYMENT

University of California, Davis, **Graduate Student Researcher** 2018- present
Advisor: Dr. Christopher Barker Davis, California

As a **researcher**, I am working on improving the measurement of vector control efficacy and the application of vector control interventions. I am currently modeling how the efficacy of ultra-low volume indoor insecticide spraying varies over space and time, to determine if this intervention has an effect on the vector density in neighboring areas and, if so, the duration of this effect.

University of California, Davis, **Data Systems Analyst** 2017- 2018
Employer: Dr. Amy Morrison Iquitos, Peru

I was a **data manager and analyst** for both a clinical vector control trial ("Spatial Repellents for Arbovirus Control"), a UC Davis-University of Notre Dame collaboration, and an NIH funded P01 grant ("Quantifying Heterogeneities in Dengue Transmission Dynamics") led by Dr. Thomas Scott, based in Iquitos, Peru. I developed a mobile data collection application custom-made for this purpose and setting using CommCare, an application-building software, and was heavily involved in training and troubleshooting with our field teams to ensure the

successful deployment of the app. I also maintained and improved a database of 15,000 human participants and over 100,000 mosquito samples using MySQL, PostreSQL, QGIS and R, and produced project reports that optimized the implementation of the field activities.

Louisiana State University, **Graduate Student Researcher** 2014-2017

Advisor: Dr. Rebecca Christofferson Baton Rouge, Louisiana

As a **researcher** I characterized the antibody response to Zika virus (ZIKV) and Dengue virus (DENV) in mice by:
-evaluating the effect of re-exposure to ZIKV on the neutralization and DENV-enhancement ability of ZIKV antibodies in C56BL/6 mice.
-characterizing the disease, viremia, pathology and antibody response caused by ZIKV in IRF3/7 DKO mice

I also evaluated the vector competence of local *Aedes aegypti* and *Aedes albopictus* mosquitoes to ZIKV and Chikungunya virus (CHIKV), developed and maintained laboratory colonies of field-caught *Aedes aegypti* and *Aedes albopictus*, and became adept at working in Biosafety Level 3 (BSL-3) environments, where most of my experiments took place.

Complutense University of Madrid, **Undergraduate Student Researcher** 2012-2014

Advisor: Gustavo Domínguez Bernal Madrid, Spain

As an **undergraduate student researcher** I participated in the developement of a vaccine against canine Leishmaniasis using an attenuated Salmonella strain as the infection vehicle of a plasmid containing Leishmania antigens into dendritic and macrophage cells.

TEACHING EXPERIENCE

Teaching Assistant: Quantitative Epidemiology II (EPIDEM 203) Winter 2020

CLINICAL EXPERIENCE

Small Animal Clinic Centro Veterinario Villalba IF, **Externship** 2012-2013
Experience in basic diagnostic procedures, anesthesiology and surgery Madrid, Spain

Ruminant Clinic of the Complutense Animal Hospital, **Internship** 2011-2012
Experience in basic diagnostic procedures and anesthesiology Madrid, Spain

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GRANTS & AWARDS

Graduate Student Support Program, School of Veterinary Medicine 2020–2021

21,000$ U.C. Davis

Pacific Southwest Center of Excellence in Vector-borne Diseases fellowship 2019-2020

30,000$ U.C. Davis

Graduate Student Support Program, School of Veterinary Medicine 2018–2019

21,000$ U.C. Davis

Hannelore-Storz Travel Award 2016

500$ Lousiana State University

Prize for Best Scientific Communication 2012

11th Congress of Veterinary and Biomedical Sciences Universidad Complutense de Madrid

Erasmus Scholarship 2010-2011

One year study abroad program Justus-Liebig Universität, Giessen, Germany.

PUBLICATIONS

Kawiecki, AB and Christofferson, R. C. "Zika-induced antibody response enhances dengue serotype 2 replication in vitro." *Journal of Infectious Diseases* 2016

Kawiecki, AB, Mayton EH, Dutuze MF, Goupil BA, Langohr IM, Del Piero F and Christofferson, R. C. "Tissue tropisms, infection kinetics, histologic lesions, and antibody response of the MR766 strain of Zika virus in a murine model". *Virology Journal* 2017.

Elson WH, Reiner RC, Siles C, Bazan I, Vilcarromero S, Riley-Powell AR, **Kawiecki AB**, et al. "Heterogeneity of Dengue Illness in Community-Based Prospective Study, Iquitos, Peru". *Emerging Infectious Diseases* 2020

PRESENTATIONS

Kawiecki, A. B., Morrison A. C., Barker C. M., "Spatial analysis on the impact of Ultra-low Volume indoor insecticide spraying on Aedes aegypti household density" (Poster). GeoVet, Davis, California, USA, 2019

Kawiecki A. B., Elson W.H.D., Donnelly M., Schwarz J., Simpson J. K., Barker C. M., Scott T. W., Achee N.L., Morrison A. C. "Use of mobile data collection tools to improve implementation of epidemiological trials in Iquitos, Peru". (Poster). American Society of tropical Medicine and Hygiene 67th Annual Meeting, New Orleans, Louisiana, USA, 2018

Kawiecki, A. B. and Christofferson, R. C.. "Boosting alters the cross-neutralizing capacity of antibody-response following Zika exposure in C57Bl/6 mice." (Oral). American Society of tropical Medicine and Hygiene 65th Annual Meeting, Atlanta, Georgia, USA, 2016

Kawiecki, A. B. and Mayton EH, Dutuze MF, Goupil BA, Langohr IM, Del Piero F and Christofferson, R. C. "Characterization of a murine model of Zika virus infection: histologic lesions and evidence of a role for epididymal epithelial cells in sexual transmission" (Poster). Phi Zeta Emphasis Day, Baton Rouge, Louisiana, USA, 2016

Kawiecki, A.B. "Vector competence for Arboviruses of Louisiana strains of Aedes mosquito species" (Oral). 57th Annual Meeting of the Louisiana Mosquito Control Association, Lake Charles, Louisiana, USA, 2015

Kawiecki, A. "Organochlorine Insecticides: Identification, Evaluation and Assesment of Risks" (Oral) [Spanish]. 12th Congress of Veterinary and Biomedical Sciences, Complutense University, Madrid, Spain, 2013

Kawiecki, A. "Food chain: alternatives from food sovereignty" (Oral) [Spanish]. 12th Congress of Veterinary and Biomedical Sciences, Complutense University, Madrid, Spain, 2013

Kawiecki, A. "Tendon retraction in young calves," (Oral) [Spanish]. 11th Congress of Veterinary and Biomedical Sciences, Complutense University, Madrid, Spain, 2012 Awarded a Prize for Best Scientific Communication.

Kawiecki, A. "Healing properties of honey," (Oral) [Spanish]. 11th Congress of Veterinary and Biomedical Sciences, Complutense University, Madrid, Spain, 2012

OUTREACH

Girls in Outdoor Adventure in Leadership and Science (GOALS) Mentor 2018-2019

GOALS is a student-led organization at U.C. Davis that promotes field-based science and leadership skills in femme-identifying high school students through a free, immersive two-week backpacking trip to the Sequoia and King's Canyon National Park. In addition to this trip, GOALS provides the participants with a one-on-one year-long mentoring program that participated in. This program is meant to work on the skills learned on the trip and help the participants with college applications and questions related to future careers in STEM.

Davis Night Market 2019- present

The Davis Night Market is a non-profit organization with the goal of reducing food insecurity, food waste, building community, and sustainability. It operates by recovering left-over food from local businesses in the city of Davis and distributing them freely at the central park. I am heavily involved in the organization, food recovery and outreach activities of this organization.

LANGUAGES

-Spanish (fluent)
-English (fluent)
-Polish (fluent)
-German (intermediate -B2)