

The Foy lab is conducting a field study that will test a new method to control the transmission of West Nile Virus around Northern Colorado households. Interested in participating? Check out this [flyer](#) for more information.

As a member of the [Center for Vector-Borne Infectious Diseases](#) (CVID) at Colorado State University, the Foy laboratory focuses on the interactions of vectors with their hosts and with vector pathogens. The goal is to link research employing molecular, proteomic and genomic techniques to practical applications for controlling arthropod-borne diseases. A main research component in the Foy lab is to interrupt the intense transmission of malaria and arboviruses by targeting the vector through their bloodmeals using drugs that attack vector physiology and that inhibit pathogen development or using anti-vector immunity driven by vaccination. The Foy lab is also developing mosquitoes and other vectors as biosurveillance tools, studying unique aspects of arbovirus transmission and arbovirus survival in vectors, and studying poorly understood mosquito pathogens for their prospects to become vector-borne disease control tools. The Foy lab is also a part of the [Rockies and High Plains Vector-borne Diseases Center](#), a regional training and evaluation center funded by the CDC where Brian Foy serves as co-director.



RESEARCH PROJECT

REPEAT IVERMECTIN MASS DRUG ADMINISTRATIONS FOR MALARIA CONTROL II (RIMDAMAL II)


This is a cluster randomized clinical trial in Burkina Faso to test whether repeated ivermectin mass drug administrations, integrated into a monthly delivery platform with standard malaria control measures of seasonal malaria chemoprevention and insecticide-treated bed net distribution, will reduce childhood malaria incidence and limit resistance development in mosquitoes and parasites.

PUBLICATIONS


- [Safety and efficacy of repeat ivermectin mass drug administrations for malaria control \(RIMDAMAL II\): a phase 3, double-blind, placebo-controlled, cluster-randomised, parallel-group trial.](#)**
Somé AF, Somé A, Sougué E, Ouédraogo CDW, Da D, Dah SR, Nikiéma F, Magalhaes T, Gray LI, Finical W, Pugh G, Lado P, Randall JC, Burton TA, Ring ME, Leon AS, Colt M, Li F, Wang K, Wade M, Lier AJ, Richards K, Sproch H, Zhang E, Ellman J, Achebe I, Jackson CL, Xiao M, Wu EJ, Bousema T, Slater HC, Foy BD, Parikh S, Dabiré RK.Lancet Infect Dis. 2025 Feb 4:S1473-3099(24)00751-5. doi: 10.1016/S1473-3099(24)00751-5. Online ahead of print. PMID: 39919778
- [Intrinsic factors driving mosquito vector competence and viral evolution: a review.](#)**
Lewis J, Gallichotte EN, Randall J, Glass A, Foy BD, Ebel GD, Kading RC. Front Cell Infect Microbiol. 2023 Dec 21;13:1330600. doi: 10.3389/fcimb.2023.1330600. eCollection 2023. PMID: 38188633
- [Evaluation of Vector-Enabled Xenosurveillance in Rural Guatemala.](#)**
McMinn RJ, Chacon A, Rückert C, Scorza V, Young MC, Worthington D, Lamb MM, Medrano RE, Harris EK, Arias K, Lopez MR, Asturias EJ, Foy BD, Stenglein MD, Olson D, Ebel GD. Am J Trop Med Hyg. 2023 Oct 16;109(6):1303-1310. doi: 10.4269/ajtmh.22-0774. Print 2023 Dec 6. PMID: 37972312
- [Colorado tick fever virus: a review of historical literature and research emphasis for a modern era.](#)**
Harris EK, Foy BD, Ebel GD. J Med Entomol. 2023 Oct 20:tjad094. doi: 10.1093/jme/tjad094. Online ahead of print. PMID: 37862094
- [Predicted reduction in transmission from deployment of ivermectin-treated birdfeeders for local control of West Nile virus.](#)**
Holcomb KM, Nguyen C, Komar N, Foy BD, Panella NA, Baskett ML, Barker CM. Epidemics. 2023 Sep;44:100697. doi: 10.1016/j.epidem.2023.100697. Epub 2023 Jun 16. PMID: 37348378

MORE PUBLICATIONS


PEOPLE




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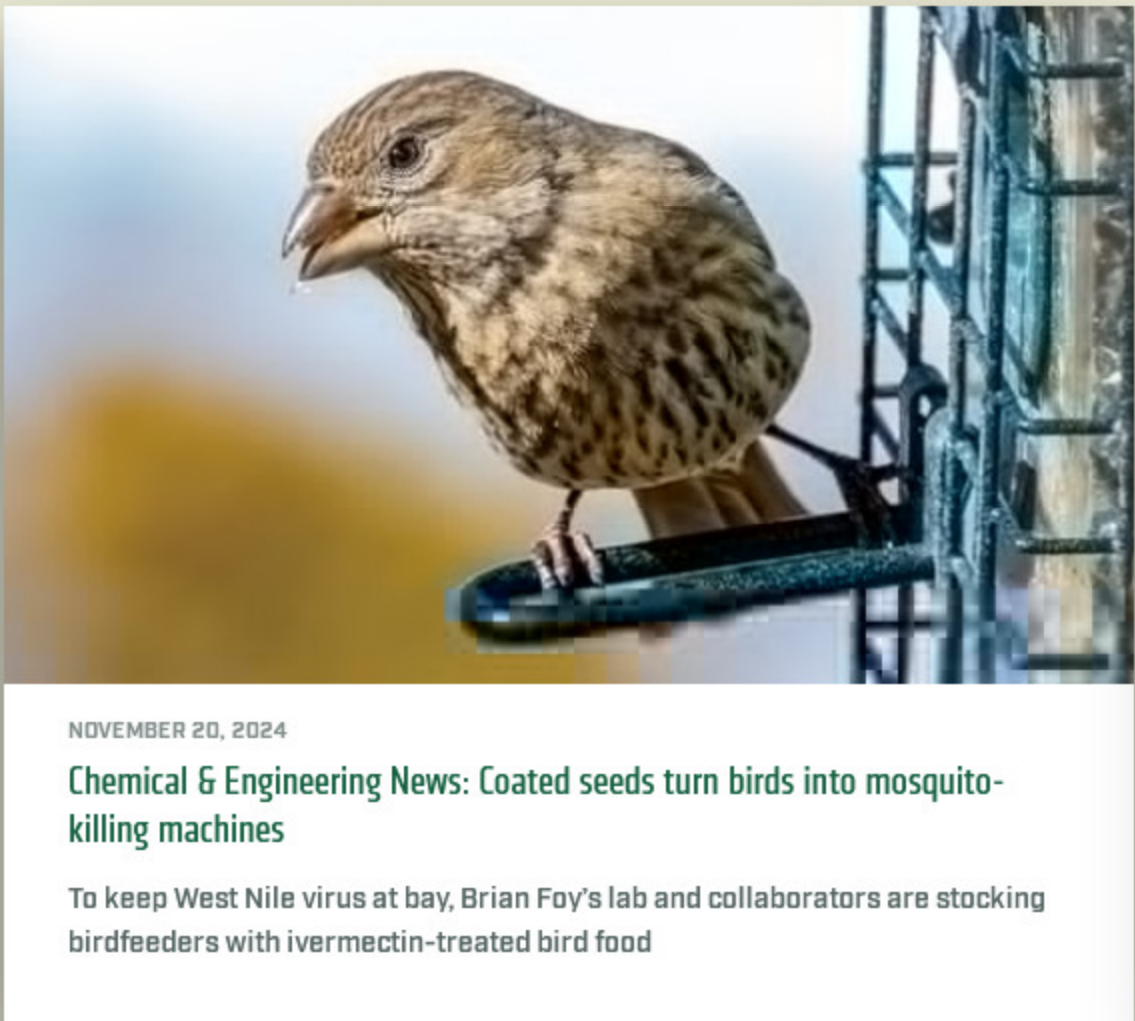
Chilinh Nguyen and Brian Foy building field study boxes.

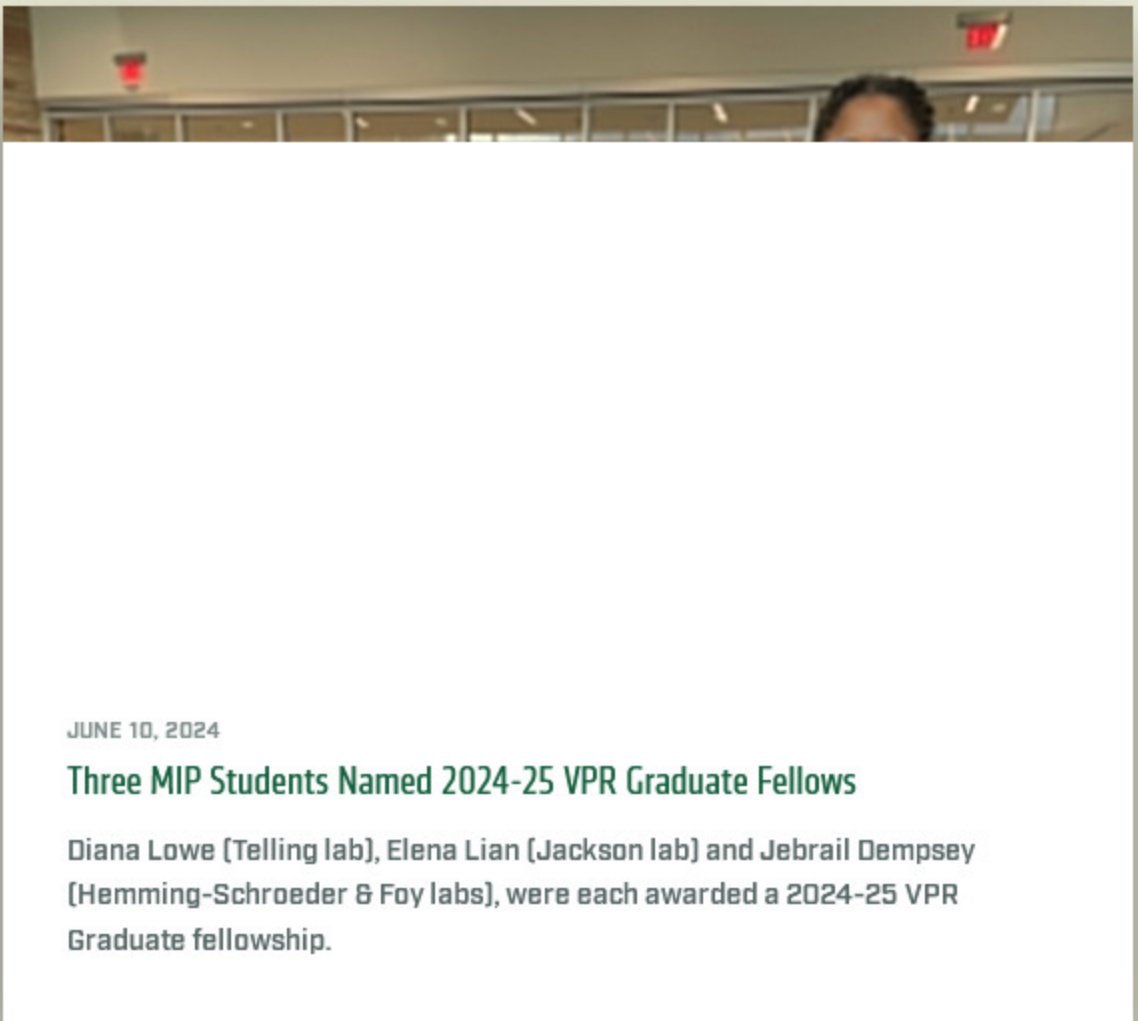



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