

DR. CARA HALLDIN: LIEUTENANT COMMANDER IN THE U.S. PUBLIC HEALTH SERVICE COMMISSIONED CORPS AND STAFF EPIDEMIOLOGIST IN THE DIVISION FOR RESPIRATORY DISEASE STUDIES AT NIOSH

Cara (Henry) Halldin was a 2005 WV-INBRE summer intern in the lab of Dr. Bev Delidow at Marshall University. Following graduation from Bethany College, she conducted her Ph.D. research at the Center for Global Health and Diseases in the Case Western University School of Medicine. The title of her dissertation was "'Disease vectors of Papua New Guinea, members of the *Anopheles punctulatus* species complex (Diptera:Culicidae)- Molecular diversity, species identification and implications for integrated vector management." Dr. Halldin's research focused on gaining a better understanding of the diversity, differentiation, and ancestral relationships of the five most prominent members of the *Anopheles* mosquito species. Her work was part of an international collaboration with the Papua New Guinea Institute of Medical Research where she traveled to conduct field work on her project. In the process of exploring genetic species definitions, she was able to develop molecular methods for reliable species identification as well as methods to monitor for the development of point mutations associated with increased resistance to insecticides used for vector/disease control purposes. Her research appears in a number of publications including the *Proceedings of the National Academy of Sciences, USA; American Journal of Tropical Medicine and Hygiene; Infection, Genetics and Evolution; and Pharmacogenetics*.

Following graduation, Dr. Halldin was commissioned as an officer in the U.S. Public Health Service Commissioned Corps and then received a postdoctoral fellowship in the program of Epidemic Intelligence Service at the Centers for Disease Control and Prevention in the Morgantown, WV, National Institute of Occupational Health and Safety (NIOSH) facility.

Dr. Halldin is currently a Lieutenant Commander in the Corps and a staff epidemiologist in the Division for Respiratory Disease Studies at NIOSH. Her current work includes identifying workers at risk for developing lung impairment due to occupational exposures and lifestyle factors, with a focus on metal, non-metal, and coal miners. During tenure at NIOSH, she has co-authored 12 manuscripts.

Dr. Halldin states "Looking back, doing INBRE opened so many doors for me. I really love my job now, even though it is not at the bench, and I doubt I would have made it this far without that summer experience."

