

### BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.  
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Eleanor R Deardorff	POSITION TITLE Postdoctoral Fellow		
eRA COMMONS USER NAME (credential, e.g., agency login) ERDEARDO			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Reed College University of Texas Medical Branch	BA PhD	2001 2009	Biology Experimental Pathology

**NOTE: The Biographical Sketch may not exceed four pages. Follow the formats and instructions below.**

#### A. Personal Statement

Conservation medicine is a multidisciplinary field of study at the interface of conservation biology and public health. Many infectious diseases of man have emerged from animal reservoirs in recent years, often as a result of anthropogenic ecological changes. Public education is a key to the problems confronting both conservation biology and public health, thus it is a crucial component of any successful conservation research effort. Zoonotic diseases and their impacts on both human and wildlife communities are at the forefront of research in this discipline. For my doctoral work, I knew that I wanted to conduct field research on zoonotic viruses in a foreign country, thus I joined the lab of Dr. Scott Weaver at UTMB and began studying the ecological cycle of Venezuelan equine encephalitis virus in Chiapas, Mexico. My current postdoctoral research project is part of an ongoing research program in the laboratory of Dr. Greg Ebel. Broadly, we study arbovirus evolution and adaptation. Specifically, we study the effect that genetic diversity has on the phenotype of West Nile virus (WNV) in vertebrate and invertebrate amplifying hosts. My project focuses on the influence of viral genetic diversity on infection outcome within an avian model. Various WNV quasispecies populations have been created either by serial passage of viruses in vertebrate or invertebrate hosts or by mixing known quantities of genetically divergent virus strains together. These quasispecies populations are then competed against marked control viruses to evaluate the role of genetic diversity on viral fitness. My long-term career goal is to contribute my creativity and energy to helping solve problems of conservation medicine. I would like to remain active in the research community of the Southwest and be an advocate for protecting and conserving the unique ecology found here.

#### B. Positions and Honors

##### Positions and Employment

- 2001—2002    Research Assistant I, Dept. of Pathology, Oregon Health Sciences University, Portland OR
- 2002—2003    Research Assistant II, Dept. of Infectious Disease, Oregon Health Sciences University, Portland OR
- 2003—2009    Graduate Research Assistant, Dept. of Experimental Pathology, University of Texas Medical Branch, Galveston TX
- 2009—        Postdoctoral Fellow, Dept. of Pathology, University of New Mexico, Albuquerque NM.

##### Honors, Membership and Service

- 2005 Third Place, Edward S. Reynolds Award for Mechanistic/Basic Science Research by a Graduate Student, UTMB.
- 2008 Third place, Hector P. Garcia Cultural Competence Essay Contest, UTMB.
- 2008 Accepted to participate in 6th Annual Ecology and Evolution of Infectious Disease workshop, Colorado State University
- 2009 Travel Award, James. W. McLaughlin annual colloquium, UTMB.
- 2005—2007 Member, Wildlife Disease Association
- 2008—2009 Member, American Society for Microbiology
- 2009— Reviewer, American Journal of Tropical Medicine and Hygiene

### C. Selected Peer-reviewed Publications

1. Fitzpatrick, K. A., Deardorff, E. R., Pesko, K., Brackney, D., Zhang, B. Bedrick, E., Shi, P-Y, Ebel, G.D. **Population variation of West Nile virus confers a host-specific fitness benefit in mosquitoes.** 2010, *Virology*. 404(1):89-95.
2. Deardorff, E.R., Weaver, S.C. **Infection of Culex (Melanoconion) taeniopus with Equine Virulent Strains of Venezuelan Equine Encephalitis Virus subtype IE.** 2010, *Am J Trop Med Hyg*, Vol. 82, No.6, p.1047—1052.
3. Deardorff, E.R., Forrester, N.L., Travassos da Rosa, A., Estrada-Franco, J.G., Navarro-Lopez, R., Tesh, R.B., Weaver, S.C. **Experimental Infections of Oryzomys couesi With Sympatric Arboviruses from Mexico.** 2010, *Am J Trop Med Hyg* Vol. 82, No.2, p.350—353.
4. Vasilakis, N., Deardorff, E.R., Kenney, J., Rossi, S.L., Hanley, K.A., Weaver, S.C. **Mosquitoes Put the Break on Evolution: Experimental Evolution Reveals Slower Mutation Accumulation in Mosquito Cells than Vertebrate Cells.** *PLoS Pathog.* 2009 Jun;5(6):e1000467. Epub 2009 Jun 5.
5. Deardorff, E.R., Forrester, N.L., Travassos da Rosa, A., Estrada-Franco, J.G., Navarro-Lopez, R., Tesh, R.B., Weaver, S.C. **Experimental infections of potential Mexican reservoir hosts with Venezuelan equine encephalitis virus.** 2009. *Emerging Infectious Disease*, Vol. 15, No.4. p.519—525.
6. Forrester, N. L., Kenney, J. L., Deardorff, E. R., Wang, E. & Weaver, S.C. **Western equine encephalitis submergence: lack of evidence for a decline in virus virulence.** 2008. *Virology*, Vol. 380, No. 2, p. 170—172.
7. Deardorff, E.R. Estrada-Franco, J.G., Brault, A.C., Navarro-Lopez, Campomanes-Cortes, A., Paz-Ramirez, P., Solis-Hernandez M., Ramey, W., R., Davis, C.T., Beasley, D.W.C., Tesh, R.B., Barrett, A.D.T., and Weaver, S.C. **Introductions of West Nile Virus to Mexico.** 2006. *Emerging Infectious Disease*, Vol.12, No.2, p.314—318.
8. Greene, I. P., Wang, E., Deardorff, E. R., Milleron, R., Domingo, E., and Weaver, S. C. **Effect of alternating passage on adaptation of Sindbis virus to vertebrate and invertebrate cells.** 2005. *J. Virol.*, Vol 79, No. 22, p.14253—14260.

### D. Research Support

#### Ongoing Research Support

K12GM088021 Wandering-Ness (PI) 9/15/09-8/31/14  
Institutional Research and Academic Career Development Award. The Academic Science Education and Research Training program for postdoctoral fellows at the University of New Mexico has three goals. First, to increase the number of NRSA eligible and minority post-doctoral fellows at UNM and their competitiveness for academic careers by providing outstanding research mentoring and individualized academic enrichment opportunities. Second, to increase the competitiveness of ASERT Fellows at UNM for academic careers through training in mentoring, teaching methodology and assessment. Third to enhance research-oriented, innovative teaching at MSIs and provide role models for careers in biomedical science through collaborations between ASERT fellows and expert educators.

Program Director/Principal Investigator (Last, First, Middle):

**Completed Research Support (as a student)**

- R36 CDC Grants for Public Health Research Dissertation for 2009 (declined due to award notification after degree completion).
- UTMB James W. McLaughlin Predoctoral Fellowship, for 2007/2008
- T32 NIH Training Grant in Biodefense for 2006/2007.
- T01/CCT622892 CDC Fellowship Training Grant in Vector Borne Infectious Diseases for 2004/2005. Renewed for 2005/2006.