

Eleanor R. Deardorff, Ph.D.

IRACDA / ASERT Post Doctoral Fellow

EDeardorff@salud.unm.edu

505-660-4924 cell

University of New Mexico, School of Medicine
Health Sciences Center, Department of Pathology

CRF-323, 915 Camino de Salud

Albuquerque, NM 87131-0001

Education:

- POST-GRADUATE, UNIVERSITY OF NEW MEXICO, ALBUQUERQUE, NM. 2009—PRESENT.
Non-degree seeking student in the ASERT (Academic Science Education Research Training) program. The National Institute of Health's IRACDA (Institutional Research and Academic Career Development Award), is designed to provide mentored post-doctoral support in biomedical research in selected labs and mentored experience in teaching.
- PHD, EXPERIMENTAL PATHOLOGY, 2009. UNIVERSITY OF TEXAS MEDICAL BRANCH, GALVESTON, TX
Dissertation Title: "Field and Laboratory Studies of Venezuelan Equine Encephalitis Virus Ecology in Chiapas, Mexico."
Dissertation Committee: Scott C. Weaver, Jerry Freier, Charles Fulhorst, Billy Philips, Douglas Watts.
- BA, BIOLOGY, 2001. REED COLLEGE, PORTLAND OR.
Thesis Title: "Cloning of *Ebra*: The *brachyury* homolog of the direct developing salamander *Ensatina eschscholtzii*."
Thesis Committee: Janis Shampay, Steve Black, Allen Neuringer, Margaret Geselbracht.

Research Experience:

- UNIVERSITY OF NEW MEXICO. JUNE 2009 — PRESENT.
Post doctoral fellow for Dr. Greg Ebel, department of pathology. I am investigating how genetic diversity within a population of West Nile virus can influence the outcome of infection and evolution of the virus within the vertebrate and invertebrate hosts.
- UNIVERSITY OF TEXAS MEDICAL BRANCH. SEPTEMBER 2003—MAY 2009.
Graduate student of Dr. Scott Weaver, graduate program in experimental pathology. Field-based research project on the ecology of arboviruses and their associated vertebrate and invertebrate hosts in southern coastal Mexico.
- OREGON HEALTH SCIENCES UNIVERSITY. SEPTEMBER 2001—JULY 2003
September 2002 – July 2003. Research assistant to Dr. Randy Taplitz, department of infectious diseases. Worked closely with Dr. Taplitz, an HIV clinician in the study and characterization of bone marrow as a reservoir for HIV.
September 2001 – July 2002. Research assistant to Dr. Qing Chen, department of pathology. Worked in immunology lab studying molecular mechanisms of autoimmune disease using transgenic mouse model.
- REED COLLEGE BIOLOGY DEPARTMENT. SEPTEMBER 2000—SEPTEMBER 2001
May 2001– September 2001. Murdock Summer Research Assistantship. Worked closely with Dr. J. Shampay in her research into the replication, maintenance and variance of telomeres in *Xenopus laevis*. Also continued independent research from undergraduate thesis work.
September 2000– May 2001. Undergraduate Thesis. Investigated gene expression in early development of the salamander *Ensatina eschscholtzii oregonensis*. Worked independently under the supervision of Professors S. Black and J. Shampay for one academic year.

Teaching and Mentoring Experience:

- CENTRAL NEW MEXICO COMMUNITY COLLEGE. JANUARY 2012—PRESENT.
Part time instructor. Created, designed and implemented an original, problem-based learning course on infectious disease outbreaks.
- UNIVERSITY OF NEW MEXICO. JUNE 2010—AUGUST 2010.
Mentor to undergraduate student in UNM/NMSU Pipeline Network program.
- UNIVERSITY OF TEXAS MEDICAL BRANCH. JANUARY 2005—MAY 2005.
Graduate school class at UTMB, “Teaching in Pathology”, including traditional instruction on teaching as well as hands on laboratory, lecture and examination experience.
- NATIONAL SCIENCE FOUNDATION’S AWARD FOR THE INTEGRATION OF RESEARCH AND EDUCATION. MAY 2000 – DECEMBER 2000.
Performed original research under Dr. J. Shampay and acted as undergraduate research mentor to students in Dr. Shampay’s Genetics and Gene Regulation course.
- REED COLLEGE SCIENCE CENTER. SEPTEMBER 2000—MAY 2001.
Science center coordinator and peer tutor in biology.
- HOWARD HUGHES MEDICAL INSTITUTE BIOLOGY OUTREACH PROGRAM. OCTOBER 1997—APRIL 2000.
Volunteer science teacher in public school 5th and 6th grade classes. Designed and delivered lectures, ran experiments in the classroom, worked closely with children and teachers.
- ADVOCATES FOR WOMEN IN SCIENCE ENGINEERING AND MATHEMATICS. NOVEMBER 1998 – MARCH 1999.
Volunteer group leader. Mentored 7th and 8th grade girls in weekly meetings, prepared and ran experiments, coordinated site visits to local technical institutions.

Additional Training

- ASERT Professional Development Program, UNM Anderson School of Management, 2012.
“Leadership Style and Skills”, “Managing and Participating in Work Teams”, “Managing and Resolving Conflict”, “Time Management, Delegation and Life Planning”, “Effective Performance Appraisals and Motivation”, “Employment Law”
- Developing the Skills of Physicians as Educators in Academic Medicine, UNM 2010.
“Problem-based learning facilitation education”, and “ The Art of Lecturing and Making Presentations, Improving Your Skills.”
- Compliance Training, UNM 2009—2012 annually.
Ethics: A Framework for Ethical Decision Making, “Basic Annual Safety Training, Respiratory Protection, HIPAA, Culture of Compliance, Preventing Sexual Harassment, Safe Use of Biological Safety Cabinets, BSL-3 Hazard Awareness, BSL-3 Lab Biosafety & Emergency Response, ABSL-3 Working Safely with Laboratory Animals, Bloodborne Pathogen Training, Biosafety, Fire Prevention, Formaldehyde, Benzene, Infectious Waste, Lead, Animal Care and Use: Birds, Aseptic Technique for Rodent Survival Surgery, Maintaining Animal Procedure Areas, Syringes and Needles, Guide to the Care and Use of Laboratory Animals.

Funding Awards:

- ASERT post-doctoral fellowship, K12 NIH (National Institute of General Medical Sciences) Institutional Research and Academic Career Development Award, for 2009-2012.
- 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 Predoctoral Training Grant in Biodefense for 2006/2007.

- T01/CCT622892 CDC Predoctoral Fellowship Training Grant in Vector Borne Infectious Diseases for 2004/2005. Renewed for 2005/2006.

Other Honors:

- Travel Award, James. W. McLaughlin annual colloquium, UTMB, 2009.
- Accepted to participate in 6th Annual Ecology and Evolution of Infectious Disease workshop, 2008, Colorado State University
- Hector P. Garcia Cultural Competence Essay Contest, UTMB, 2008, Third Place.
- Edward S. Reynolds Award for Mechanistic/Basic Science Research by a Graduate Student, UTMB, 2005. Third Place,

Service:

- Student Senator – UTMB Student Government Association 2005-2006
- Contributor of Data – MosquitoMap, a component of VectorMap (The Walter Reed Biosystematics Unit).
- Peer Reviewer –
 - PLoS ONE
 - American Journal of Tropical Medicine and Hygiene
 - Research and Reports in Tropical Medicine

Presentations:

1. **Active learning on the spot: Disease Outbreaks (Bio 2096) at CNM.**
Eleanor R. Deardorff and Richard Calabro, Poster Presentation at IRACDA Conference, 2012, University of Pennsylvania.
2. **Time Management and Scientific Time Commitment.**
Eleanor R. Deardorff. Oral Presentation for Undergraduate Pipeline Network student orientation, 2011 and 2012, University of New Mexico.
3. **When the class you design is not the class you teach.**
Eleanor R. Deardorff, Oral Presentation for ASERT Program, 2012, University of New Mexico.
4. **West Nile virus: Laboratory approach to ecological questions.**
Eleanor R. Deardorff. Oral Presentation for ASERT Program, 2012, University of New Mexico.
5. **Influence of duration of extrinsic incubation of West Nile virus genetic diversity within mosquitoes: a whole genome approach.**
Eleanor R. Deardorff, Doug E. Brackney, Ivy Brown, Ruchi Newman, Matt Henn, Gregory D. Ebel. Oral Presentation for American Society of Virology, 2011, University of Minnesota.

Publications in Preparation:

1. Medlin, S., Weaver, S., Hanley, C., Sludak-Campfield, A., Dallwig, R., Jimenez-Soto, M., Deardorff, E., Travassos da Rosa, A., Tesh, R.B., Vaughan, C., Sladky, K., Estrada, A., Martin, P., Paul-Murphy. **Serosurvey of Selected Arboviral Pathogens in Free-Ranging Two-(*Choleopus hoffmanni*) and three-toed (*Bradypus variegatus*) Sloths in Rural Costa Rica, 2005-2007.** 2012. In Preparation for submission to Am J Trop Med Hyg.
2. Deardorff, E.R., Brackney, D., Henn, M., Newman, R., Ebel, G.D. **West Nile virus Genetic Diversity during Mosquito infection.** 2012. In preparation for submission to Journal of Virology.

3. Deardorff, E.R., Brackney, D., Hanley, K., Ebel, G.D. **Transmission Intensity of West Nile virus Affects Diversity**. 2012. In preparation for submission to Journal of Virology.
4. Nofchissy, R.A., Deardorff, E.R., Belvins, T., Ebel, G.D. **Seroprevalance of Powassan virus in Connecticut deer 1979-2009**. In Preparation for submission to Am J Trop Med Hyg.
5. Deardorff, E.R., Ebel, G.D. **West Nile virus: 12 years in North America**. In: *Dynamic Models of Infectious Diseases*. Durvasula R Ed. Springer Science & Business Media. New York, NY.

Publications in Print:

1. Deardorff, E.R., Estrada-Franco, J.G., Travasos da Rosa, A., Navarro-Lopez, R., Tesh, R.B., Weaver, S.C. **Spatial distribution of vectors and reservoir hosts in a VEEV-enzootic region of Southern Mexico**. 2011, Am J Trop Med Hyg, 85(6), 2011, pp. 1146–1153.
<http://www.ajtmh.org/content/85/6/1146.full>
2. Deardorff, E. R., Fitzpatrick, K. A., Shi, P-Y, Jerzak, Greta V S, Kramer, L. D. Ebel, G.D. **West Nile virus experimental evolution *in vivo* and the trade-off hypothesis**. 2011, PLoS Pathogens 7(11): e1002335.
<http://www.plospathogens.org/article/info:doi/10.1371/journal.ppat.1002335>
3. Ebel, G.D, Fitzpatrick, K. A., Lim Pei-Yin, Bennett, C., Deardorff, E.R., Jerzak, G., Kramer, L., Shi, P-Y., Zhou, Y., and Bernard, K. **Nonconsensus West Nile virus genomes arising during mosquito infection suppress pathogenesis and modulate virus fitness *in vivo***. 2011, Journal of Virology; Vol. 85, p. 12605-12613.
<http://jvi.asm.org/content/85/23/12605.full.pdf+html>
4. Brackney, D., Pesko, K., Brown, I.K., Deardorff, E. R., Kawatachi, J., Ebel, G.D. **West Nile virus genetic diversity is maintained during transmission by *Culex pipiens quinquefasciatus* mosquitoes**. 2011, PLoS One. 2011;6 (9):e24466. Epub 2011 Sep 12.
<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0024466>
5. 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.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2890239/?tool=pubmed>
6. 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.
www.ajtmh.org/cgi/content/full/82/6/1047
7. Deardorff, E.R., Forrester, N.L., Travasos 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.
www.ajtmh.org/cgi/content/full/82/2/350
8. 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.
www.plospathogens.org/article/info%3Adoi%2F10.1371%2Fjournal.ppat.1000467
9. Deardorff, E.R., Forrester, N.L., Travasos 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.
www.cdc.gov/eid/content/15/4/519.htm
10. 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.

www.ncbi.nlm.nih.gov/pmc/articles/PMC2574696/

11. 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. www.cdc.gov/ncidod/EID/vol12no02/05-0871.htm
12. 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. jvi.asm.org/cgi/content/full/79/22/14253

Professional References:

- Gregory Ebel, ScD. Colorado State University (970) 491-8374
- Scott Weaver, PhD. University of Texas Medical Branch (409) 266-6500
- Angela Wandinger-Ness, PhD. University of New Mexico (505) 272-1459
- Sherry Rogers, PhD. University of New Mexico (505) 272-5556
- Richard Calabro, M.S. Central New Mexico Community College (505) 224-3561