Curriculum Vitae

Lee F. Greer, Ph.D.

P. O. Box 39 Harlowton, MT 59036 United States of America Mobile: (951) 966-2042 lfgreer@gmail.com	*Experience*: Scientist / Consultant, University Professor / Lecturer / Instructor, Writer, Biotechnology Scientific Consultant, Educational Consultant, Non-Profit 501c3 Board Trustee / Board President, Outdoor Expedition Instructor

https://enlightenmentlegacy.net/ & **https://enlightenmentlegacy.net/cosmos/**.

SUMMARY / HIGHLIGHTS: Skills and experience include graduate education, researching and publishing as a scientist, serving as university professor / lecturer / student mentor, curriculum development in science and outdoor expeditions (lower grades), public speaking on topics of science and religion, educational and scientific consulting, serving as a scientific editor & editorial-writing.

EDUCATION: (Laudatory accolades inserted based on GPA).

- 2007 Ph.D. in Biology, Loma Linda University (Loma Linda, CA), *Summa Cum Laude*
  - Greer, L.F. 2006. *Hox targeting in vertebrate forelimb induction: Expression and comparative genomics*. Ph.D. dissertation. 356 pp.
  - Minor in Geology
- 1997 M.S. in Biology, Sul Ross State University (Alpine, TX), *Magna Cum Laude*
  - Greer, L.F. 1997. *Origins of polyploidy in* Thelesperma *(Asteraceae: Heliantheae, Coreopsidinae)*. M.S. thesis. 230 pp.
- 1988 B.A. in English & History, Southwestern Adventist University (Keene, TX), *Cum Laude*

ACADEMIC APPOINTMENTS:

- 2018-2024 Scientific Consultant, Phase3 Lab School (Redlands, CA)—Developed & implemented innovative, project-based learning in science and in outdoor expedition curricula.
- 2016-2018 Lecturer, Anthropology; Department of Anthropology, University of California (Riverside, CA)—Lectured on foundational and advanced biological and anthropological concepts in courses in anthropology; mentored students.
- 2012-2017 Associate Project Scientist, Department of Ecology and Evolutionary Biology, University of California (Irvine, CA)—Conducted research, including large computer analyses in the evolution and population genetics of longevity; served as a guest member of several graduate committees; mentored students.
- 2007-2012 Assistant Professor, Department of Biology, La Sierra University (Riverside, CA)—Taught lower and upper undergraduate biology courses; supervised / mentored undergraduate research; mentored students.
- 1994-1996 Graduate Teaching Assistant, Department of Biology, Sul Ross State University (Alpine, TX)—Taught General Zoology lab sections.

UNIVERSITY COURSES TAUGHT:

→ Department of Anthropology, University of California, Riverside (Spring Quarter, 2016 – Winter 2018):

- **Introduction to Biological Anthropology** (ANTH 002; 5 units).
- **Evolution of the Capacity for Culture** (ANTH 107; 4 units).
- **Evolution of the genus *Homo*** (ANTH 153; 4 units).

- **Evolution of the First Hominids** (ANTH 152; 4 units).
- **Methods in Biological Anthropology** (ANTH 154; 4 units)

→ Department of Biology, La Sierra University, Riverside (2007-2012):

- **Survey of Bioinformatics and Genomics** (BIOL 490; 4 units), a course I designed.
- **Systems Physiology** (BIOL 466; 4 units) & **Systems Physiology Lab** (BIOL 466L; 1 unit).
- **Developmental Biology** (BIOL 303; 4 units).
- **Biology Seminar** (BIOL 405; 2 units).
- **General Biology** (BIOL 111; 4 units).
- **Research in Biology** (BIOL 295; 495; 1-4 units): Supervising DNA systematics research lab.
- **Senior seminar** (UNST 404B; 3 units).

→ Courses I can teach (from interdisciplinary education across 3 degrees & teaching experiences):

- **Anthropology**—Physical / Biological Anthropology & Archaeology, Culture and Society, &c.
- **Art**—Introduction to Art History, Global Visual Culture.
- **Astronomy**—Introduction to Astronomy & Lab; Contemporary Theories in Cosmology.
- **Biology**—General Biology I-III & Labs, Principles of Living Systems & Labs, Principles of Biodiversity & Labs, Genetics, Cell Molecular Biology, Recombinant DNA Technology, Biostatistics, Phylogenetics / Phylogenetic Systematics, Developmental Biology, Field Research, DNA lab research.
- **Civics**—Introduction to Comparative Government, Introduction to American Government
- **Communications**—Introduction to Public Speaking.
- **Geography**—Introduction to Physical Geography & Labs, Human Geography, Geography of World Regions.
- **Geology**—Introduction to Physical Geology & Labs, Survey of Sedimentology, Paleontology.
- **History**—American History I & II, World History to 1500 CE, Modern World History, Western Civilization I & II, Ancient Greece, Enlightenment & Revolution, 1648-1815, Modern European History, American Intellectual Heritage (1620-1877) & (1877-Present), History of Science & Epistemology.
- **Literature**—Introduction to Literature, World Literature Survey, Survey of English Literature, Survey of American Literature, 18th century Literature, Literary Criticism, the Bible as Literature.
- **Philosophy**—Introduction to Ethics, Philosophies of Life, People & Polity, Studies in the History of Philosophy, Philosophy of Science, Great Figures and Ideas.
- **Religious Studies**—The Religious Quest, Greek and Roman Mythology, Mythology Around the World, Anthropology of Religious Traditions.
- **Writing**—College Writing I & II, Introduction to Technical Writing, Writing Scientific / Scholarly Papers, Grant Writing.

→ Graduate & Research Mentorship at La Sierra University (Riverside), University of California (Irvine), and University of California (Riverside)

- **Undergraduate Research / Theses** (LSU; UCR)—Lab practice, Data collection & analysis / statistic tests, writing Methods & Materials, Results, & Conclusions, Bibliographies & Literature Cited.
- **Master's Thesis / Doctoral Dissertation Supervision** (UCI)—Preparation for Oral & Written Exams, Research Grant / Doctoral research plan construction, Literature & Bibliography management, Review paper writing, Methods & Materials, Data collection & analyses / statistics, preparation for Academic committee meetings, Thesis & Dissertation writing, Scientific paper writing, Thesis & Dissertation defense preparation.

SCIENTIFIC / SCHOLARLY PUBLICATIONS:

- Walters J.W., **Greer L.F.** (2018). Evolving Moral Status. In Dominick A. DellaSala and Michael I. Goldstein (eds.) *The Encyclopedia of the Anthropocene*, **4**: 53-60. Oxford: Elsevier.
- **Greer, L.F.** (2017). Editorial: Genomics of experimental evolution. *Front. Genet*. https://doi.org/10.3389/fgene.2017.00093.
- Rose, M.R., Rutledge, G.A., Cabral, L.G., **Greer, L.F.**, Canfield, A.L., Cervantes, B.G. (2017). Evolution and the future of medicine. In Tibayrenc, M., Ayala, F.J. (eds.). *On Human Nature: Evolution, Diversity, Psychology, Ethics, Politics, and Religion*. London, UK: Academic Press, Elsevier.
- Rose, M.R., **Greer, L.F.**, Phung, K.H., Rutledge, G.A., Phillips, M.A., Anderson, C.N.K., Mueller, L.D. (2017). A new Hamiltonian demography of life history. In R. Shefferson *et al*. (eds.). *The Evolution of Senescence in the Tree of Life.* Cambridge, UK: Cambridge University Press.
- Graves, J.L., Jr., Hertweck, K.L., Phillips, M.A., Han, M.V., Cabral, L.G., Barter, T.T., **Greer, L.F.**, Burke, M.K., Mueller, L.D., Rose, M.R. (2017). Genomics of parallel experimental evolution in *Drosophila*. *Mol Biol Evol.* **34** (4): 831-842. doi: 10.1093/molbev/msw282.
- Phillips, M.A., Long, A.D., Greenspan, Z.S., **Greer, L.F.**, Burke, M.K., Villeponteau, B., Matsagas, K.C., Rizza, C.L., Mueller, L.D., Rose, M.R. (2016). Genome-wide analysis of long-term evolutionary domestication in *Drosophila melanogaster*. *Sci Rep*. **6**: 39281. doi: 10.1038/srep39281.
- **Greer, L.F.** 2015. Reclaiming Jesus: A historical and bibliographic note on what came before Trinitarian orthodoxy. *Journal of Biblical Unitarianism* **2** (2): 2-39. PDF.
- Rose, M.R., Cabral, L.G., Philips, M.A. Rutledge, G.A., Phung, K.H., Mueller, L.D., **Greer, L.F.** (2015). The great evolutionary divide: two genomic systems biologies of aging. In: Yashin AI, Jazwinski SM (eds): *Aging and Health – A Systems Biology Perspective. Interdiscipl Top Gerontol*, Basel, Karger, **40**: 63-73 (Epub 2014; doi: 10.1159/000364930).
- Rose, M.R., Rutledge, G.A., Phung, K.H., Phillips, M.A., **Greer, L.F.**, Mueller L.D. (2014). An evolutionary and genomic approach to challenges and opportunities for eliminating aging. *Current Aging Science*, **7**: 54-59.
- **Greer, L.F.** (2014). From theodicy to anthropodicy: A reflection on ... 'divine action and the argument from neglect.' PDF. (Chapter 3) *In* Walters, J., Clayton, P., Knapp, S. (eds.). 2014; [2020 hardcover], *Confronting the Predicament of Belief*. Eugene OR: Wipf and Stock.
- Loredo, A.I., Wood, P.L., Jr., Quah, E.S.H., Anuar, S., **Greer, L.F.**, Ahmad, N., Grismer, L.L. (2013). Cryptic speciation within *Asthenodipsas vertebralis* (Boulenger, 1900) (Squamata: Pareatidae), the description of a new species from Peninsular Malaysia, and the resurrection of *A. tropidonotus* (Lidth de Jude, 1923) from Sumatra: an integrative taxonomic analysis. *Zootaxa*, **3664** (4): 505-524.
- Rose, M.R., Flatt, T., Graves, J.L., **Greer, L.F.**, Martinez, D.E., Matos, M.M., Mueller, L.D., Shmookler Reis, R.J., and P. Shahrestani. (2012). What is aging? *Frontiers in Genetics*, **3**: 134. (doi: 10.3389/fgene.2012.00134).
- **Greer, L.F.** (2012). Aging: the fading signal of natural selection. *Frontiers in Genetics*, **3**: 155. (doi: 10.3389/fgene.2012.00155).
- Johnson, C.B., Quah, S.H.E., Anuar, S., Muin, M.A., Wood, P.L., Jr., Grismer, J.L., **Greer, L.F.**, Onn, C.K., Ahmad, N., Bauer, A.M., Grismer, L.L. (2012). Phylogeography, geographic variation, and taxonomy of the Bent-toed Gecko *Cyrtodactylus quadrivirgatus* Taylor, 1962 from Peninsular Malaysia with the description of a new swamp dwelling species. *Zootaxa*, **3406**: 39-58.
- Rose, M.R., Long, A.D., Mueller, L.D., Rizza, C.L., Matsagas, K.C., **Greer, L.F.**, Villeponteau,

B. (2010). Evolutionary nutrigenomics. Pp. 357-366 in *The Future of Aging* (G.M. Fahy, M.D. West, L.S. Coles, & S.B. Harris, Eds.); Berlin: Springer.

- Grismer, L.L., Onn, C.K., Quah, E., Muin, M.A., Savage, A.E., Grismer, J.L., Ahmad, N., **Greer, L.F.**, Remegio, A.C. (2010). Another new, diminutive Rock Gecko (*Cnemaspis* Strauch) from Peninsular Malaysia and a discussion of resource partitioning in sympatric species pairs. *Zootaxa,* **2569**: 55–66.
- Onn, C.K., Grismer, L.L., Anuar, S., Quah, E., Muin, M.A., Savage, A.E., Grismer, J.L., Ahmad, N., Remigio, A.C., **Greer, L.F.** (2010). A new endemic Rock Gecko *Cnemaspis* Strauch 1887 (Squamata: Gekkonidae) from Gunung Jerai, Kedah, northwestern peninsular Malaysia. *Zootaxa,* **2576**: 59–68.
- Pira, C.U., Caltharp, S.A., Kanaya, K., Manu, S.K., **Greer, L.F.**, Oberg, K.C. (2008). Identification of developmental enhancers using targeted regional electroporation (TREP) of evolutionarily conserved regions. In *Proceedings of the 15th International Symposium on Bioluminescence and Chemiluminescence 2008*, Kricka LJ, Stanley PE (eds). Chichester: Wiley. 13-17 May 2008, Shanghai, China.
- Oberg, K.C., **Greer, L.F.**, Naruse, T. 2004. Embryology of the upper limb: The molecular orchestration of morphogenesis. *Handchir Mikrochir Plastik Chir*, **36**: 1-10.
- **Greer, L.F.**, Szalay, A.A. (2002). Imaging of light emission from the expression of luciferases in living cells and organisms: a review. *Luminescence*, **17** (1): 43-74.
- **Greer, L.F.**, Wang, G., Goebel, W., Szalay, A.A. (2002). Visualization of intracellular bacterial infection in tumor cell lines. In Stanley, P.E., Kricka, L.J. (eds.), *Bioluminescence & Chemiluminescence: Progress & Current Applications*, pp. 357-360: 12th International Symposium on Bioluminescence and Chemiluminescence, 05-09 April 2002, Cambridge, England.
- **Greer, L.F.**, Powell, A.M. (1999). Chromosome numbers and pollen diameter variation in *Thelesperma* (Asteraceae). *SIDA*, **18** (3): 909-925.
- **Greer, L.F.** (1997). *Thelesperma curvicarpum* (Asteraceae), an achene form in populations of *T. filifolium* var. *filifolium* and *T. simplicifolium* var. *simplicifolium*. *The Southwestern Naturalist*, **42** (2): 242-244.

PAPERS in Preparation:

- Anderson, C.N.K., Garcia, M.M., Callan, A.I., Miller, M., Nance, R.E., Richardson, K., Reed, K.S., Bramlett, K.V., Clark, D.R., Richard, S., Geraty, L., Taylor, R.E., Fratpietro, S., **Greer, L.F.** On the molecular and physical anthropology and the archaeology of humans remains from an Early Bronze Age site and an Early Iron Age site in Jordan.
- Reed, K.S., Garcia, M.M., Callan, A.I., Richardson, K., Reed, K.S., Bramlett, K.V., Clark, D.R., Richard, S., Geraty, L., Taylor, R.E., **Greer, L.F.**, Williams, M. aDNA and the physical anthropology of a number of human skulls and bones from a 4,500 year old portal dolmen near Tall al ‘Umayri, Jordan—To be submitted upon completion of additional analyses.

GUEST EDITOR, *Frontiers in Genetics* (December, 2013-2017):

Served as one of the editors of a special volume on the *Genomics of Experimental Evolution*, and submitted the covering editorial in 2017: https://www.frontiersin.org/research-topics/2417/genomics-of-experimental-evolution.

SCIENTIFIC RESEARCH:

- 2016 – present—Ongoing research on aDNA from Early Iron Age and late Bronze Age human remains from Jordan, in collaboration with colleagues from several institutions.
- July 2012 – 2015—UC Irvine: Computer cluster genomic analyses, grant / proposal &

application writing, scientific paper preparation, major research plan formulation, graduate committee work, contributing to graduate seminar.

- Fall, 2008 – (esp. 2011-2012)—Genescient Corporation: Consulting on company founding, business plan formulation, and scientific advice on longevity.
- July 2007-June 2012—LSU: Supervising student research on systematics in a DNA lab.
- September 1998-May 2006—LLU: Ph.D. research in genomics and developmental biology.
- September 1994-May 1997—SRSU: Master's research in systematic botany, biogeography, & cytogenetics.

TECHNICAL EXPERIENCE: Anthropological biology, genomics analyst, phylogeneticist, molecular biologist, field biologist, professor / teaching, writer, editor, grant writing / fund raising for research.

Anthropological biology: Full genomic DNA extraction from human specimens, polymerase chain amplification of human mtDNA genes, and choice and preparation of ancient human bone fragments in preparation for aDNA extraction, sequencing, and analysis, as well as for ^{14}C dating. Portal Dolmen (Ancient Near East), reconstructing skulls, including jawbones, eye orbits, cranial fragments, ear bones, and other skeletal fragments, sorting and classifying in order to help conduct a minimum number of individuals (MNI) analysis, and in preparation for the application of statistical methods to quantifying the biometric diversity within cohorts of ancient remains.

Computer-based biology: Pooled sequence full genomic analysis including whole genome quality testing, indexing, alignment to reference construction, genome-wide calculation of allele frequencies, statistical tests of SNP differentiation, test of linkage disequilibrium in statistical differentiation files; DNA sequence assembly, annotation, and quality analysis; pairwise and multiple alignment; annotation and curation of ancient DNA (aDNA) sequence, including alignment assembly; nucleotide evolution model testing using Akaike information criteria (AIC) and Bayesian information criteria (BIC); phylogenetic analysis using neighbor-joining, maximum likelihood, Bayesian inference; detection of DNA under natural selection; identification of conserved non-coding regulatory regions, through percentage identity plotting (pip), and other methods like phylogenetic footprinting; genetic code prediction of metazoan mitochondrial DNA; elementary protein structure prediction (bioinformatics); RNA secondary structure prediction; identification of gene orthologs through parsimony, use of software involving prediction of genes, open reading frames, exons and introns, etc. in genomic sequence; some experience with Mathematica, R and Unix Shell, and running of Perl and Python scripts, and with the JMP statistical package.

Molecular biology / tissue culture: Genomic DNA purification and quantification; DNA amplification (PCR) and cloning; semi-quantitative PCR – gene expression profiling; RNA purification; cDNA generation from mRNA sampling; whole mount *in situ* hybridization (WISH) detection of specific mRNA expression; RNA probe generation; RNA transcription; human mtDNA PCR amplification and screening for genetic deletion polymorphism; human mitochondrial haplotyping of aDNA; mice surgical femoral artery inoculation, tumor implantation and measurement; mammalian cell culture; lipofection transfection of expression and other constructs into cell culture; imaging of light-emitting gene expression through fluorescent microscopy and bioluminescence; radioisotope labeling of nucleotide probes; scintillation counter assays of decontamination.

Field biology: Plant cytogenetics (meiotic chromosome staining, counting, configuration drawing

and micrography, and pollen microscopy); biogeography of plant cytotype populations relating to climate change from Pleistocene to Holocene times; herbarium collecting and archiving; scanning electron microscopy and micrography.

Field environmental sampling: Collection of environmental samples of soil, water, and building materials containing radioactive contaminants using field Geiger counter screens; collection and quantification of gamma ray energy spectra.

Writing / Review / Grants: Papers; editing of papers and grants; animal research protocol formulation; small grant writing; collaborator under an NIH grant application from Tufts University.

MENTORED UNDERGRADUATE STUDENT RESEARCH PRESENTATIONS:
These projects, with changes /or further analyses, were presented at the 2012 SCAS meetings at Occidental College, Pasadena, CA on 11 May 2012. The *Cyrtodactylus intermedius* poster tied for first place.

Mitochondrial phylogeography of the gecko genus *Cnemaspis*. By Ana Caroline Remigio, Rachel Salvador, Jennifer Burns, Neal Christopher, Jesse L. Grismer, L. Lee Grismer, Lee F. Greer	Southern California Academy of Sciences, California State Polytechnic University, Pomona (06 May 2011): Student presenter—Neal Christopher
Phylogeographic analysis of the speciation of *Cyrtodactylus intermedius* lizards. By Fawaz Tarzi, Rachel Salvador, Niraj Bhalani, Vian Tarzi, L. Lee Grismer, Lee F. Greer	Southern California Academy of Sciences, California State Polytechnic University, Pomona (06 May 2011): Student presenter—Fawaz Tarzi; La Sierra University Research Emphasis Week (01 June 2011): Student presenter—Fawaz Tarzi
Phylogenetic position of Pit Viper *Cryptelytrops honsonensis*. By Fawaz Tarzi, Ramona Bahnam, Perry Woods, Neal Christopher, Vian Tarzi, L. Lee Grismer, Lee F. Greer	Southern California Academy of Sciences, California State Polytechnic University, Pomona (06 May 2011): Student presenter—Fawaz Tarzi; La Sierra University Research Emphasis Week (01 June 2011): Student presenters—Vian Tarzi, Fawaz Tarzi
mtDNA phylogenetic haplogroups of human remains from ancient Near East site, Tall al 'Umayri (13th century BCE). By Ronald Nance II, Meagan Miller, Doug Clark, R. E. Taylor, L. F. Greer	Southern California Academy of Sciences, California State Polytechnic University, Pomona (06 May 2011): Student presenter—Ronald Nance II; La Sierra University Research Emphasis Week (01 June 2011): Student presenter—Ronald Nance II.
mtDNA phylogeny of SE Asian vine snake species of the colubrid genus *Ahaetulla*. By Caitlin Miller, Fawaz Tarzi, Jennifer Burns, Perry Wood, L. Lee Grismer, Lee F. Greer	La Sierra University Research Emphasis Week (01 June 2011): Student presenter—Caitlin Miller.

OTHER PRESENTATIONS AT SCIENTIFIC MEETINGS:

Greer LF, Phillips MA, Han M, Hertwecke K, Graves Jr. JL, Mueller LD, Rose MR. 2013. Maintenance of genome-wide polymorphism in replicated outbred populations of Drosophila melanogaster under directional selection regimes. Poster presentation, Society for Molecular Biology and Evolution meetings, July 2013, Chicago, IL.

Galloway N, **Greer LF**, Wall NR, *et al*. 2007. *Survivin* promoter is regulated by the stress-response transcription factors, HIF-1, p75/LEDGF, and YY1" April 2007. American Association of Cancer Researchers, Los Angeles, CA.

Greer LF, Oberg KC. 2006. "Potential Hox targets in forelimb initiation: Conserved homeodomain binding sites associated with *Tbx5*, *Sall1*, *Sall4*, and *Fgf10*." Poster presentation, 65th Annual Meeting of the Society for Developmental Biology, 17-21 June 2006: Ann Arbor, MI.

Greer LF, Talwar S, Oberg KC. 2006. Alignment of *HOXC5*, *C6*, and *C8* genes in the chicken genome: Dispersion of a vertebrate *Hox* cluster? FASEB meetings, 05-06 April 2006: San Francisco, CA.

Lam JK, **Greer LF**, Pira CU, Oberg KC. 2004. "Role of *HOXD8* in limb positioning and outgrowth." Poster, FASEB meetings, 17-21 April 2004: Washington, DC.

Greer LF, Pira CU, Oberg KC. 2004. "Expression of *HOXC5*, *C6*, and *C8* during forelimb specification and outgrowth. Poster, Keystone Symposium; Poster, FASEB meetings, 17-21 April 2004: Washington, DC.

_____. Poster, Loma Linda University, September 2004: Loma Linda, California

_____. Poster, Keystone Symposium, February-02 March 2004: Santa Fe, New Mexico.

_____. Poster, Annual Postgraduate Convention, Loma Linda University, 06-07 March 2004: Loma Linda, California.

Greer LF, Wang G, Goebel W, and Szalay AA. 2002. Visualization of intracellular bacterial infection in tumor cell lines. Poster, 12th International Symposium on Bioluminescence and Chemiluminescence, 05-09 April 2002, Cambridge University, Cambridge, England.

GRANT WRITING & FUNDING:

- Collaborator on a grant pre-proposal with Dr. Michael Rose, Dr. Larry Mueller (University of California, Irvine) and Dr. Joe Graves (North Carolina Agricultural & Technological State University) for a $1.1 million Keck Foundation grant to study the experimental evolutionary genomics of various physiological systems.
- Collaborator with Dr. Michael Rose, Dr. Larry Mueller (University of California, Irvine) and Dr. Joe Graves (North Carolina Agricultural & Technological State University) on a $500,000 Department of Defense grant application to study the experimental evolutionary genomics of stress.
- Collaborator under Dr. Doug Brugge (Tufts University, Boston, MA) on an NIH grant application for testing and study of radiation exposure in Tajikistan.
- Collaborator under Dr. Horace Crogman (Physics, La Sierra University) on an NSF interdisciplinary undergraduate research grant.
- Founded the DNA Sequencing & Genomics Lab special purpose fund, 2007-2011 – more than $30,000 in funds raised.
- LSU College of Arts & Sciences Grant, 2007-08, 2008-09, 2009-10, 2010-11 – $3,000 every year
- LI-COR Genomics Education Matching Grant, 2007 – toward the purchase of the LI-COR DNA Analyser – $37,500.00

SELECT SERVICE RECORD:

- Gave a lecture and demonstration of cosmic radiation to primary students at a Montessori called the Phase 3 School (Redlands, CA): 04 June 2018. Preparing Montessori-style curriculum clusters with activities for Middle School students organized around large questions such as "From where did Life come?" and "From where do we come?"
- Founding Trustee / Secretary, The Institute for Research on Trauma and Resilience (IRTR), since August 2017: Working on the right of return for Diné (Navajo) evictees, environmental justice and remediation for unremediated uranium-contaminated mines and mills, protection of the traditional way of life of Diné people in the western Navajo Nation, documentation of cultural sites, helping to govern the 501(c)3, fundraising by helping to display the work of indigenous artists, and working with my colleagues generally in IRTR to advocate for survivors and children of survivors of genocide, eugenics, war crimes, and other crimes against humanity and ecology.
- Trustee, Forgotten People, NGO working on Indigenous rights in the western Navajo Nation—2012-present.
- City of Riverside, CA: Scientific representative on the Riverside Mayor Rusty Bailey's Clean & Green Advisory Committee or Taskforce (advising on the Green Accountability Performance or GAP goals)—Fall, 2014.
- Trustee and Secretary, Board of Trustees, Friends Across the Line (http://www.friendsacrosstheline.org/), including working on Project Railroad (http://operationrailroad.org/)—2014-2016.
- City of Riverside, CA: LSU Academic representative on the Mayor Ron Loveridge's Clean & Green Advisory Committee or Taskforce (advising on the Green Accountability Performance or GAP goals, i.e., 38 action plan items adopted by the Riverside City Council in 2008, many of which have been met ahead of deadlines in our city)—2008-2012.
- Served as Trustee on the Board of the Universalist Unitarian Church of Riverside, http://www.uuchurchofriverside.org/ (501c3)—2012-2014.
- Faculty Sponsor to Project Pueblo (La Sierra University, Riverside, CA) student-directed volunteer 501c3 organization, working in the Navajo Nation—2009-2012.
- Assisted Forgotten Navajo People with collecting potentially radioactive samples from the vicinity of abandoned-uranium-mine-mill sites in the Navajo Nation, taking gamma energy spectra with equipment from the Department of Physics on both our samples and those collected by student Jarred Wheeler of Eastern Washington University.
- Joined Project Pueblo in the Navajo Nation (Arizona) to help the Forgotten People in September of 2010 to collect more samples and run gamma ray spectra. Presented our results at the Uranium Stakeholders' meeting in Tuba City, AZ on 15 September 2010: "Decolonizing the Navajo Nation: Using Grassroots Driven Development & Activism to Secure Environmental Justice" http://www.epa.gov/region9/superfund/navajo-nation/stakeholder.html; "EPA posts LSU scientist's uranium pollution presentation" http://www.lasierra.edu/index.php?id=6740)
- Also presented our work with Forgotten People representatives, Marsha Monestersky and Don Yellowman, at a special session on environmental refugees and the struggles faced by indigenous peoples all over the world facing environmental degradation from resource extraction interests at the annual meeting of the Geological Society of America in Denver (03 November 2010) and afterward at the First Unitarian Church in Denver. Our work has been covered in "Abandoned Uranium Mines: An 'Overwhelming Problem' in the Navajo Nation," published by *Scientific American* (http://www.scientificamerican.com/article.cfm?id=abandoned-uranium-mines-a#comments) and also *Science Line* (http://www.scienceline.org/2010/12/an-%E2%80%9Coverwhelming-problem%E2%80%9D-in-the-navajo-nation/).
- September 2010: "'Uranium rush' prompts Grand Canyon fears"

(http://www.bbc.co.uk/news/world-us-canada-11350744; where the reporter inadvertently misspelled my name Grier and had me at UCR rather than LSU).

- April 2012: Our work on uranium contamination has been referenced in an article in *The New York Times* (31 March 2012 online; 01 April print, Sunday edition, p. A16) "Uranium Mines dot Navajo land Neglected and still Perilous" http://www.nytimes.com/2012/04/01/us/uranium-mines-dot-navajo-land-neglected-and-still-perilous.html).
- In December 2010, we spent time in the Nation visiting sites and video-documenting oral histories of survivors of the Diné evictions from Wupatki National Monument ("Wupatki eviction survivors remember…." http://forgottennavajopeople.org/blog/?p=143; see http://projectpueblo.org/ and http://www.forgottennavajopeople.org/).
- Presented our work on uranium contamination in a seminar in the LSU Department of Physics (07 February 2011).
- During the last week of March 2011 (Spring Break), we returned with Project Pueblo to the Navajo Nation to continue gathering information on the Wupatki evictions as well as on cultural sites linking the Navajo to the ancient Anasazi peoples of the American Southwest. Collected materials for testing.
- Ran gamma ray spectra on materials collected from samples in the area.
- During the Spring Quarter (2011), a student worked with me in starting a draft of right-of-return legislation for Navajo evictees and their descendants to the Wupatki, in partnership with Marsha Monestersky and Anthony Davis (grandson of Stella Peshlakai). That draft is basically complete and ready to go to legal for final checks and supplementation before being submitted to the local US Representative for introduction in the US Congress.
- Had a student, Ashlee Sumilat, working on a small grant for the Forgotten People.
- Serve on the Board of Trustees for Forgotten People.
- Gave a lecture on biology and radiation to the Riverside Unified School District (RUSD) Science Technology Engineering and Math (STEM) Academy students, 6^{th}-7^{th} graders.

ORGANIZATIONS:

- American Anthropological Association
- American Association for the Advancement of Science
- Society for Molecular Biology and Evolution

REFERENCES:

Available upon request.