

Caleb D. Phillips – August 31, 2020

I. GENERAL INFORMATION

CONTACT INFORMATION

Texas Tech University
Department of Biological Sciences
Lubbock, Texas 79424
Phone: 806-834-8181
Email: caleb.phillips@ttu.edu

Google Scholar Link

<http://scholar.google.com/citations?user=kCqavJ0AAAAJ&hl=en>

TTU Biology Link

<https://www.depts.ttu.edu/biology/people/Faculty/phillipscaleb/>

TTU NSRL Link

http://www.depts.ttu.edu/nsrl/directory/faculty_curators/bio/caleb-phillips.php

EDUCATION

Ph.D. in Genetics- 2009 Purdue University
Department of Forestry and Natural Resources, advised by John W. Bickham

M.S. in Biology- 2006 Tarleton State University
Department of Biological Sciences, advised by Russell S. Pfau

B.S. in Biology- 2003 Tarleton State University
Department of Biological Sciences

CURRENT ACADEMIC POSITIONS

Assistant Professor, Department of Biological Sciences
Texas Tech University, Lubbock, Tx, 79409

Curator of Genetic Resources Collection, Natural Science Research Laboratory
Museum of Texas Tech University, Lubbock, TX, 79409

PRIOR POSITIONS

1. Adjunct Faculty (2014-2015)
Department of Biological Sciences, Texas Tech University, Lubbock, Tx, 79409
2. Principal Scientist (2014-2015)
Bioinformatics Team, Research and Testing Laboratory, Lubbock, TX, 79407
3. Postdoctoral Fellow (2009-2014)
Department of Biological Sciences, Texas Tech University, Lubbock, TX 79409
4. Research Assistant (2006-2009)
Center for the Environment, Purdue University, West Lafayette, IN 47904
5. Genetics Laboratory Technician (2006)

Biology Department, Tarleton State University, Stephenville, TX 76042

6. Graduate Assistant (2003-2006)

Biology Department, Tarleton State University, Stephenville, TX 76042

7. Laboratory Technician (2001-2003)

Pioneer Dairy Laboratory, Stephenville, TX 76041

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

1. American Society of Mammalogists - Life Member - Systematic Collections Committee Member
2. Texas Genetics Society - Member - Board of Directors (2017 -) - President (2019 - 2020)
3. Texas Society of Mammalogists - Patron Member
4. Society for Craniofacial Genetics and Developmental Biology - Member

II. TEACHING

TEACHING AWARDS

1. Mortar Board and Omnicron Delta Kappa Faculty Teaching Recognition Award- January 2017

PEDAGOGICAL ACCOMPLISHMENTS

Dr. Phillips currently teaches three courses at TTU. He teaches Organic Evolution which is a primarily undergraduate large-enrollment departmental requirement. His other two course offerings consist of Metagenomic Analysis and Bioinformatics, both primarily offered at the graduate level. The formal definitions of these graduate courses in the course catalog are a result of Dr. Phillips' efforts. For both of these courses Dr. Phillips has developed the original course content with integrated html training tutorials. Dr. Phillips consistently receives high enrollment numbers and above average evaluations on course and teaching performance.

SCHOLARSHIP OF TEACHING AND LEARNING

1. September 2015- "How to put your course online" hosted by Texas Tech Teaching and Learning Center

RESEARCH MENTORING

CHAIR OF DOCTORAL COMMITTEES

1. Howard Huynh, **Completed Fall 2018**
"Taxonomic delimitation and natural history of some mammals from Atlantic Canada"
Texas Tech University, Biological Sciences
2. Craig Tipton
"The chronic wound microbiome: complex communities shaped by microbial interaction and environmental selection"
Texas Tech University, Biological Sciences

3. Matthew Fox
"Musashi2 as a regulator of the development palate"
Texas Tech University, Biological Sciences
4. Hendra Sihaloho
"Bat microbiome assembly and disassembly across a habitat degradation gradient"
Texas Tech University, Biological Sciences

MEMBER OF DOCTORAL COMMITTEES

1. Laramie Lindsey, **Completed Spring 2020**
"Genomic applications to examine patterns of diversification in deer mice (Rodentia: Cricetidae: *Peromyscus*)"
Texas Tech University, Biological Sciences
2. Emma Roberts, **Completed Spring 2020**
"Molecular evolution and phylogenetic importance of a gamete recognition gene Zan reveals a unique contribution to mammalian speciation." Texas Tech University, Biological Sciences
3. Jeremy Wilkinson, **Completed Spring 2016**
"Salinity drives commensal and free-living bacterial community structures: examination of the microbial communities of fish, water, and sediment along salinity gradients in two tributaries of the Chesapeake Bay"
Texas Tech University, The Institute of Environmental and Human Health
4. Arnab Ghosh, **Completed Spring 2017**
"Gene annotation and small RNA characterization in the salt water crocodile: *Crocodylus porosus*"
Texas Tech University, Biological Sciences
5. Kelsey Thompson, **Completed Spring 2018**
"In Search of Biomarkers of Acid Rock Drainage: Assessment of the Impact of Mining Activities and Remediation on Microbial Communities in Fresh and Brackish Water Ecosystems"
Texas Tech University, The Institute of Environmental and Human Health
6. Jaspreet Kaur, **Completed Spring 2018**
"Explaining the dynamics of rare plant populations by coupling climatic, edaphic and microbial constraints"
Texas Tech University, Plant and Soil Sciences
7. Meijun Dong, **Completed Spring 2019**
"Soil microbial community resistance and resilience to biodiesels vs. petroleum diesel "
Texas Tech University, Biological Sciences
8. Ai Katazumi, **Completed Spring 2019**
"Genomic and epigenomic basis of transgressive segregation in rice"
Texas Tech University, Plant and Soil Sciences
9. Moamen Elmassry, **Completed Spring 2019**
"Pathogenesis of *Pseudomonas aeruginosa* during bacteremia: influence of trauma"
Texas Tech University, Health Sciences Center, Biological Sciences
10. Amin Ferdous
"Population Dynamics of Rhizobia: a Step towards Sustainable Agriculture for West Texas"
Texas Tech University, Biological Sciences

11. Redman Whitney
"Assessing the Utility, Safety, and Host Response to Biofilm Dispersal"
Texas Tech University Health Sciences Center
12. Michael Pinasci
"A genetic survey of Canis in southwestern North America and monitoring for hybridization among free-ranging Mexican wolves, coyotes, and dogs"
Texas Tech University, Natural Resources Management
13. Anisha Navlekar
"A Multi-Omics Approach to Understanding Microbial Degradation of Polystyrene and Polyethylene by Tenebrio molitor and Plodia interpunctella larvae"
Texas Tech University, Biological Sciences
14. Austin Osmanski
"working title: "Genomic distribution of transposable elements across phylogeny"
Texas Tech University, Biological Sciences
15. Kevin Sullivan
"A comprehensive annotation and utilization of TEs in the genus Peromyscus"
Texas Tech University, Biological Sciences
16. Iroro Tanshi
"Bat species richness pattern and assemblage structure along elevational gradients in southeastern Nigeria"
Texas Tech University, Biological Sciences
17. Saba Nafees
"Application of Multivariate Tensor-based Orthogonal Polynomials to Biological Sequences"
Texas Tech University, Biological Sciences
18. Jordan Brown
working title: "Microbiomes in urban landscapes"
Texas Tech University, Biological Sciences
19. Mark Lee
"Phylogeography and Environmental Niche Modelling of Texas Copperheads"
Texas Tech University, Biological Sciences
20. Caroline Schuster
"Investigating the Anti-Cancer Effects of Mitochondrial Function Disruption By Aretigenin, Chlorogenic Acid, and Cinnamaldehyde Alone or in Combination on Breast Cancer Cells"
Texas Tech University, Biological Sciences
21. Jack Hruska
working title: "Phylogeography of bird species in Central America inferred from genome sequences"
Texas Tech University, Biological Sciences
22. Swarupa Mandal
working title pending
Texas Tech University, Biological Sciences
23. Danton Shoemaker
working title pending
Texas Tech University, Biological Sciences
24. Victoria Youngblood
working title pending
University of North Texas, Biological Sciences

CHAIR OF MASTERS COMMITTEES

1. Oscar Sandate, **Completed Summer 2019**
"Determinants of digestive efficiency during reproduction in a highly vagile colonial bat"
Texas Tech University, Biological Sciences
2. Preston McDonald, **Completed Spring 2020**
"Status, Distribution, Morphology and Genetics of *Sigmodon fulviventer dalquesti* in the Chihuahuan Desert Ecoregion"
Texas Tech University, Biological Sciences
3. Rachael Wiedmeier
"Bacteria to Bighorn: Health and microbiomes of desert bighorn sheep in Texas"
Texas Tech University, Biological Sciences
4. Megan Rowe
"The Genomic Distribution of Musashi-binding Elements"
Texas Tech University, Biological Sciences

MEMBER OF MASTERS COMMITTEES

1. Nicole Paulat, **Completed Spring 2020**
"Examining transposable elements in *Myotis*: distributions and associated mutations."
Texas Tech University, Biological Sciences
2. Beth Rogers, **Completed Spring 2018**
"Seasonal Flexibility in Lipid Metabolism in Brazilian Free-tailed Bats"
Texas Tech University, Biological Sciences
3. Taylor Soniat, **Completed Spring 2019**
"Assessing Levels of DNA Degradation in Frozen Tissues Archived in a Natural History Collection"
Texas Tech University, Biological Sciences
4. Bravada Hill, **Completed Spring 2019**
"Novel HiC Modification to Study Biofilms in Polymicrobial Infections"
Texas Tech University, Biological Sciences
5. Laura Blanco-Berdugo, **Completed Spring 2018**
"Exploring the TE landscape of elephant shark and CR1 accumulation, evolution, and effects of selection in the class Chondrichthyes"
Texas Tech University, Biological Sciences
6. Amie Sommers, **Completed Spring 2017**
"Phenotypic Flexibility and Energy Demand: Continuous Organismal Response Through the Summer Season"
Texas Tech University, Biological Sciences
7. Christopher Dunn, **Completed Spring 2016**
"Genetic Diversity and the Possible Origin of Contemporary Elk (*Cervus canadensis*) Populations in the Trans-Pecos Region of Texas"
Texas Tech University, Biological Sciences
8. Heidi Stevens
working title: "Rates of DNA degradation as a function of exposure to ambient temperature over time"
Texas Tech University, The Museum

9. Arrin Canales
"Establishing an agricultural origin of soils from shoes using a soil microbial approach"
Texas Tech University, TIEHH

UNDERGRADUATE MENTORING

1. Jake Ancira
"Biostatistical analysis training"
Texas Tech University Biological Sciences
2. Mark Wagner
"Biostatistical analysis training"
Texas Tech University Biological Sciences
3. Nadine Marshall, **Completed lab experience in 2019**
"Mouse colony work experiences"
Texas Tech University Biological Sciences
4. Raelynn Robinson, **Graduated Spring 2016**
"Mouse colony work experiences"
Texas Tech University Biological Sciences
5. Gregory Knox; TTU CISER Scholar, **Graduated Spring 2018**
"Histological and molecular training"
Texas Tech University Biological Sciences
6. Marilyn Mathew, Honors Student, **Graduated Spring 2016**
"Analysis and molecular lab work training"
Texas Tech University Biological Sciences

III. RESEARCH

PUBLICATIONS

ARTICLES (REFEREED)

First listed author indicates lead author, last author indicates senior directing author, and middle authors are in no particular order. Trailing numbers in parentheses are self-reported percentage effort by Dr. Phillips followed by journal quartile ranking as reported <https://www.scimagojr.com/journalrank.php?type=j>.

1. VANDEWEGE M, CAIO C, **PHILLIPS CD** (in press) Positive selection on secretory and structural components of salivary glands within the ecologically diverse bat family Phyllostomidae. *Genome Biology and Evolution* (40, Q1)
2. TIPTON CD, WOLCOTT RD, SANFORD NE, MILLER C, PATHAK G, SILZER TK, SUN J, FLEMING D, RUMBAUGH KP, LITTLE TD, PHILLIPS N, **PHILLIPS CD** (2020) Patient genetics is linked to chronic wound microbiome composition and healing, *PLoS Pathogens*, journal.ppat.1008511 (60, Q1)
3. LINDSEY LL, PLATT RN, **PHILLIPS CD**, RAY DA, BRADLEY RD (2020) Differential Expression in Testis and Liver Transcriptomes from Four Species of *Peromyscus* (Rodentia: Cricetidae), *Genome Biology and Evolution*, . 12(1):3698–3709. doi:10.1093/gbe/evz280 (20, Q1)

4. TIPTON CD, SANFORD NE, EVERETT JA, GABRILSKA RA, WOLCOTT RD, RUMBAUGH KP, **PHILLIPS CD** (2019) Chronic wound microbiome colonization on mouse model following cryogenic preservation. *PLoS One*, 14(8): e0221565. (40, Q1)
5. **PHILLIPS CD**, DUNNUM JL, DOWLER RC, BRADLEY LC, GARNER HJ, MACDONALD KA, LIM BK, REVELEZ MA, CAMPBELL ML, LUTZ HL, ORDÓÑEZ GARZA N, COOK JA, BRADLEY RD, AND THE SYSTEMATIC COLLECTIONS COMMITTEE OF THE AMERICAN SOCIETY OF MAMMALOGISTS (2019). Curatorial guidelines and standards of the American Society of Mammalogists for collections of genetic resources. *Journal of Mammalogy*, 100(5): 1690–1694. (60, Q1-Q2)
6. KOHL KD, OAKESON KF, ORR TJ, MILLER AW, FORBEY JS, **PHILLIPS CD**, DALE C, WEISS RB, DEARING MD (2018) Metagenomic sequencing provides insights into microbial detoxification in the guts of small mammalian herbivores (*Neotoma* spp.). *FEMS Microbiology Ecology*, 92(12), <https://doi.org/10.1093/femsec/fiy184>. (15, Q1)
7. MONTERO BK, SAGOT M, **PHILLIPS CD**, BAKER RJ, GILLAM EH (2018) Geographic variation of contact calls suggest distinct modes of vocal transmission in a leaf-roosting bat. *Behavioral Ecology and Sociobiology*, 72:125. (10, Q1)
8. DUNN CD, MAULDIN MR, WAGLEY ME, WILKINSON JE, **PHILLIPS CD**, BRADLEY RD (2017) Genetic diversity and the possible origin of contemporary elk (*Cervus canadensis*) populations in the Trans-Pecos region of Texas. *Occasional Papers of the Museum of Texas Tech University*, No. 350. (10, not listed)
9. TIPTON CD, MATHEW ME, WOLCOTT RA, WOLCOTT RD, KINGSTON T, **PHILLIPS CD** (2017) Temporal dynamics of relative abundances and bacterial succession in chronic wound communities. *Wound Repair and Regeneration*, DOI: 10.1111/wrr.12555. (50, Q1)
10. **PHILLIPS CD**, HANSON JD, WILKINSON J, KOENIG L, REES E, WEBALA P, KINGSTON T (2017) Microbiome Structural and Functional Interactions across Host Dietary Niche Space. *Integrative and Comparative Biology*, DOI: 10.1093/icb/ix011. (60, Q1)
11. KUSHAK RI, WINTER HS, BUIE TM, COX SB, **PHILLIPS CD**, WARD NL (2017) Analysis of the duodenal microbiome in autistic individuals: associations with carbohydrate digestions. *Journal of Pediatric Gastroenterology, & Nutrition*. 64:110-116. (15, Q1)
12. BAKER RJ, DICKINS B, WICKLIFFE JK, KHAN FA, GASCHAK S, MAKOVA K, **PHILLIPS CD** (2017) Elevated mitochondrial genome variation after 50 generations of radiation exposure in a wild rodent. *Evolutionary Applications*, DOI: 10.1111/eva.12475. (50, Q1)
13. ROWAN N, WANG EW, KANAAN A, SAHU N, WILLIAMS JV, **PHILLIPS CD**, LEE, S (2017) Respiratory Viral Detection in the Paranasal Sinuses of Patients with Cystic Fibrosis. *American Journal of Rhinology and Allergy*, 31:105-108. (15, Q2)
14. LARSEN RJ, LARSEN PA, **PHILLIPS CD**, GENOWAYS HH, KWIECINSKI GG, PEDERSEN SC, PHILLIPS CJ, BAKER RJ (2017) Patterns of Morphological and Molecular Evolution in the Antillean Tree Bat, *Ardops nichollsi* (Chiroptera: Phyllostomidae). *Occasional Papers Museum Texas Tech University*, No. 345. (10, not listed)
15. WOLCOTT RD, HANSON JD, REES E, KOENIG L, **PHILLIPS CD**, WOLCOTT R, COX SB, WHITE J (2016) Analysis of the Chronic Wound Microbiota of 2963 Patients by 16S rDNA Pyrosequencing. *Wound Repair and Regeneration*, DOI:10.1111/wrr.12370. (35, Q1)
16. WARD NL, **PHILLIPS CD**, NGUYEN D, SHANMUGAM NKN, SONG Y, HODIN R, SHI HN, CHERAYIL BJ, GOLDSTEIN AM (2016) Antibiotic treatment induces long-lasting changes in the fecal microbiota that protect against colitis. *Inflammatory Bowel Diseases*, 10:2328-2340. (15, Q1)

17. SAGOT M, **PHILLIPS CD**, BAKER RJ, STEVENS, R (2016) Human-modified habitats change patterns of population genetic structure and group cohesion in Peters tent-roosting bats. *Ecology and Evolution*, doi: 10.1002/ece3.2255. (10, Q1)
18. KONSTANTINOS EP, WARD NL, **PHILLIPS CD**, TESHAGER A, PATEL P, MOHAMED MMR, HAKIMIAN S, COX SB, AHMED R, MOAVEN O, KALIANNAN K, ALAM SN, HALLER JF, GOLDSTEIN AM, BHAN AK, MALO MS, HODIN RA (2016) Prevention of antibiotic-associated metabolic syndrome in mice by intestinal alkaline phosphatase. *Diabetes, Obesity and Metabolism*, DOI: 10.1111/dom.12645 (15, Q1)
19. **PHILLIPS CD**, BAKER RJ (2015) Gene Recruitment by Alternative Splicing Underlies Vampire Bat Salivary Adaptations and Convergences with Sanguivorous Leeches, *Frontiers in Ecology and Evolution*, DOI:10.3389/fevo.2015.00122 (75, Q1)
20. MCDONOUGH MM, UMBERA R, MAZUCH V, FERGUSON AW, **PHILLIPS CD**, BRYJA J (2015) Multilocus phylogeography of a widespread savanna-woodland adapted rodent reveals the influence of Pleistocene geomorphology and climate change in Africa's Zambezi region. *Molecular Ecology*, 24:5248-5266. (15, Q1)
21. ROWAN, N, LEE S, SAHO N, KANAAN A, COX SB, **PHILLIPS CD**, WANG E (2015) The role of viruses in the clinical presentation of chronic rhinosinusitis. *International Forum of Allergy and Rhinology*, 29(6):197-200. (15, Q1-Q2)
22. THOMAS J, **PHILLIPS CD**, BAKER RJ, PRITHAM EJ (2014) Rolling-circle transposons catalyze genomic innovation in a mammalian lineage. *Genome Biology and Evolution*, 6, 2595-2610. (15, Q1)
23. KLIMOVA A, **PHILLIPS CD**, FIETZ K, OLSEN M, HARWOOD J, AMOS W, HOFFMAN J (2014) Global population structure and demographic history of the grey seal. *Molecular Ecology*, 16, 3999-4017. (30, Q1)
24. PHILLIPS CJ, **PHILLIPS CD**, GOECKS J, LESSA EP, SOTERO-CAIO CG, TANDLER B, GANNON MR, BAKER RJ (2014) Dietary and fight energetic adaptations in a salivary gland transcriptome of an insectivorous bat. *PLoS One*, e83512. (30, Q1)
25. KHAN FAA, **PHILLIPS CD**, BAKER RJ (2014) Timeframes of speciation, reticulation, and hybridization in the Bulldog bat explained through phylogenetic analysis of all genetic transmission elements. *Systematic Biology*, 63, 96-110. (40, Q1)
26. SAGOT M, **PHILLIPS CD**, STEVENS RD, BAKER RJ (2013) Development and characterization of seventeen microsatellite loci for the Peters tent-roosting bat (*Uroderma bilobatum*). *Conservation Genetics Resources*, DOI 10.1007. (30, Q3-Q4)
27. **PHILLIPS CD**, BUTLER B, FONDON JW, MANTILLA-MELUK H, BAKER RJ (2013) Contrasting evolutionary dynamics of the developmental regulator PAX9, among bats, with evidence for a novel post-transcriptional regulatory mechanism. *PLoS One*, e57649. (70, Q1)
28. **PHILLIPS CD**, HOFFMAN JI, GEORGE JC, SUYDAM RS, HUEBINGER RM, PATTON JC, BICKHAM JW (2012) Molecular insights into the historical demography of bowhead whales: understanding the evolutionary basis of contemporary management practices. *Ecology and Evolution*, doi: 10.1002/ece3.374 (60, Q1)
29. **PHILLIPS CD**, PHELAN G, DOWD SE, MCDONOUGH MM, FERGUSON AW, HANSON JD, SILES L, ORDONEZ-GARZA N, SANFRANCISCO M, BAKER RJ (2012) Microbiome analysis among bats describes influences of host phylogeny, life history, physiology and geography. *Molecular Ecology*, 11, 2617-2627. (60, Q1)
30. HOFFMAN JI, GRANT SM, FORCADA J, **PHILLIPS CD** (2011) Bayesian inference of historical bottleneck in a heavily exploited marine mammal. *Molecular Ecology*, Q1, 20, 3989-4008. (50)

31. **PHILLIPS CD**, GELATT TS, PATTON JC, BICKHAM JW (2011) Phylogeography of Steller sea lions: relationships among climate change, effective population size, and genetic diversity. *Journal of Mammalogy*. 92, 1091-1104. (60, Q1-Q2)
32. HOFFMAN JI, DASMAHAPATRA KK, AMOS W, **PHILLIPS CD**, GELATT TS, BICKHAM JW (2009) Contrasting patterns of genetic diversity at three different genetic markers in a marine mammal metapopulation. *Molecular Ecology*, 18, 2961-2978. (25, Q1)
33. **PHILLIPS CD**, PATTON JC, TRUJILLO R, GELATT TS, BICKHAM JW (2009) Assessing patterns, rates, and homoplasy at HVRI in Steller sea lions, *Eumetopias jubatus*. *Molecular Ecology*, 18, 3379-3393. (60, Q1)
34. **PHILLIPS CD**, BICKHAM JW, PATTON JC, GELATT TS (2009) Systematics of Steller sea lions (*Eumetopias jubatus*): subspecies recognition based on concordance of genetics and morphometrics. *Occasional Papers of the Museum of Texas Tech University*, 283. (60, not listed)
35. **PHILLIPS CD**, HENARD CA, PFAU RS (2007) Amplified Fragment Length Polymorphism and mtDNA analyses reveal patterns of divergence and hybridization in the cotton rat, *Sigmodon hispidus*. *Journal of Mammalogy*, 88, 351-359. (60, Q1-Q2)

NON PEER-REVIEWED PUBLICATIONS

1. Webb CVR, Koboziev I, Furr KL, **PHILLIPS CD**, Kottapalli KR, Ostanin DV, Bakkar HC, Grisham MB (2016) Intestinal bacterial composition of lymphopenic mice and susceptibility to CD45RBhigh T cell-induced colitis. *The Journal of Immunology*, 196:188.10. *Published Conference Abstract* (10)
2. **PHILLIPS CD** (2015) Life history, ecology, and status of fur seals and sea lions of Australia and New Zealand. (Book Review of *Fur Seals and Sea Lions*, By Roger Kirkwood and Simon Goldsworthy; CSIRO Publishing) *Journal of Mammalian Evolution*, 22(4):597-597. *book review* (100)

MANUSCRIPTS CURRENTLY SUBMITTED

1. Kaur J, **PHILLIPS CD**, SHARMA J (preparing revision) Orchid demography is linked to mycorrhizal fungal communities in roots and soil, which are shaped by soil chemistry and microclimate. *Mycorrhiza* (20)

SOFTWARE

1. PHILLIPS CD (2016) FunkyTax: an R package for characterizing taxonomic and functional relationships among microbiome communities. www.github.com/genotyper/FunkyTax (100)

PROFESSIONAL PRESENTATIONS

An '' indicates a student-led presentation.*

1. Universiti Kebangsaan Malaysia
Faculty Seminar Series, August 14, 2018
"Eco-evolutionary Determinants of Microbiome Composition"
2. American Society of Mammalogists
Symposium Organizer, June 22, 2017
"Addressing Consequential Questions in Mammalogy Using Genomics"

3. Society for Integrative and Comparative Biology
Microbiome Workshop, January 6, 2017
"Metagenomic Challenges and Approaches"
4. Society for Integrative and Comparative Biology
Metagenomics Symposium, January 6, 2017
"Microbiome Structural and Functional Interactions Across Bat Dietary Niche Space"
5. Texas Tech University
Department of Biological Sciences, Undergraduate Introduction to Biology, April 12 2016
"Genomics of Mammalian Adaptation"
6. University of New Mexico
Department of Biology Seminar Series, October 2015
"Genome Evolution and Adaptations for Dietary Success"
7. American Society of Mammalogy
Recent Advances in Mammalogy Symposium, June 2014
"Bat Salivary Gland Transcriptomes and Inferences on Adaptation"
8. Department of Immunology and Molecular Microbiology
Texas Tech University Health Sciences Center, February 2014
"Recruitment of alternative splicing in the remarkable evolution of vampire bats"
9. University of Texas at Arlington
Genome Biology Group Seminar Series, October 2012
"A model for Musashi-mediated translational regulation in development and morphological evolution"
10. * Craig Tipton, Caleb Phillips. Chronic Wound Microbiome Colonization on Mouse Model Following Cryogenic Preservation.
Texas Genetics Society, April 2019.
11. * Preston McDonald, Caleb Phillips. Status, Distribution, Morphology and Genetics Of Sigmodon fulviventer dalquesti in the Chihuahuan Desert Ecoregion.
Texas Society of Mammalogists, February 2019.
12. * Laramie Lindsay, Caleb Phillips, Robert Bradley. A Phylogenomic Approach to Examining Relationships within Peromyscus.
Texas Society of Mammalogists, February 2019.
13. * Taylor Soniat, Caleb Phillips, Robert Bradley. Do Storage Temperatures Affect DNA Quality of Samples in Genetic Resource Collections?.
Texas Society of Mammalogists, February 2019.
14. * Oscar Sandate, Caleb Phillips. Gut-Microbiome and Digestive Efficiency Dynamics Throughout Reproduction in the Mexican Free-Tailed Bat, Tadarida brasiliensis.
Texas Society of Mammalogists, February 2019.
15. * Emily Wright, Caleb Phillips, Warren Conway, Robert Bradley. Using Genomics to Characterize Population Structure, Connectivity, Genetic Variation, and Health of Desert Bighorn Sheep in Texas.
Texas Society of Mammalogists, February 2019.
16. * Saba Nefees, Caleb Phillips, Sean Rice. Curating Large-scale Genomic Data Using Tensor-based Orthogonal Polynomials.
Nineth ACM Conference on Bioinformatics. August 29, 2018.
17. * Kelsey Thompson , Caleb Phillips, Greg Mayer. Spatial and Temporal Shifts in Sediment Bacterial Composition Affected by a Concentration Gradient of Acidic Rock Drainage in the Animas River

Watershed.

Society of Environmental Toxicology and Chemistry, Summer 2018. Oral Presentation.

18. * Craig Tipton, Phillips Caleb. Chronic Wound Microbiome Colonization on Mouse Model Following Cryogenic Preservation.
Texas Tech University Health Sciences Center BCORE. 22 February 2018. Oral Presentation.
19. * Oscar Sandate, Phillips Caleb. Gut-microbiome dynamics throughout reproduction in the Mexican free-tailed bat, *Tadarida brasiliensis*.
Texas Society of Mammalogist, Junction, Texas. 16-18 February 2018. Oral Presentation.
20. * McDonald Preston, Phillips Caleb. Status, Distribution, Morphology and Genetics Of *Sigmodon fulviventer dalquesti* in the Chihuahuan Desert Ecoregion.
Texas Society of Mammalogist, Junction, Texas. 16-18 February 2018. Poster Presentation.
21. * Vandewege Mike, Phillips Caleb. Identifying the genetic adaptations of salivary glands within Phyllostomidae.
Society for Molecular Biology and Evolution Annual Meeting, 2017.
22. * Lindsey Laramie, Platt Neal, Phillips Caleb, Ray David, Bradley Robert. Evaluating the Lineage diversification of *Peromyscus* using a phylogenomic approach.
8th Texas Tech Annual Biological Science Symposium Meeting. April 8th, 2017.
Second Place Oral Presentation in Evolutionary Biology Category.
23. * Soniat Taylor, Phillips Caleb, MacDonald Kathy, Wilkinson Jeremy, Bradley Robert. Assessing levels of DNA and RNA degradation in frozen tissues archived in natural history collections.
8th Texas Tech Annual Biological Science Symposium Meeting. April 8th, 2017. First place for Oral Presentation in the category of Museum Science.
24. * Francis James, Platt Roy, Phillips C, Bradley Robert. Resolving the Phylogenetic variation in *Peromyscus maniculatus*; Possible evidence for multiple species.
8th Texas Tech Annual Biological Science Symposium Meeting. 2017. Oral Presentation. April 8th, 2017.
25. * Mathew, Marilyn, Tipton Craig, Wolcott Randy, Wolcott Rick, Kingston Tigga, Phillips Caleb, Temporal community variance and relative abundance of chronic wound microbiota.
CALUE Undergraduate Research Conference, 28-29 March, 2017. Poster Presentation.
26. * Knox Gregory, Sandate Oscar, Mathew Marilyn, Tipton Craig, Fox Matthew, Phillips Caleb, Microbiome and physiological responses to pregnancy.
CALUE Undergraduate Research Conference, 28-29 March, 2017. Poster Presentation.
27. * Lindsey Laramie, Platt Neal, Ray David, Phillips Caleb, Bradley Robert. The lineage diversification of *Peromyscus*: evidence from a transcriptomic dataset.
Texas Society of Mammalogist, Junction, Texas. 10-12 February 2017. Oral Presentation.
28. * Sandate Oscar, Matthew Fox, Gregory Knox, Marilyn Mathew, Craig Tipton, Caleb Phillips. Gut microbiome analysis during pregnancy in *Tadarida brasiliensis*.
Texas Society of Mammalogist, Junction, Texas. 10-12 February 2017. Poster Presentation.
Clyde Jones Award: Best Poster Presentation by a Graduate Student in Mammalian Systematics, Molecular Biology and Evolution
29. * Soniat Taylor, Phillips Caleb, MacDonald Kathy, Wilkinson Jeremy, Bradley Robert. Assessing levels of DNA and RNA degradation in frozen museum tissues.
Texas Society of Mammalogist, Junction, Texas. 10-12 February 2017. Poster Presentation.
30. * Francis James, Platt Neal, Phillips Caleb, Bradley Robert. Resolving the phylogeography and phylogenetic variation in *Peromyscus maniculatus* based on Cytochrome-b.
Texas Society of Mammalogist, Junction, Texas. 10-12 February 2017. Oral Presentation.

31. * Wilkinson Jeremy, Hanson John, Phillips Caleb, Wages M, Rees Eric, Mayer Greg. Effects of two polyphenols on the gut microbiome and associated weight gain in mice.
7th Texas Tech Annual Biological Sciences Symposium. Texas Tech University, Lubbock, Texas. 1-2 April 2016.
Second Place, Oral Category, Microbiology Section.
32. * Lindsey Laramie, Platt Neal, Ray David, Phillips Caleb, Bradley Robert. Addressing the adaptive radiation in *Peromyscus* using transcriptome data. 7th Texas Tech Annual Biological Sciences Symposium. Texas Tech University, Lubbock, Texas. 1-2 April 2016.
First Place, Oral Category, Evolutionary Biology Section.
33. * Francis James, Phillips Caleb, Bradley Robert. Resolving the phylogeography and phylogenetic variation in *Peromyscus maniculatus* using molecular systematics and next gene sequencing.
7th Texas Tech Annual Biological Sciences Symposium. Texas Tech University, Lubbock, Texas. 1-2 April 2016.
First Place, Oral Category, Proposals Section.
34. * Lindsey Laramie, Platt Neal, Ray David, Phillips Caleb, Bradley Robert. Addressing the adaptive radiation in *Peromyscus* using transcriptome data.
Annual meeting of the Texas Society of Mammalogists. 12-13 February 2016. Oral Presentation.
35. * Francis James, Phillips Caleb, Bradley Robert. Phylogenetics of *Peromyscus maniculatus* based on the mitochondrial gene cytochrome-b.
Annual meeting of the Texas Society of Mammalogists. 12-13 February 2016. Poster Presentation.

CONFERENCE WORKSHOPS ORGANIZED/CONDUCTED

1. Participated in a metagenomics workshop at the 2017 meeting of the Society for Integrative and Comparative Biology. Denise Dearing and Kevin Kohl led organization of the workshop. I provided two lectures - one on a research topic and a second as a lunch hour workshop on methods and challenges.
2. Led the development (with John Hanson) of a symposium at the 2017 meeting of the American Society of Mammalogists. The title and topic of the symposium was "Genomic Approaches to Consequential Questions in Mammalogy".

FUNDING

EXTERNAL APPLICATIONS PENDING

1. Title: Patient Genetic Determinants of Chronic Wound Microbiome Composition
Agency: National Institutes of Health
PIs and Co-PIs: Caleb Phillips (PI)
Amount Requested/Obtained: \$419,497
Duration: 2021-2024
Candidate's Percentage of Effort: 100
Cayuse proposal number: 20-0958
2. Title: Characterizing soil microbiomes essential to sustainable management of semi-arid cropping systems
Agency: USDA-NIFA
PIs and Co-PIs: Lindsey Slaughter (PI), Jyotsna Sharma (Co-PI), Caleb Phillips (Co-PI), Cassandra

Huey (Co-PI)
Amount Requested/Obtained: \$749,999
Duration: 2021-2025
Candidate's Percentage of Effort: 20
Cayuse proposal number: 20-0933

3. Title: Evaluating the risk of *Mycoplasma sp.* transmission from Aoudad to Bighorn Sheep
Agency: Texas Parks and Wildlife Department
PIs and Co-PIs: Caleb Phillips (PI)
Amount Requested/Obtained: \$40,281 (cost share portion = 10,081)
Comment: This is a subaward through collaboration with TAMU: Total budget: \$175,000
Duration: 2020-2021
Candidate's Percentage of Effort: 100
Cayuse proposal number: 20-0464

EXTERNAL APPLICATIONS ACCEPTED

1. Title: Community processes structuring assembly and disassembly of bat gut-microbial communities across a gradient of habitat degradation
Agency: National Science Foundation
Division: Division of Environmental Biology
PIs and Co-PIs: Tigga Kingston (PI), Caleb Phillips (Co-PI)
Amount Requested/Obtained: \$829,961/829,961
Duration: 2018-2021
Candidate's Percentage of Effort: 50
Cayuse proposal number: 17-1119
2. Title: Genetic Species Identification of *Cicurina sp.*
Agency: Zara Environmental LLC
Mechanism: Contract
PIs and Co-PIs: Caleb Phillips (PI)
Amount Requested/Obtained: \$16,199/16,199
Duration: 2017-2021
Candidate's Percentage of Effort: 100
Cayuse proposal number: 17-205
3. Title: Status, Distribution, Morphology and Genetics of *Sigmodon fulviventer dalquesti* in the Chihuahuan Desert Ecoregion
Agency: Texas Parks and Wildlife Department
Mechanism: State Wildlife Grants
PIs and Co-PIs: Caleb Phillips (PI)
Amount Requested/Obtained: \$134,447/134,447 (cost share portion = 34,859)
Duration: 2017-2020
Candidate's Percentage of Effort: 100
Cayuse proposal number: 17-0748
4. Title: Endangered Eyeless *Cicurina* (Araneae: Dictynidae): Species Identification with Genetic Ap-

plications

Agency: TxDOT

Co-PIs: Robert Baker (PI), James Cokendolpher (Co-PI), Caleb Phillips (Co-PI)

Amount Requested/Obtained:\$ 89,717/89,717

Duration: 2014-2016

Candidate's Percentage of Effort: 25

Cayuse proposal number: 14-0557

5. Title: Gut microbial compositions of ecologically diversified Chiropteran species
Agency: RTLGenomics - Cost-sharing grant program for 454-sequencing and data processing
Co-PIs: Caleb Phillips (PI)
Amount Requested/Obtained: \$12,000/12,000
Duration: 2010
Candidate's Percentage of Effort: 100
Cayuse proposal number: NA

EXTERNAL APPLICATIONS DENIED

1. Title: Morphology, landscape genomics and effective population size of the Palo Duro Mouse, *Peromyscus truei comanche*
Agency: Texas Parks and Wildlife Department
PIs and Co-PIs: Joseph Manthey (PI), Caleb Phillips (Co-PI), Robert Bradley (Co-PI)
Amount Requested/Obtained: \$282,585 (cost share portion = 106,544)
Duration: 2021-2023
Candidate's Percentage of Effort: 25
Cayuse proposal number: 20-0726
2. Title: Management of Stress and Fish Health in Marine Aquaculture: Evaluating the effectiveness of probiotic intervention on productivity, profitability and production risk
Agency: National Oceanic and Atmospheric Administration
PIs and Co-PIs: Caleb Phillips (PI)
Amount Requested/Obtained: \$47,341
Comment: This is a subaward through collaboration with UNT: Total budget: \$300,000
Duration: 2020-2022
Candidate's Percentage of Effort: 100
Cayuse proposal number: 20-0206
3. Title: Predicting zoonotic transmission and designing a broad-spectrum coronavirus vaccine through genomic analysis of Old World and New World bat coronaviruses
Agency: National Institutes of Health
PIs and Co-PIs: Harvinder Gill(PI), Robert Bradley (Co-PI), Caleb Phillips (Co-PI), Steven Presley (Co-PI), Joseph Manthey (Co-PI)
Amount Requested: \$497,461
Duration: 2020
Candidate's Percentage of Effort: 12
Cayuse proposal number: 20-0760

4. Title: Characterizing root and soil microbiomes essential to sustainable management of semi-arid cropping systems
 Agency: USDA Agricultural Research Service
 PIs and Co-PIs: Lindsey Slaughter (PI), Jyotsna Sharma (Co-PI), Caleb Phillips (PI), Veronica Acosta-Martinez (Co-PI)
 Amount Requested: \$ 743,902
 Year: 2019
 Candidate's Percentage of Effort: 20
 Cayuse proposal number: 20-0095

5. Title: Stress Management in Marine Aquaculture: Evaluating the effectiveness of probiotic interventions on productivity, profitability and fish health of Red Drum
 Agency: National Oceanic and Atmospheric Administration
 Co-PIs: Caleb Phillips (PI)
 Amount Requested: \$70,093
 Year: 2018
 Candidate's Percentage of Effort: 100
 Cayuse proposal number: 19-0349

6. Title: Ensuring the long-term molecular integrity of natural history samples for biological and human health research
 Agency: Institute of Museum and Library Services
 Co-PIs: Caleb Phillips (PI), Robert Bradley (Co-PI)
 Amount Requested: \$497,784
 Year: 2018
 Candidate's Percentage of Effort: 60
 Cayuse proposal number: 19-0236

7. Title: Stress Management in Marine Aquaculture: Evaluating the effectiveness of probiotic interventions on productivity, profitability and fish health of Red Drum
 Agency: National Oceanic and Atmospheric Administration
 Co-PIs: Caleb Phillips (PI) Amount Requested: \$71,854
 Year: 2018
 Candidate's Percentage of Effort: 100
 Cayuse proposal number: 19-0141

8. Title: Revealing the predictors of chronic wound microbiomes using nationwide data, ecological theory and structural equation modeling
 Agency: National Institutes of Health
 Co-PIs: Caleb Phillips (PI)
 Amount Requested: \$556,744
 Year: 2018
 Candidate's Percentage of Effort: 100
 Cayuse proposal number: 19-0047

9. Title: Revealing the predictors of chronic wound microbiomes using nationwide data, ecological theory and structural equation modeling
 Agency: American Diabetes Association

Co-PIs: Caleb Phillips (PI)
Amount Requested: \$304,847
Year: 2018
Candidate's Percentage of Effort: 100
Cayuse proposal number: 18-0723

10. Title: Assessment of probiotics and microbiome diversity to produce healthy fish for human consumption using next generation deep sequencing technologies
Agency: National Oceanic and Atmospheric Administration
Co-PIs: Caleb Phillips (PI)
Amount Requested: \$184,802
Year: 2017
Candidate's Percentage of Effort: 100
Cayuse proposal number: 17-0739
11. Title: Collaborative Research: Novel transposable element invasions and regulatory evolution
Agency: National Science Foundation
Co-PIs: David Ray (PI), Caleb Phillips (Co-PI)
Amount Requested: \$1,025,538
Year: 2016
Candidate's Percentage of Effort: 50
Cayuse proposal number: 17-0287
12. Title: Dissertation Research: Taxonomy and Lyme Disease Ecology of Deer Mice on Grand Manan Island (Howard Hyunh)
Agency: National Science Foundation
Co-PIs: Caleb Phillips (PI)
Amount Requested: \$18,141
Year: 2016
Candidate's Percentage of Effort: 100
Cayuse proposal number: 17-0157
13. Title: Storm-Proofing Fish? Using probiotics to reduce stress, increase gut health, and improve economic viability for marine finfish aquaculture in Texas
Agency: National Oceanic and Atmospheric Administration
Co-PIs: Caleb Phillips (PI)
Amount Requested: \$0 - preliminary proposal
Year: 2016
Candidate's Percentage of Effort: 100
Cayuse proposal number: NA
14. Title: Preliminary Proposal: Community processes structuring assembly and disassembly of bat gut-microbial communities across a gradient of habitat degradation
Agency: National Science Foundation
Co-PIs: Tigga Kingston (PI), Caleb Phillips (Co-PI)
Amount Requested: \$831,567
Year: 2016
Candidate's Percentage of Effort: 50

Cayuse proposal number: 16-1174

15. Title: Dimensions: Environmental degradation and insectivorous bats in Malaysia: how host genetics, gut microbiome and metagenome function interact to affect host health
Agency: National Science Foundation
Co-PIs: Tigga Kingston (PI), Liam McGuire (Co-PI), Caleb Phillips (Co-PI)
Amount Requested: \$1,999,697
Year: 2016
Candidate's Percentage of Effort: 30
Cayuse proposal number: 16-0701

16. Title: Preliminary Proposal: Community processes structuring assembly and disassembly of bat gut-microbial communities across a gradient of habitat degradation
Agency: National Science Foundation
Co-PIs: Tigga Kingston (PI), Caleb Phillips (Co-PI)
Amount Requested: \$0 - preliminary proposal
Year: 2016
Candidate's Percentage of Effort: 50
Cayuse proposal number: 16-0559

17. Title: Preliminary Proposal: Collaborative Research: Genomic Signatures of Diversification
Agency: National Science Foundation
Co-PIs: David Ray (PI), Richard Stevens (Co-PI), Cibele Caio (Co-PI), Liam McGuire (Co-PI), Caleb Phillips (Co-PI), Robert Bradley (Co-PI), Neal Platt (Co-PI)
Amount Requested: \$0 - Preliminary Proposal
Year: 2016
Candidate's Percentage of Effort: 15
Cayuse proposal number: 16-0493

18. Title: Update of distribution and population status of *Thomomys bottae* in Texas with a focus on the subspecific status of *T. b. texensis*
Agency: Texas Parks and Wildlife Department
Co-PIs: Caleb Phillips (PI)
Amount Requested: \$86,665
Year: 2015
Candidate's Percentage of Effort: 15
Cayuse proposal number: 16-0329

19. Title: DISSERTATION RESEARCH: Systematics and island biogeography of *Peromyscus maniculatus* in Atlantic Canada
Agency: National Science Foundation
Co-PIs: Caleb Phillips (PI) Robert Baker (Co-PI)
Amount Requested: \$17,858
Year: 2015
Candidate's Percentage of Effort: 50
Cayuse proposal number: 16-0240

20. Title: Digitization TCN: Collaborative Research: Specimen Digitization for functional analysis of the biodiversity in bats
Agency: National Science Foundation
Co-PIs: Robert Bradley (PI), Caleb Phillips (Co-PI)
Amount Requested: \$99,720
Year: 2015
Candidate's Percentage of Effort: 50
Cayuse proposal number: 16-0148

INTERNAL APPLICATIONS DENIED

1. Title: Expansion of TTU's liquid nitrogen infrastructure for archiving biospecimens for natural history and human health research
Agency: CH Foundation
Amount Requested: preproposal
Submitted: 2019
Candidate's Percentage of Effort: 100

DONATIONS

1. Title: Development of the Wolcott Wound Care Research Collection in the Genetic Resources Collection of the NSRL
Agency: Private Donation from Randy Wolcott
Donation: \$100,000
Year: 2017
2. Title: Status of bighorn sheep in Texas: translocation history, disease risk potential, and establishment of archival tissue collection for range-wide disease surveillance
Agency: Donation from the Wild Sheep Foundation
PIs and Co-PIs: Warren Conway (lead), Robert Bradley, Caleb Phillips, Samuel Cunningham (research team)
Donation: \$50,000
Year: 2017
3. Title: Funding for a PhD student
Agency: Donation from the Texas Bighorn Sheep Foundation
PIs and Co-PIs: Warren Conway (lead), Robert Bradley, Caleb Phillips, Samuel Cunningham (research team)
Donation: \$160,000
Year: 2017
4. Title: Understanding the genetic consequences of multigenerational exposure to low-dose radiation
Agency: Private Donation from Jim Sowell
Donation: \$57,000
Year: 2011

IV. SERVICE

DEPARTMENTAL SERVICE

1. Chair of the Bobby Baker Scholarship for Undergraduate Genomics Studies (2015 - 2020)
2. Member of a successful faculty search committee for a metagenomicist (2015)
3. Member of a successful faculty search committee for a plant phylogenomicist (2016)
4. Member of Biological Sciences Graduate Student Affairs Committee (2016 -)
5. Member of Biological Sciences Special Graduate Awards Committee (2017 -)
6. Member of Biological Sciences Genetics/Genomics Curriculum Committee (2017 -)
7. Member of a successful staff search committee for a Programmer Analyst I (2017)
8. Reviewer for biology graduate student annual proposal competition (2016 -)

SERVICE TO THE PROFESSION

1. Guest Editor for *Genes* covering special issue "Metagenomic and Genomic Evolution Underlying Mammalian Adaptations" (2020 -)
2. Member of the Systematic Collections Committee of the American Society of Mammalogists. Through this role Dr. Phillips lead the development of formal national accreditation standards for the genetic resources collections.
3. Serving on the Texas Genetics Society Board of Directors (2017-2022).
4. Served as Vice President of the Texas Genetics Society (2018-2019).
5. Served as President of the Texas Genetics Society (2019-2020).

REVIEWER: ACADEMIC ARTICLES

1. 2015: Reviewed two articles for Molecular Ecology and one article for GENE.
2. 2016: Reviewed one article for Nature Ecology and Evolution, three articles for BMC Research Notes, three articles for Molecular Ecology, one article for GENE, one article for FEMS Microbiology Ecology, and one article for Occasional Pappers.
3. 2017: Reveiwed two articles for Nature Ecology and Evolution and one article for PLoS One.
4. 2018: Reviewed one article for Frontiers in Microbiology, one article for Microbiology Open, and one article for Molecular Ecology Resources.
5. 2019: Reviewed one article for Molecular Ecology, one article for Molecular Biology and Evolution, two articles for Microbiology Open, and two articles for Occasional Papers.
6. 2020: Reviewed one article for Molecular Ecology and one article for Molecular Biology and Evolution.

REVIEWER: GRANT PROPOSALS

1. 2019: Served as reviewer for two proposals submitted to the National Science Foundation. Both of these proposals were submitted through the Division of Environmental Biology.

MEDIA PRESENTATIONS

1. <https://www.youtube.com/watch?v=6bd9iqq12Vs>
2. <http://today.ttu.edu/posts/2016/10/expert-halloween>
3. <http://www.sciencedaily.com/releases/2015/10/151030220837.html>
4. <http://phys.org/news/2015-11-vampire-saliva-specially-evolved-blood-feeding.html>
5. <http://gizmodo.com/the-genetic-basis-for-vampirism-may-be-buried-across-th-1739793378>
6. <http://today.ttu.edu/posts/2015/10/vampire-bats-saliva-specially-evolved-for-blood-feeding>
7. <http://esciencenews.com/sources/newswise.scinews/2015/10/30/researchers.and.vampire.bats.saliva.specially.evolved.for.blood.feeding>.
8. <http://pirman.es/videos/la-saliva-de-murcielagos-vampiro-evoluciono-para-alimentarlos-de-sangre/>
9. <http://www.newswise.com/articles/view/642374/?sc=rsla>
10. <http://www.depts.ttu.edu/vpr/discoveries/features/a-design-for-blood.html>
11. <http://today.ttu.edu/posts/2017/01/nsrl-2>
12. <https://www.youtube.com/watch?v=6bd9iqq12Vs>
13. Tipton et al. (2020 has been covered by around 30 news outlets, and more articles are coming out soon. Here is a list of current outlets (15MinuteNews.com, Alert Articles, AZoLifeSciences, BICYCLING - BIKES and GEAR, Bioengineer, Brigham and Women's Hospital, BrightSurf.com, Clinical Connection, Cooking With Kathy Man, Drugs.com, EurekAlert, everythingLubbock.com, Genetic Engineering and Biotechnology News Online, Health24 South Africa, HealthDay, HealthNewsDigest.com, Medical Xpress, NewsCaf, Newsmax.com, News-Medical.Net, Newswise, Science Newsnet, ScienceDaily, Scienmag, Tampa General Hospital Online, Texas Tech Today, U.S. News and World Report, USSA News Online, Webs Favourites)