

## CURRICULUM VITAE

# Cecil M. Lewis, Jr.

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### Education

Post-doctoral Human Genetics, University of Michigan, 2005-2007  
Ph.D. (Distinction) Anthropology, University of New Mexico, 2005  
M.A. Anthropology, University of New Mexico, 2001  
B.A. Anthropology, University of Washington, 1996

### Faculty Appointments

2007-present Assistant Professor, Department of Anthropology, University of Oklahoma  
2007-present Affiliated faculty, Center for Applied Social Research, University of Oklahoma  
2007-present Affiliated faculty, Ecology and Evolutionary Biology, University of Oklahoma  
2008-present Affiliated faculty, Oklahoma Tobacco Research Center

### Professional Interests

Molecular anthropology, human population history, human evolution, ancient DNA, Andean archaeology, bioarchaeology, genetic data analysis

### External Awards and Grants

2008 Oklahoma Tobacco Research Center, Seed Grant  
2005-2007 Genome Science Training Program, National Institutes of Health  
2004, 2002 Dissertation Fieldwork Grant and Supplement, Wenner-Gren Foundation #6891  
2002 Dissertation Improvement Grant, National Science Foundation #0221962  
2000 Sigma Xi Grants-in-Aid of Research

### Publications

#### *Refereed Articles:*

in press Verrelli, BC, CM Lewis Jr, AC Stone, GH Perry, Different Selective Pressures Shape the Molecular Evolution of Color Vision in Chimpanzee and Human Populations. (*Molecular Biology and Evolution*)  
in press Lewis, CM, Jr, Difficulties in rejecting a local ancestry with mtDNA haplogroup data in the South Central Andes. (*Latin American Antiquity*)  
in press Tito, RY, S Macmil, G Wiley, F Najjar, L Cleeland, C Qu, P Wang, F Romagne, S Leonard, AJ Ruiz, K Reinhard, BA Roe, CM Lewis Jr. Phylotyping and Functional Analysis of Two Ancient Human Microbiomes. (*PLoS One*)  
2008 Lewis, CM, Jr, JC Long, Native South American genetic structure and prehistory inferred from hierarchical modeling of mtDNA. *Molecular Biology and Evolution*. 25(3):478-486.  
2007 Wang, Sijia, CM Lewis Jr., M Jakobsson, S Ramachandran, N Ray, G Bedoya, W Rojas, MV Parra, JA Molina, C Gallo, G Mazzotti, G Poletti, K Hill, AM

- Hurtado, D Labuda, W Klitz, R Barrantes, MC Bortolini, FM Salzano, ML Petzl-Erler, E Llop, F Rothhammer, L Excoffier, MW Feldman, NA Rosenberg, and Andrés Ruiz-Linares, Genetic Variation and Population Structure in Native Americans. *PLoS Genetics*. 3(11):e185.
- 2007 Lewis, CM, Jr, JE Buikstra, AC Stone, Ancient DNA and genetic continuity in the South Central Andes. *Latin American Antiquity*. 18(2):145-160.
- 2007 Lewis, CM, Jr, B Lizárraga, RY Tito, PL Gonzalez, GC Iannacone, AC Medina, REM Abanto, SIP Santillán, FADI Cruz, AMC Fernandez and AC Stone, Mitochondrial DNA and the Peopling of South America. *Human Biology*. 79(2):159-178.
- 2004 Lewis, CM, Jr, R Tito, B Lizárraga, AC Stone, Land, Languages, and Loci, MtDNA HV1 in Native Americans and the Genetic History of Perú. In *American Journal of Physical Anthropology*. 127(3):351-360.
- 2002 Monsalve, MV, AC Stone, CM Lewis, A Rempel, M Richards, D Strathoff, DV Devine, Molecular analysis of the Kwaday Dän Sinchi ancient remains found in a glacier in Canada. In *American Journal of Physical Anthropology*. 119:288-291.
- 1999 Lawson, AE, CM Lewis, and JP Birk, Why Do Students “Cook” Lab Data? A Case Study of the Tenacity of Misconceptions. In *Journal of College Science Teaching*. 24(3):191-198.

*Edited Volumes:*

- in press Lewis, CM, Jr and TA Tung, Considerations when sampling human osteological remains. In *New Bioarchaeological Perspectives: Essays in Honor of Jane E. Buikstra*, edited by B. Ó. Donnabháin and M. C. Lozada. Cotsen Institute of Archaeology, UCLA, Los Angeles, CA.
- 2007 Long, JC, N Scott, and CM Lewis, Jr, Race, Genetics, in Health. In *Encyclopedia of Race and Racism*. N.Watkins ed. Macmillan Library Reference.
- 2005 Lewis, CM, Jr, and AC Stone, MtDNA diversity at the archaeological site of Chen Chen in Perú. In *Biomolecular Archaeology: Genetic Approaches to the Past*. D.Reed ed. Proceedings from the 19<sup>th</sup> Annual Visiting Scholar Conference, Southern Illinois University Press.

**Services at the University of Oklahoma**

2007-present Celebrate Darwin 2009 Steering Committee Member

**External Services**

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| Journal Reviewer:                      | <i>Journal of Field Archaeology</i>   |
| <i>Molecular Biology and Evolution</i> | <i>Annals of Human Genetics</i>   |
| <i>Current Anthropology</i>            | <i>American Journal of Physical Anthropology</i>  |
| <i>Biology Letters</i>                 | <i>Journal of Archaeological Science</i>  |
| <i>Latin American Antiquity</i>        | <i>Journal of Parasitology</i>  |
| <i>Chungara</i>                        |   |
| 2007                                   | Committee member, American Association of Anthropological Genetics Award for Outstanding Student Presentation on Anthropological Genetics |
| 2004                                   | Consultant, “Mummy Autopsy”, Atlantic Productions (Discovery)   |

**Courses Taught**

- 2008-present Anthropology Department, University of Oklahoma  
Senior/Graduate Level, "Introduction to Population Genetics"
- 2008-present Anthropology Department, University of Oklahoma  
Sophomore Level "Introduction to Biological Anthropology"
- 2008-present Anthropology Department, University of Oklahoma  
Senior Level "Genetic Perspectives on Human Evolution"
- 2004 Biology Department, University of New Mexico  
Freshman Level-Introductory biology laboratory
- 2004 Anthropology Department, University of New Mexico  
Junior Level-Human evolution laboratory
- 2003 Anthropology Department, University of New Mexico  
Graduate Level-Introductory statistics laboratory

### Professional Reports

- 2005 Intercontinental to Intrasite Genetic Analyses of Ancient and Contemporary Native American Communities. PhD dissertation, University of New Mexico
- 2004 Lewis, CM, Jr, AC Stone, An ancient Y-chromosome DNA analysis of the possible remains of William Benjamin Bridger: Atlantic Productions and Discovery Communication's: Mummy Autopsy.
- 2004 Lewis, CM, Jr, Report on ancient DNA from the YA1-59-1 tooth sample from the archaeological site of El Yaral, Perú.
- 2003 Lewis, CM, Jr, AC Stone, Forensic mtDNA analysis of a Cochiti Pueblo skeleton. Office of the Medical Investigator. Albuquerque, NM
- 2000 Lewis, CM, Jr, Skeletal Analysis Report for 40 individuals from the Archaeological Sites of Descanso and La Cruz, Ilo, Perú. Centro Mallqui, Ilo, Perú: 243.
- 1999 Lewis, CM, Jr, Skeletal Analysis Report for Quasar (#359) Skeletons. The Center for American Archeology, Kampsville, IL: 7.

### Conference Papers, Posters, and Invited Lectures

- 2008 Lewis, CM Jr, Archaeological and ethnohistoric contributions to understanding human genetic variation in the South Central Andes, Podium presentation at the 27<sup>th</sup> Northeast Conference on Andean Archaeology and Ethnohistory, Bangor, Maine.
- 2008 Lewis, CM Jr and Cleeland, L. First Contact: The Archaeologist's Role in Ancient DNA Investigations. Podium presentation at the 73<sup>rd</sup> annual meeting of the Society for American Archaeology, Vancouver, BC.
- 2008 JC Long, CM Lewis Jr, J Li, R Malhi, K Hunley, Allelic Variability and Tests for Natural Selection at the Human ALDH2 Locus, Paper presented at the 77<sup>th</sup> annual meeting of the American Association of Physical Anthropologists, Columbus, OH.
- 2007 Cleeland, L. and CM. Lewis Jr. Ancient DNA on the Front Line: The Archaeologist's Place in Ancient DNA Research. Podium presentation at the 65<sup>th</sup> Annual Plains Anthropological Conference, Rapid City, South Dakota.
- 2007 Lewis, CM, Jr, South American Genetic Variation and Origins. *Invited Lecture*, University of Maine, Orno, Maine.

- 2007 Lewis, CM, Jr, A New Model for Native South American Genetic Variation and Origins. *Invited Lecture*, Vanderbilt University, Nashville, Tennessee.
- 2006 Lewis, CM, Jr, and JC Long, A New Model for South American Origins and Diversity Inferred from Hierarchical Modeling of mtDNA Variation. Podium presentation at the American Society of Human Genetics 56<sup>th</sup> annual meeting, New Orleans, Louisiana.
- 2006 Long, JC, CM Lewis, J Li, RS Malhi, K Hunley. Allelic Variability and Tests for Natural Selection at the Human ALDH2 Locus. Poster presentation at the American Society of Human Genetics 56<sup>th</sup> annual meeting, New Orleans, Louisiana.
- 2006 Lewis, CM, Jr, and JC Long, Native South American Prehistory Inferred from Hierarchical Modeling of mtDNA Data. Poster presented at the 50<sup>th</sup> Anniversary and Symposium for the Department of Human Genetic at the University of Michigan, Ann Arbor, Michigan.
- 2006 Lewis, CM, Jr, and JC Long, Generalized hierarchical modeling and the peopling of South America. Paper presented at the 75<sup>th</sup> annual meeting of the American Association of Physical Anthropologists, Anchorage, Alaska.
- 2006 Lewis, CM, Jr, AK Wilbur, JE Buikstra, Genetic continuity of prehistoric and contemporary communities in the South Central Andes supported by mitochondrial DNA. Paper presented at the 71<sup>st</sup> Annual Meeting of the Society for American Archaeology San Juan, Puerto Rico.
- 2005 Lewis, CM, Jr, JE Buikstra, AC Stone, Gene flow and the Andes: tests of migration at the archaeological site of Chen Chen. Paper presented at the 74<sup>th</sup> Annual Meeting of the American Association of Physical Anthropology, Milwaukee, Wisconsin.
- 2005 Verrelli, B, CM Lewis, and AC Stone, Contrasting evolutionary histories at human and chimpanzee G6PD and OPN1LW genes. Society of Molecular Biology and Evolution meetings, Auckland, New Zealand.
- 2005 Stone, AC, GS Cabana, RY Tito, PW Lopez, GC Iannacone, CM Lewis, B Lizarraga, Population structure and history in Peru. Paper presented at the 74<sup>th</sup> Annual Meeting of the American Association of Physical Anthropology, Milwaukee, Wisconsin.
- 2005 Cabana, GS, CM Lewis, AC Stone, Inference of population history from DNA haplogroup frequencies using computer simulation modeling. Paper presented at the 74<sup>th</sup> Annual Meeting of the American Association of Physical Anthropology, Milwaukee, Wisconsin.
- 2004 Lewis, CM, Jr, AC Stone, MtDNA diversity at the archaeological site of Chen Chen, Perú: Implication for Andean Genetic History. Paper presented at the 69<sup>th</sup> Annual Meeting of the Society for American Archaeology, Montreal, Canada.
- 2003 Lewis, CM, Jr, Analysis of closely related species. Paper presented at the Universidad de Ricardo Palma, Lima, Peru.
- 2002 Lewis, CM, Jr, L Salter, R Tito, B Lizárraga, AC Stone, Migraciones de las Poblaciones Andinas Reveladas por ADN Mitocondrial (mtDNA). Paper presented at the Universidad Nacional Mayor de San Marcos, Lima, Perú.
- 2002 Stone, AC, J Benn, AK Wilbur, H Lin, CM Lewis, E Trudeau, J Feurstein, and M Hammer, Chimpanzee population structure and history from Y chromosome and

- mtDNA data. Human Origins and Disease Conference, Cold Spring Harbor Laboratory, New York.
- 2002 Stone, AC, J Benn, AK Wilbur, H Lin, CM Lewis, E Trudeau, J Feurstein, and M Hammer, Population structure and history of *Pan* from Y chromosome and mtDNA data. Society of Molecular Biology and Evolution meetings, Sorrento, Italy.
- 2002 Lewis, CM, Jr, L Salter, R Tito, B Lizárraga, AC Stone, An Investigation of Genetic, Linguistic, and Geographical Distance in American Indians Using Multivariate and Phylogenetic Procedures: Contributions from Ancash, Perú and the Introduction of POML. Paper presented at the 71<sup>th</sup> Annual Meeting of the American Association of Physical Anthropology, Buffalo, New York.
- 2002 Lewis, CM, Jr, and AC Stone, A Molecular Genetic Study of the Prehistoric Tiwanaku Colony of Chen Chen: Implications for the Genetic Relationships of Tiwanaku Peoples and the Peopling of South America. Poster presented at the 67<sup>th</sup> Annual Meeting of the Society for American Archaeology, Denver, Colorado.
- 2000 Stone, AC, MR Bonner, CM Lewis, and M Hammer, What subspecies are they? Mitochondrial DNA and Y chromosome diversity in captive Pan troglodytes. The American Association of Physical Anthropologists meeting, San Antonio, Texas.
- 2001 Monsalve, MV, AC Stone, CM Lewis, A Rempel, M Richards, D Strathoff, DV Devine, Molecular analysis of the Kwaday Dän Sinchi ancient remains found in a glacier in Canada. Poster presented at the IV World Congress of Mummy Studies, Nuuk, Greenland.
- 2001 Stone, AC, CM Lewis, J Grutt, M Hammer, Pan troglodytes and Pan paniscus diversity: results from the Y Chromosome. Poster presented at the 70<sup>th</sup> Annual Meeting of the American Association of Physical Anthropology, Kansas City, Missouri.
- 2001 Davidson, E, HE Cate, CM Lewis, M Hunter, Data Manipulation in the Undergraduate Classroom: What are We Teaching? Paper in the 2000 ORI RRI Conference Proceedings, Washington D.C.
- 2000 Stone, AC, R Bonner, CM Lewis, M Hammer, What Subspecies are They? Mitochondrial DNA and Y Chromosome Diversity in Captive Pan Troglodytes. Poster presented at the 69<sup>th</sup> Annual Meeting of the American Association of Physical Anthropology, San Antonio, Texas.
- 1999 Lewis, CM, Jr, Integrating Darwinian Archaeology: A Biological Perspective. Paper presented at the 64<sup>th</sup> Annual Meeting of the Society for American Archaeology, Chicago, Illinois.

### **Laboratory Employment**

- 2004-2005 Research technician, human molecular genetics  
School of Life Sciences, Arizona State University
- 1999 to 2003 Research assistant, molecular anthropology  
Anthropology Department, University of New Mexico
- 1998 Lab assistant, osteology  
Maxwell Museum, University of New Mexico
- 1994 Lab assistant, fauna analysis

- 1994 Donald Grayson, University of Washington  
Student, Zooarchaeology and field ecology Field School  
Frank Bayham and Raymond J. Bogiatto, California State University at Chico
- 1993 Lab assistant, anthropometric analysis  
Laura Newel, University Washington

### **Excavation Experience**

- 1999 El Descanso, Peru  
Directed by Centro Mallqui, Peru
- 1998 Comanche Springs Archaeological  
Directed by Dr. Ann F. Ramenofsky
- 1998 Terramar-Palo Verde Ruin  
Directed by Northland Research, Inc.
- 1996 Rudd Creek Ruin  
Archaeological Field School, Arizona State University

### **Graduate Students**

Lauren Cleeland, Lauren O'Shea, Alexandra Tito

### **Professional Affiliations**

American Association of Physical Anthropologists  
Society for American Archaeology  
American Society of Human Genetics  
Sigma Xi

### **Languages**

English, Spanish, C++, R