

## CURRICULUM VITAE

### Dennis H. O'Rourke

Department of Anthropology  
University of Kansas  
1415 Jayhawk Blvd., 635 Fraser  
Lawrence, Kansas 66045

Phone: 785.864.2642  
FAX: 785.864.5224  
E-mail: orourke@ku.edu

Web Link: <http://www.anthropology.ku.edu>

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#### **Education**

- 1980 Ph.D., Anthropology, University of Kansas, Lawrence, KS  
DISSERTATION: *Inbreeding Effects on Morphometric Characters in the Papio hamadryas Colony at Sukhumi*
- 1977 M. Phil., Anthropology, University of Kansas, Lawrence, KS
- 1976 M.A., Anthropology, University of Kansas, Lawrence, KS  
MASTER'S THESIS: *Odontometric Analysis of Four Tlaxcaltecan Communities of Related Genetic Background*
- 1973 B.A., Anthropology, University of Kansas, Lawrence, KS  
HONORS THESIS: *Quantitative Analysis of Play Behavior in Captive Juvenile Gorillas and Orang-utans*

#### **Professional Positions**

- 1/16-current Foundation Distinguished Professor, Department of Anthropology, University of Kansas  
Assoc. Director, Laboratories of Biological Anthropology, University of Kansas  
Professor Emeritus, Department of Anthropology, University of Utah
- 8/96-8/98 Program Director for Physical Anthropology, National Science Foundation, Arlington, VA.
- 1978-2015 Instructor, Asst. Prof. (1980), Assoc. Prof. (1985), Prof. (1994) Dept. of Anthropology, Univ. of Utah
- 1980-81; Post-doctoral trainee in Genetic Epidemiology, Department of Psychiatry,  
Su. '82-'84 Washington University School of Medicine, St. Louis, MO

#### **Research Interests**

Population and evolutionary genetics, ancient DNA analysis, molecular and quantitative methods, bioethical issues in anthropology and genetics; Native America, Siberia, historic and prehistoric populations of the circum-arctic,

#### **Professional Affiliations**

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| American Society of Human Genetics               | Amer. Assn. for the Advancement of Science (Fellow) |
| American Association of Physical Anthropologists | Society for the Study of Social Biology             |
| Society for Molecular Biology and Evolution      | Human Biology Association                           |
| American Association of Anthropological Genetics | Alaska Anthropology Association                     |

#### **Professional Service Positions**

- 2/17-present Member, Committee on Science Policy, AAPA
- 2/15-2/17 Chair-elect [2/15], Chair [2/16], Retiring Chair [2/17] - Section H (Anthropology), AAAS
- 9/13-3/17 National NAGPRA Review Committee, National Park Service
- 4/06-4/12 Vice President & Program Chair [2006-'08], President-elect [2008-'09], President [2009-'11], and  
Past-President [2011-'12], American Association of Physical Anthropology
- 11/09-11/10 US-France Committee on Research Collaboration - Archaeology.
- 8/09-2/10 J.I. Staley Prize Review Panel, School of American Research
- 10/09 Chair, Committee of Visitors Review Panel, NSF Office of Polar Programs - Arctic Sciences
- 5/08 Committee of Visitors Review Panel Member, Human and Social Dynamics Program, NSF
- 2/08-2/12 AAAS Member-at-Large, Section H (Anthropology) Executive Committee
- 4/06-1/12 Native American Repatriation Review Committee, State of Utah, Division of Indian Affairs
- 3/06-4/07 President, American Association of Anthropological Genetics
- 10/00-2010 Norton Sound Health Corporation Research Ethics Review Board, Nome, AK

**Editorial Contributions**

10/14-present	Editorial Board Member, <i>PaleoAmerica</i>
4/13-present	Editorial Board Member, <i>Cambridge Studies in Biological and Evolutionary Anthropology</i>
3/13-present	Editorial Board Member, <i>Alaska Journal of Anthropology</i>
1/09-12/15	Academic Editor, <i>PLoS ONE</i>
1/10-1/12	Associate Editor, <i>Human Biology</i>
5/05-5/10	Associate Editor, <i>American Journal of Physical Anthropology</i>
10/99-8/03	Editor-in-Chief, <i>Human Biology</i>

**University, Community, and National Administrative Activities**

7/14-12/15	Director of Graduate Studies, Dept. of Anthropology, University of Utah
1/12-7/13	Interim Chair, Department of Anthropology, University of Utah
7/90-6/96	Chair, Department of Anthropology, University of Utah
1/90-6/96	Adjunct Curator of Physical Anthropology, Utah Museum of Natural History
1/89-6/90	Associate Dean, Research and Curricula; College of Social and Behavioral Science, Univ. of Utah

**PUBLICATIONS****BOOKS**

Stinson, S., B. Bogin and D.H. O'Rourke (2012) **HUMAN BIOLOGY: AN EVOLUTIONARY & BIOCULTURAL PERSPECTIVE, 2<sup>nd</sup> Edition**. New York: Wiley-Blackwell.

Stinson, S., B. Bogin, R. Huss-Ashmore and D.H. O'Rourke, eds. (2000) **HUMAN BIOLOGY: AN EVOLUTIONARY & BIOCULTURAL PERSPECTIVE**. New York: Wiley-Liss, Inc.

O'Rourke, D.H., G.M. Petersen and F.E. Johnston, eds. (1983) **GENETICS, EVOLUTION AND DISEASE**. New York: Alan R. Liss, Inc. (Also appeared as *American Journal of Physical Anthropology*, Vol. 62, No. 1)

**SELECT JOURNAL ARTICLES (20/43)**

Hoffecker, J.F., S.A. Elias, **D.H. O'Rourke**, G.R. Scott and N.H. Bigelow (2016) Beringia and the Global Dispersal of Modern Humans. *Evol. Anthropol.* 25:64-78. DOI: 10.1002/evan.21478.

Tackney, J., B.A. Potter, J. Raff, M. Powers, S. Watkins, D. Warner, J.D. Reuther, J.D. Irish, and **D.H. O'Rourke** (2015) Two Contemporaneous Mitogenomes from Terminal Pleistocene Burials in Eastern Beringia. *Proc. Natl. Acad. Sci., USA*, www.pnas.org/cgi/doi/10.1073/pnas.1511903112

Raghavan, M., M. DeGiorgio, A. Albrechtsen, I. Moltke, P. Skoglund, T.S. Korneliussen, B. Gronnøw, M. Appelt, H.C. Gulløv, M. Friesen, W. Fitzhugh, H. Malmström, S. Rasmussen, J. Olsen, L. Melchior, B.T. Fuller, S.M. Fahrni, T. Stafford Jr., V. Grimes, M.A.P. Renouf, J. Cybulski, N. Lynnerup, M.M. Lahr, K. Britton, R. Knecht, J. Arneborg, M. Metspalu, O.E. Cornejo, A-S Malaspinas, Y Wang, M Rasmussen, V Raghavan, TVO Hansen, E Khusnutdinova, T Pierre, K Dneprovski, C Andreasen, H. Lange, M.G. Hayes, J. Coltrain, V.A. Spitsyn, A. Götherström, L. Orlando, T. Kivisild, R. Villems, M.H. Crawford, F.C. Nielsen, J. Dissing, J. Heinemeier, M. Meldgaard, C. Bustamante, **D.H. O'Rourke**, M. Jakobsson, M.T.P. Gilbert, R. Nielsen and E. Willerslev (2014) The Genetic Prehistory of the New World Arctic. *Science*. 345: DOI: 10.1126/science. 1255832.

Hoffecker, J.F., S.A. Elias and **D.H. O'Rourke** (2014) Out of Beringia? *Science* (Perspective), 343:979-980. DOI: 10.1126/science.1250786.

Broughton, J.M., R.K. Beck, J.B. Coltrain, **D.H. O'Rourke** and A.R. Rogers (2012) A Late Holocene Population Bottleneck in California Tule Elk (*Cervus elaphus nannodes*): Provisional support from ancient DNA. *Journal of Archaeological Method and Theory*. DOI 10.1007/s10816-012-9167-Y (Published online 13 Dec. 2012).

Raff, J., D.A. Bolnick, J. Tackney and **D.H. O'Rourke** (2011) Ancient DNA Perspectives on American Colonization and Population History. *Amer. J. Phys. Anthropol.* 146:503-514. DOI: 10.1002/ajpa.21594.

- O'Rourke, D.H.** (2011) Contradictions and Concordances in American Colonization Models. *Evolution: Education & Outreach*. 4(2): 244-253. DOI: 10.1007/s12052-011-0336-3.
- Enk, J., R. DeBruyne, A. Devault, C.E. King, T. Treangen, **D.H. O'Rourke**, S.L. Salzberg, D. Fisher, R. Macphee and H. Poinar (2011) Complete Columbian Mammoth mitogenome suggests interbreeding with Woolly Mammoths. *Genome Biology*. 12:R51. DOI: 10.1186/gb-2011-12-5-r51
- Raff, J. J. Tackney and **D.H. O'Rourke** (2010) South From Alaska: A Pilot aDNA Study of Genetic History on the Alaska Peninsula and Eastern Aleutians. *Human Biology* 82: 677-694. (Special Issue on the Origins of the Populations of the Aleutian Islands. Edited by M.H. Crawford, D.L. West and D.H. O'Rourke)
- O'Rourke, D.H.**, D.L. West and M.H. Crawford (2010) Unangan Past and Present: The Contrasts Between Observed and Inferred Histories. *Human Biology* 82: 759-764. (Special Issue on the Origins of the Populations of the Aleutian Islands. Edited by M.H. Crawford, D.L. West and D.H. O'Rourke.
- O'Rourke, D.H.** and J. Raff (2010) The Genetic History of the Americas: The Final Frontier. *Current Biology*. 20:R202–R207, DOI 10.1016/j.cub.2009.11.051.
- Smith, S., Haye, M.G., Cabana, G., Coltrain, J.B., Huff, C. and **D.H. O'Rourke** (2009) Inferring Population Continuity versus Replacement with aDNA: A Cautionary Tale from the Aleutian Islands. *Human Biology*. 81(4): 19-38.
- Enk, J.M., D.R. Yesner, K.J. Crossen, D.W. Veltre and **D.H. O'Rourke** (2009) Mitochondrial DNA Sequence of a Mid-Holocene Woolly Mammoth from the Pribilof Islands, Alaska: Implications for Mammoth Evolution, Dispersal, and Pleistocene Refugia. *Palaeogeography, Palaeoclimatology, Palaeoecology* 273: 184-190. DOI:10:1016/j.paleo.2008.12.019.
- Goebel, T., M. Waters and **D.H. O'Rourke** (2008) The Late Pleistocene Dispersal of Modern Humans in the Americas. *Science*. 319:1497-1502.
- Marchani, E.E., A.R. Rogers and **D.H. O'Rourke** (2007) The Thule expansion: Rejecting population histories using mtDNA data and computer simulation. *Amer. J. Phys. Anthropol.* 134(2):281-284.
- Coltrain, J.B., M.G. Hayes and **D.H. O'Rourke** (2006) A Radiometric Evaluation of Hrdlicka's Aleutian Replacement Hypothesis: Population Continuity and Morphological Change. *Current Anthropology* 47(3):537-548.
- Coltrain, J.B., M.G. Hayes and **D.H. O'Rourke** (2004) Sealing, Whaling, and Caribou: The Skeletal Isotope Chemistry of Eastern Arctic Foragers. *Journal of Archaeological Science*. 31: 39-57.
- O'Rourke, D.H.** (2003) Anthropological Genetics in the Genomic Era: A Look Back and Ahead. *American Anthropologist*. 105(1):101-109.
- Carlyle, S.W., R.L. Parr, M.G. Hayes and **D.H. O'Rourke** (2000) The Context of Maternal Lineages in the Greater Southwest. *Amer. J. Phys. Anthropol.* 113(1):85-101.
- O'Rourke, D.H.**, M.G. Hayes and S.W. Carlyle (2000) Spatial and Temporal Stability of mtDNA Haplogroup Frequencies in Native North America. *Human Biology* 72(1):15-34.

#### SELECT INVITED BOOK CHAPTERS (10/21)

- Tackney, J., J.B. Coltrain, J. Raff and **D.H. O'Rourke** (2016) Molecular Windows on Arctic Prehistory. In: Handbook of Arctic Archaeology. O. Mason and M. Friesen, eds. Oxford University Press: London.
- D.H. O'Rourke** (2016) Molecular Approaches to Colonization and Population History in the North American Arctic. In: **Human Origin Sites and the World Heritage Convention in the Americas, Vol. II** (HEADS 5, World Heritage Papers 42), N. Sanz, ed. UNESCO.

- O'Rourke, D.H.** (2012) Why Do We Migrate? A Retrospective. In: **The Causes and Consequences of Migration: An Evolutionary Perspective**, Campbell B.C. and Crawford M. (eds.). Cambridge University Press: Cambridge.
- Scott, G.R. and **D.H. O'Rourke** (2010) Genes across Beringia: A Physical Anthropological Perspective on the Dené-Yeniseian Hypothesis. In : **Anthropological Papers of the University of Alaska Vol. 5(1-2) (New Series). Special Issue: The Dené-Yeniseian Hypothesis**. J. Kari and B. Potter, eds.
- O'Rourke, D.H.** (2010) Human Molecular Genetics. In: **A Companion to Physical Anthropology**. Clark Spenser Larsen, editor. Wiley-Blackwell: New York.
- O'Rourke, D.H.** (2007) Ancient DNA and its application to reconstruction of human evolution and population history. IN: **Anthropological Genetics: Theory, Methods & Applications**, M.H. Crawford, ed. Cambridge University Press: Cambridge.
- O'Rourke, D.H.** (2006) Classical marker variation in Native North Americans. IN: **Handbook of North American Indians. Vol. 3, Environment, Origins and Population**, D. Ubelaker (vol. ed.). Smithsonian Institution: Washington, DC.
- Hayes, M. G., J.B. Coltrain and **D.H. O'Rourke** (2005) Molecular archaeology of the Dorset, Thule, and Sadlermiut: Ancestor-descendant relationships in Eastern North American arctic prehistory. IN: **Contributions to the Study of the Dorset Palaeo-Eskimos**, P. Sutherland (ed.). Mercury Series, Archaeological Paper 167. Canadian Museum of Civilization, Hull, Quebec.
- O'Rourke, D.H.**, M.G. Hayes and S.W. Carlyle (2005) The Consent Process and aDNA Research: Contrasting Approaches in Northern North America. IN: **Biological Anthropology and Ethics**. Trudy Turner (ed.). State University of New York Press: Albany.
- O'Rourke, D.H.**, M.G. Hayes and S.W. Carlyle (2000) Ancient DNA Studies in Physical Anthropology. IN: **Annual Review of Anthropology**, 29:217-242. Palo Alto, CA: Annual Reviews, Inc.

### SELECT RECENT GRANTS AND AWARDS

- 2015 COLLABORATIVE RESEARCH: Birnirk prehistory and the emergence of Iñupiaq Culture in Northwestern Alaska: archaeological and anthropological perspectives. National Science Foundation, Co-PI (PLR-1523059) \$295,423 (36 mo.)
- 2014 Paleoepidemiology of Epidemic Disease in Prehistoric Europe. Funding Incentive Seed Grant, University of Utah, \$33,000 (12 mo.)
- 2014 Paleogenomic Analysis of Archaeological Corn, University of Utah Research Committee, \$5,700
- 2008 Stable and Radio-Isotope Chemistry of the Nuvuk Mortuary Assemblage, Point Barrow, AK. National Science Foundation, Co-PI (J. Coltrain, PI: OPP-0820790) \$134,247 (18 mo.).
- 2007 COLLABORATIVE RESEARCH: IPY: Reconstruction of Human Genetic History Along the North Slope. National Science Foundation, PI. (OPP-0732846) \$552,543. (\$1.06mil award; \$510K to M.G. Hayes, collaborating PI at Northwestern)

### SELECT FIELD EXPERIENCE

- 2016 Ancient DNA sample collection and bioarchaeological research at Cape Espenberg, AK. Co-PI.
- 2013 Ancient DNA sample collection and bioarchaeological research at Iglitqiugviguq (Swift Water Place), Kobuk Valley National Park, NW Alaska. Doug Anderson, PI.

- 2005-11 Bioarchaeological excavation, skeletal morphological and aDNA analysis, Nuvuk, Pt. Barrow, AK.
- 2001-05 Research discussions with The Aleut Corporation and Aleut/Pribilof Island Association, Anchorage AK. Met with representative of the Qawalangin Tribe of Unalaska to secure permission to sample materials from Unalaska region.

## **HONORS AND AWARDS**

Invited Presenter, New York Academy of Sciences	2016
Keynote Speaker, Second City Anthropology Conference, UI-Chicago	2016
Foundation Distinguished Professor, Dept. of Anthropology, University of Kansas	2016
Gabriel W. Lasker Service Award, American Association of Physical Anthropologists	2015
Bold Aspirations Lecturer, University of Kansas	2014
Rufus Wood Leigh Lecturer, University of Utah	2012
Robert L. Stigler, Jr., Lectureship in Archaeology, University of Arkansas	2009
University Professor, Univ. of Utah	2007-2008
AAAS Fellow	2007
Keynote Speaker, Argentina Association of Biological Anthropology (8 Jornadas Nacionales de Antropología Biológica – Salta, Argentina)	2007
Luncheon Speaker, AAPA	2006
Keynote Luncheon Speaker, Alaska Anthropology Association	2005
Plenary Speaker, AAPA	1997
Superior Teaching Award - CSBS, Univ. of Utah	1988

## **RECENT INVITED LECTURES** (11/49)

O'Rourke, D.H.

- 2016 Ancient Genomes, Paleoenvironments, Archaeology and the Peopling of the Americas. New York Academy of Sciences – Anthropology Section. New York, NY Dec. 5.
- 2016 Peopling the Americas: Ancient Genomes, Environments and Archaeology. University Forum, University of Nevada, Las Vegas. Las Vegas, NV Nov. 14.
- 2016 The Peopling of the Americas: Merging the Genetic, Archaeological, and Paleoenvironmental Records. Second City Anthropology Conference. Chicago, IL March 5.
- 2016 Genetics Overview and Summary: Beringian Standstill Workshop, Institute of Arctic and Alpine Research, University of Colorado, Feb. 27.
- 2015 Ancient Genomes and Population History in the North American Arctic. University of Nevada, Reno. 12 Nov.
- 2015 Non-destructive Ancient DNA Extraction and Sequencing. National NAGPRA Review Committee, Amherst, MA, March 4.
- 2014 A Genetic Prehistory of the Americas: Ancient DNA Perspectives on Colonization and Population History. Bold Aspirations Lecture, University of Kansas, Sept. 24.
- 2013 Molecular Approaches to Colonization and Population History: A Genetic History of the North American Arctic. Dept. of Anthropology, Ohio State University, Nov. 15.
- 2012 One if by Land, and Two if by Sea...? The Paleogeography of American Colonization and Dispersal. Cambridge Conference on High Altitude and Cold: Adaptation to Extremes. Cambridge University. Sept. 27-29.

Jack M. Broughton, R. Kelly Beck, J. B. Coltrain, Dennis H. O'Rourke and Alan R. Rogers

- 2012 Ancient DNA Analysis Confirms a Population Bottleneck in California Tule Elk (*Cervus elaphus nannodes*). Anthropology Forum, Department of Anthropology, California State University, Chico. 15 March.

**RECENT INVITED SYMPOSIA CONTRIBUTIONS (9/60)**

D.H. O'Rourke

- 2017 Genomic Signals of Pleistocene Beringian Refugia and Dispersals. IN: **Beringia and the Dispersal of Modern Humans in the Americas**. D.H. O'Rourke and John F. Hoffecker, organizers. AAAS meeting, Boston.

D.H. O'Rourke<sup>[1]</sup><sub>SEP</sub>

- 2016 Symposium Discussant: **Primer of the Ancient Mariner: New Perspectives on aDNA Research and the Prehistoric Colonization of Islands**. J.H. Stone and S.M. Fitzpatrick, organizers. Society for American Archaeology, Orlando, FL.

J. Tackney, A.M. Jensen, W.S. Watkins, E. Fair, J.B. Coltrain, D. Anderson and D.H. O'Rourke<sup>[1]</sup><sub>SEP</sub>

- 2016 Sweet aDNA O'Mine: The Rise and Fall of Ice Sheets and the Arctic Peopling from Beringia. IN: **Primer of the Ancient Mariner: New Perspectives on aDNA Research and the Prehistoric Colonization of Islands**. J.H. Stone and S.M. Fitzpatrick, organizers. Society for American Archaeology, Orlando, FL.

J. Tackney, A.M. Jensen, W.S. Watkins, E. Fair, J. Brenner-Coltrain, D. Anderson and D.H. O'Rourke

- 2016 Northern genomes: Ancient mitogenomes and arctic prehistory. IN: **Evolutionary Approaches to Bioarchaeology**. J.T. Watson and R.M. Byrd, organizers. American Association of Physical Anthropologists, Atlanta, GA.

J.H. Stone, D.H. O'Rourke, J. Tackney, J. Krigbaum, S. Burnett and S.M. Fitzpatrick

- 2015 Prehistoric Population Mobility in the Caribbean: Genetic and Isotopic Investigations at Grand Bay, Carriacou, West Indies. IN: **Migration and Mobility in the New World**, J.H. Stone and A.M. Offenbecker, organizers. Society for American Archaeology, April 15-19.

M.G. Hayes and D.H. O'Rourke

- 2015 Genetics of the Alaska North Slope: Past and Present. **North Slope Healthy Living Summit**, Barrow, AK.

D.H. O'Rourke

- 2013 Molecular Approaches to Colonization and Population History in the North American Arctic. IN: **Human Evolution: Adaptations, Dispersals and Social Developments. The First Peopling of the Americas and World Heritage Convention**, UNESCO. Puebla, Mexico, Sept. 2-7.

D.H. O'Rourke and M.G. Hayes

- 2013 Getting the Word Out: Community Consultation and Continuing Engagement in Anthropological Genetics Research. IN: **Evolution of Biological Anthropology: Defining a Future Discipline**, Graciela Cabana and Ben Auerbach, organizers. American Association of Physical Anthropologists, Knoxville, TN.

**CONTRIBUTED PAPERS (N=40)****STUDENTS SUPERVISED:**      PhD – 11              MA - 14**CURRENT STUDENTS:**              PhD – 5              MA – 2**COMMITTEES SERVED ON  
BUT NOT CHAIR**              PhD – 26              MA – 9