

# Jeffrey C. Long

## Educational History

University of Pittsburgh	Post-doc	1986	Biostatistics
Medical College of Virginia	Post-doc	1985	Human Genetics
University of Michigan, Ann Arbor	PhD	1984	Human Genetics
University of Michigan, Ann Arbor	MS	1982	Human Genetics
Arizona State University, Tempe	MA	1978	Anthropology
University of California at Santa Barbara	BA	1976	Anthropology (physical)

## Employment History

2015-2016	Associate Chair, Dept. of Anthropology, Univ. of New Mexico, Albuquerque
2013-	Professor Dept. of Biology, Univ. of New Mexico, Albuquerque (Secondary Appointment)
2009-	Professor (with tenure) Dept. of Anthropology, Univ. of New Mexico, Albuquerque
2003-2009	Adjunct Professor, Dept. of Anthropology, Univ. of Michigan, Ann Arbor.
2001-2009	Assoc. Director, Genome Sciences Training Program, Univ. of Michigan, Ann Arbor
2001-2009	Professor (with tenure), Dept. of Human Genetics, Univ. of Michigan, Ann Arbor.
1996-2001	Chief, Section on Population Genetics and Linkage, LNG, NIAAA, NIH, Bethesda, MD.
1995-2001	Senior Investigator (with tenure), NIH, Bethesda, MD
1992-1995	Special Expert, Lab. of Neurogenetics (LNG), NIAAA, NIH, Bethesda, MD.
1992-1995	Assoc. Prof., (with tenure) Dept. of Anthropology, Univ. of New Mexico, Albuquerque.
1987-1992	Assist. Prof., Dept. of Anthropology, Univ. of New Mexico, Albuquerque.
1986-1987	Assist. Prof., Dept. of Anthropology, Hunter College of CUNY.

## Other Experience and Professional Memberships

2017	NIH/CSR Special Emphasis Panel. Fellowships: Genes, Genomes, Genetics - J (Feb & Jul)
2016	NIH/CSR Special Emphasis Panel. Fellowships: Genes, Genomes, Genetics - J (Feb & Jul)
2015	NIH/CSR Special Emphasis Panel. Fellowships: Genes, Genomes, Genetics - J (Feb & Oct)
2014	Chair, NIH/CSR Genetic, Variation and Evolution Review Panel (Jun) ZRG1 GGG-T (02)
2013	NHGRI Special Emphasis Panel. H3 Africa Initiative – (Feb)
2012-2015	Member Working Group of the Federal Advisory Committee on Genomics and Society
2012-Current	Editorial Board <i>Yearbook of Physical Anthropology</i>
2012-Current	Editorial Board <i>Journal of Anthropological Research</i>
2012	NIH/CSR Genomics, Computational Biology, and Technology Study Section (Oct)
2012	NHGRI Special Emphasis Panel. H3Africa Initiative – (Mar)
2011	NIH/CSR Genetic, Variation and Evolution Review Panel (Jun)
2010	ZRG1 GGG-N (02) M Gene Discovery and Gene Function (Oct)
2010	NIH/CSR Special Emphasis Panel. Genes, Genomes, Genetics - J (July)
2009	NIH/CSR Special Emphasis Panel. Genes, Genomes, Genetics - J (Mar & Oct)
2008	NIH/CSR Special Emphasis Panel. Genes, Genomes, Genetics - J (Mar)
2005-2008	Member Federal Advisory Committee for National Children's Study.
2004-2005	Member NSF Advisory Panel for Human Origins
2004-2007	Member Working Group of the NIGMS Human Genetic Cell Repository
2006	NIDA Special Emphasis Panel. RFA DA06-007, Epigenetics of Neurobiology of Addiction.
2004-2005	Member NIH Genetic Variation and Evolution Study Section.
2003-2006	Program Committee Member, The American Society of Human Genetics
2001-2004	Member NIH Mammalian Genetics Study Section.

- 2000-2005 External Advisory Board, National Human Genome Center at Howard University
- 1999-2003 NIH/NHGRI Center for Inherited Disease Scientific Access Committee.
- 1999-2002 Associate Editor, *Molecular Biology and Evolution*.
- 1998-2001 NIAAA Institutional Review Board
- 1996 National Science Foundation Human Genome Diversity Advisory Panel.
- 1993 – 1996 National Science Foundation Physical Anthropology Advisory Panel.

### Professional Recognition and Honors

- 2003 Gabriel Lasker Award for best paper published in the journal Human Biology
- 1999 NIAAA EEO Special Achievement Award.
- 1986 Travel Award to attend the VII International Congress of Human Genetics, held in Berlin September 1986, Awarded by the American Society of Human Genetics.
- 1983 Rackham Dissertation Grant, University of Michigan
- 1980 NIH Predoctoral Trainee, Genetics (4 yrs.)
- 1977 Tuition Fellowship, Arizona State University.
- 1976 BA with honors, University of California at Santa Barbara

### Personal Statement

My research is in the discipline of human population genetics. I have conducted studies on evolution, the genetics of psychiatric disorders, and statistical genetics. Currently, I am most engaged in studies of evolution and statistical genetics. My research focuses on the distribution of DNA sequence variation among people throughout the world. I relate this variation to processes such as founder effects, introgression with archaic hominids, and local patterns of gene flow and admixture. I have contributed to subjects such as race and genetic ancestry testing as a broader impact of primary research project. I believe that my research will help unravel the role of genetic diversity in health and fitness. I am engaged with my graduate students and colleagues in studies on the contribution of population admixture to genetic distance.

In the past three years, I have devoted much of my scholarly effort to writing a book entitled '*Integrative Human Biology and Evolution*'. This book presents a unique problem-oriented approach that facilitates outcomes assessment in university education.

### Articles in Refereed Journals or Refereed Books

- Koehl AJ, Long JC (2017) The contributions of admixture and genetic drift to diversity among post-contact populations in the Americas. *Am J Phys Anthropol*. DOI: 10.1002/ajpa.23347 Early View: 30 October 2017
- KL Hunley, Cabana GS, Long JC (2016) The apportionment of human diversity revisited *Am J Phys Anthropol* 160 (4), 561-569
- Young BN, Burgos M, Handal AJ, Baker J, Rendón A, Rosas-Taraco A, Long J, Hunley K (2014) Social and clinical predictors of drug-resistant tuberculosis in a public hospital, Monterrey, Mexico. *Ann Epidemiol*. 2014 Oct;24(10):771-5.
- Young BN, Rendón A, Rosas-Taraco A, Baker J, Healy M, Gross JM, Long J, Burgos M, Hunley KL. (2014) The effects of socioeconomic status, clinical factors, and genetic ancestry on pulmonary tuberculosis disease in northeastern Mexico. *PLoS One*. 2014 Apr 11;9(4):e94303. doi: 10.1371/journal.pone.0094303. eCollection 2014.
- Long JC (2013) The *AIMLESS* genome. Accepted for publication (proofs available), *The Anthropology of Race: Genes, Biology, and Culture*. Edited by John Hartigan. School of Advanced Research.
- Long JC, Cátira Bortolini M. (2011) New developments in the origins and evolution of Native American populations. *Am J Phys Anthropol*. 2011 146: 491-494.

- Lisabeth LD, Morgenstern LB, Burke DT, Sun YV, Long JC. (2011) Ancestral heterogeneity in a biethnic stroke population. *Ann Hum Genet.* 2011 Jul;75(4):508-15.
- Royal CD, Novembre J, Fullerton SM, Goldstein DB, Long JC, Bamshad MJ, Clark AG. Inferring genetic ancestry: opportunities, challenges, and implications (2010). *Am J Hum Genet.* May 14;86(5):661-73.
- Long JC (2009) Update to Long and Kittles's "Human Genetic Diversity and the Nonexistence of Biological Races": Fixation on an Index, *Human Biology* 5-6: 799-803.
- Jester JM, Nigg JT, Puttler LI, Long JC, Fitzgerald HE, Zucker RA (2009) Intergenerational transmission of neuropsychological executive functioning. *Brain and Cognition*, 70: 145-53.
- Weiss KM, Long JC. (2009) Non-Darwinian Estimation: My Ancestors, My Genes' Ancestors *Genome Research*, 19: 703-710.
- Long JC, Li J, Healy ME. (2009) Human DNA sequences: more variation and less race. *Am J Phys Anthropol* 139: 23-34
- Hunley KL, Healy ME, Long JC (2009) The Global Pattern of Gene Identity Variation Reveals a History of Long-Range Migrations, Founder Effects and Local Mate Exchange: Implications for Biological Race. *Am J Phys Anthropol*, 139: 35-46.
- Lisabeth LD, Peyser PA, Long JC, Majerisk MD, Smith MA, Morgenstern LB. (2008). Stroke Among Siblings in a Biethnic Community. *Neuroepidemiology* 31: 33-8.
- Lewis, CM Jr, Long JC (2008) Native South American Genetic Structure and Prehistory Inferred from Hierarchical Modeling of mtDNA. *Mol Biol Evol* 25(3): 478 – 486
- Cole SM, and Long JC (2008) A coalescent simulation of marker selection strategy for candidate gene association studies. *Am J Med Genet. (Neuropsych Genet.)*, 147: 86-93.
- Schroeder KB, Schurr TG, Long JC, Rosenberg NA, Crawford MH, Tarskaia LA, Osipova LP, Zhadanov SI, and Smith DG (2007) A private allele ubiquitous in the Americas. *Biol Lett* 3:218-23.
- Pomerleau OF, Burmeister M, Madden P, Long JC, Swan GE, and Kardia SL (2007) Genetic research on complex behaviors: an examination of attempts to identify genes for smoking. *Nicotine Tob Res* 9:883-901.
- Marrero AR, Bravi C, Stuart S, Long JC, Pereira das Neves Leite F, Kommers T, Carvalho CM, Pena SD, Ruiz-Linares A, Salzano FM, and Catira Bortolini M (2007) Pre- and post-Columbian gene and cultural continuity: the case of the Gaucho from southern Brazil. *Hum Hered* 64:160-71.
- Hunley KL, Cabana GS, Merriwether DA, and Long JC (2007) A formal test of linguistic and genetic coevolution in native Central and South America. *Am J Phys Anthropol* 132:622-631.
- Lorenz JG, Long JC, Linnoila M, Goldman D, Suomi SJ, Higley JD (2006) Genetic and other contributions to alcohol intake in rhesus macaques (*Macaca mulatta*). *Alcohol Clin Exp Res.* 2006 Mar;30(3):389-98.
- Lemmerhirt HL, Shavit JA, Levy GG, Cole SM, Long JC, Ginsburg D (2006) Enhanced VWF biosynthesis and elevated plasma VWF due to a natural variant in the murine Vwf gene. *Blood.* 2006 108: 3061-7;
- Barnholtz-Sloan JS, Pfaff C, Chakraborty R, Long JC (2005) Informativeness of the CODIS STR loci for admixture analysis. *Journal of Forensic Sciences*, 50: 1322-1327.
- Hunley KL, Long JC (2005) Gene flow across linguistic boundaries in Native North American populations. *Proc Natl Acad Sci (USA)*, 102:1312-1317.
- Radel M, Vallejo RL, Iwata N, Aragon R, Long JC, Virkkunen M, Goldman D (2005) Haplotype-based localization of an alcohol dependence gene to the 5q34 GABAA gene cluster. *Arch Gen Psychiatry* 62:47-55.
- Mulligan C, Hunley K, Cole S, Long JC (2004) Population Genetics, History and Health Patterns in Native Americans. *Annu. Rev. Genomics Hum. Genet.* 5:295–315.
- International HapMap Consortium (2004) Integrating ethics and science in the International HapMap Project. *Nature Reviews Genetics*, 5: 467-475.
- Pfaff CL, Barnholtz-Sloan J, Wagner JK, Long JC (2004) Information on ancestry from genetic markers. *Genetic Epidemiology*, 26: 305-315.
- The International HapMap Consortium (2003) The International HapMap Project. *Nature* 426: 789-796.
- Niell BL,, Long JC, Rennert G, Gruber SB (2003) Genetic anthropology of the colorectal cancer susceptibility allele APC I1307K. *Am J Hum Genet.* 73: 1250-1260.
- Hink RL, Hokanson JE, Shah I, Long JC, Goldman D, Sikela JM (2003) Investigation of DUSP8 and CALCA in alcohol dependence. *Addiction Biology*, 8: 301-309.

- Mulligan CJ, Robin RW, Osier MV, Sambuughin N, Goldfarb LG, Kittles RA, Hesselbrock D, Goldman D, Long JC (2003) Allelic variation at alcohol metabolism genes (*ADH1B*, *ADH1C*, *ALDH2*) and alcohol dependence in an American Indian population. *Human Genetics*. 113:325-336.
- Long JC, Kittles RA (2003) Human genetic diversity and the non-existence of biological races. *Human Biology*, 75:449-471.
- Long JC, Lorenz JG: (2002) Genetic polymorphism and American Indian health. *West J Med*. 2002; 176:203-205.
- Bennett AJ, Lesch KP, Heils A, Long JC, Lorenz JG, Shoaf SE, Champoux M, Suomi SJ, Linnoila MV, Higley JD. (2002) Early experience and serotonin transporter gene variation interact to influence primate CNS function. *Mol Psychiatry*. 7(1):118-22.
- Saremi A, Hanson RL, Williams DE, Roumain J, Robin RW, Long JC, Goldman D, Knowler WC (2001) Validity of CAGE questionnaire in an American Indian Population. *J Stud Alcohol*. 62(3):294-300.
- Fahlke C, Lorenz JG, Long J, Champoux M, Suomi SJ, and Higley JD: Rearing Experiences and Stress-Induced Plasma Cortisol as Early Risk Factors for Excessive Alcohol Consumption in Nonhuman Primates. *Alcohol Clin Exp Res*, 24: 644-650, 2000.
- Williams RC, Long JC, Hanson R, Sievers ML, Knowler WC: Individual estimates of European genetic admixture associated with lower risks of type 2 diabetes and quantitative predictors of hyperglycemia and obesity in Pima Indians. *Am J Hum Genet*, 66: 527-538, 2000.
- Peterson, R, Goldman D, Long JC: Effects of worldwide population subdivision on *ALDH2* linkage disequilibrium. *Genome Research* 9:844-852, 1999.
- Lappalainen J, Long JC, Virkkunen M, Ozaki N, Goldman D, Linnoila M: *HTR2C* Cys23Ser polymorphism in relation to CSF monoamine metabolite concentrations and DSM-III-R psychiatric diagnoses. *Biol Psychiatry* 46:821-826, 1999.
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- Peterson, R, Goldman D, Long JC: Nucleotide Sequence Diversity in Non-Coding Regions of *ALDH2* as Revealed by Restriction Enzymes and SSCP. *Human Genetics* 104: 177-187, 1999.
- Kittles RA, Long JC, Bergen AW, Eggert M, Virkkunen M, Linnoila M, Goldman D: Cladistic analysis of Y chromosome effects on alcoholism and related personality traits. *Proc. Natl. Acad. Sci. USA* 96 :204-299, 1999.
- Karafet TM, Zegura SL, Osipova L, Posuky O, Wiebe V, Klitz W, Bergen A, Long J, Harihara S, de Kniff P, Griffiths RC, Templeton AR, Hammer MF: New World Y chromosome founder haplotypes and the peopling of the Americas. *Am J Hum Genet*. 64: 817-831, 1999.
- Robin RW, Long JC, Rasmussen JK, Albaugh B, Goldman D: Relationship of binge drinking to alcohol dependence, other psychiatric disorders, and behavioral problems in an American Indian tribe. *Alcohol Clin Exp Res*, 22 : 518-523, 1998
- Lee HS Sambuughin N, Cervenakova L, Chapman J, Pocchiari M, Litvak S, Qi HY, del Ser T, Furukawa H, Brown P, Gajdusek DC, Long JC, Korczyn AD, Goldfarb LG: Ancestral origins and worldwide distribution of the PRNP 200K mutation causing familial Creutzfeldt-Jakob disease. *Am J Hum Genet*. 64: 1063-1070, 1999.
- Long JC, Knowler WC, Hanson RL, Robin RW, Urbanek M, Moore E, Bennett PH, Goldman D: Evidence for Genetic Linkage to Alcohol Dependence on Chromosomes 4 and 11 from and Autosome-wide Scan in an American Indian Population. *Am J Med Genet. (Neuropsychiatric Genetics)* 81: 216-221, 1998.
- Long JC, Romero FC, Urbanek M, Goldman D: Mating patterns and gene dynamics of an American Indian population isolate. *Journal of Mammalogy*, 79(3): 681-691, 1998.
- Kittles RA, Perola M, Peltonen L, Bergen AW, Aragon RA, Virkkunen M, Linnoila M, Goldman D, Long JC: Dual origins of Finns revealed by Y chromosome haplotype variation. *Am J Hum Genet*. 62: 1171-1179, 1998.
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- Nielsen DA, Virkkunen M, Lappalainen J, Eggert M, Brown GL, Long JC, Goldman D, Linnoila M: A tryptophan hydroxylase gene marker for suicidality and alcoholism. *Arch Gen Psych* 55: 593-602, 1998.
- Mazzanti CM, Lappalainen J, Long JC, Naukkarinen H, Eggert M, Virkkunen M, Linnoila M, Goldman D: Role of the serotonin transporter promoter polymorphism in anxiety-related traits. *Arch Gen Psychiatry*, 55:936-940, 1998.
- Lappalainen J, Long JC, Eggert M, Ozaki N, Robin RW, Brown GL, Naukkarinen H, Virkkunen M, Linnoila M, Goldman D: Linkage of antisocial alcoholism to the serotonin 5-HT1B receptor gene in two populations. *Arch Gen Psychiatry*, 55(11):989-94, 1998.

- Sugg D, Chesser, RK Long JC: Assessment of genetic information in morphometric traits: geographic patterns and evolutionary interpretations. *Journal of Mammalogy*, 78(2) 405-416, 1997.
- Goldman, D, Urbanek, M, Guenther, D, Robin, R, Long, JC: The dopamine D2 receptor: linkage and association of a functional allele [Ser311Cys] and other D2DR markers to alcoholism, substance abuse, and schizophrenia in Southwestern American Indians. *Am J Med Genet. (Neuropsychiatric Genetics)* 74:386-394, 1997.
- Karafet, T, Zegura, S, Vuturo-Brady, J, Posukh, O, Osipova, L, Wiebe, V, Romero, F, Long, JC, Harihara, S, Feng, J, Bumbein, D, Gerelsaikhan, T, Omoto, K, Hammer, MF: Male-mediated migrations across the Bering Strait *Am J Phys Anthropol* 102: 301-314, 1997.
- Bergen AW, Kokoszka J, Peterson RJ, Long JC, Linnoila M, Goldman D: Ala6Val and Asn40Asp variants of the human  $\mu$ -opioid receptor gene: lack of association with alcohol and drug dependence. *Molecular Psychiatry*, 2: 490-449, 1997.
- Ricketts MH, Goldman D, Long JC, Manowitz P: Arylsulfatasae A pseudodeficiency- associated mutations: Population studies and identification of a novel haplotype. *Am. J. Med. Genet. (Neuropsychiatric Genetics)* 67: 387-392, 1996.
- Urbanek M, Goldman D, Long JC The apportionment of dinucleotide repeat diversity in Native Americans and Europeans: a new approach to measuring gene identity reveals asymmetric patterns of divergence. *Mol Biol Evol* 13: 943-953, 1996.
- Long JC, Williams RC, Urbanek M An E-M algorithm and testing strategy for multiple locus haplotypes. *Am J Hum Genet.* 56: 799-810, 1995.
- Novoradovsky A, Tsai S-J L, Goldfarb L, Peterson R, Long JC, Goldman D: Mitochondrial aldehyde dehydrogenase polymorphism in Asian and American Indian populations: detection of new ALDH2 alleles. *Alcohol Clin and Exp Res* 19: 1105-1110, 1995.
- Goldman, D, Brown, GL, Albaugh, B, Robin, R, Goodson, S, Trunzo, M, Akhtar, L, Lucas-Derse, S, Long, J, Linnoila, M, Dean, M: DRD2 dopamine receptor genotype, linkage disequilibrium and alcoholism in American Indian and other populations. *Alcohol Clin Exp Res*, 17: 199-204, 1993.
- Long JC: Human molecular phylogenetics. *Annu Rev Anthropol* 22: 251-272, 1993.
- Williams RC, Knowler WC, Pettitt DJ, Long JC, Rokala DA, Polesky HF, Hackenberg RA, Steinberg AG, Bennett PH: Tracing the origin of european admixture in the Gila River Indian Community of Arizona: A union of genetics and demography. *Am J Hum Genet*, 51: 101-110, 1992.
- Smouse PE, Long JC: Matrix correlation analysis in anthropological/genetic context: An expository review. *Yearbook of Physical Anthropology* , 35:187-213, 1992.
- Franciscus RG, Long JC: Variation in human nasal height and breadth. *Am J Phys Anthropol* 85: 419-428, 1991.
- Long JC, Williams RC, McAuley JE, Medis R, Partel R, Tregellas WM, South S, Rea AE, McCormick SB, Iwaniec U: Genetic variation in Arizona Mexican Americans: Estimation and interpretation of admixture proportions. *Am J Phys Anthropol* 84: 141-157, 1991.
- Long JC: The genetic structure of admixed populations. *Genetics*, 127: 417-428, 1991.
- Long JC, Chakravarti A, Boehm CD, Antonarakis S, Kazazian HH Phylogeny of human  $\beta$ -globin haplotypes and its implications for recent human evolution. *Am J Phys Anthropol* 81: 113-130, 1990
- Trinkaus E, Long JC: Species attribution of the Swartkrans member 1 first metacarpals: SK 84 and SKX 5020. *Am J Phys Anthropol* 83: 419-424, 1990.
- Long JC: The uses of molecular biology: Understanding the basis of disease, determining evolutionary pathways, and other applications. *Am J Hum Biol* 1: 505-507, 1989.
- Long JC, Nance WE, Waring P, Burmeister JA, Ranney RR: Early Onset Periodontitis: A comparison and evaluation of two proposed modes of inheritance. *Genetic Epidemiology*, 4: 13-24, 1987.
- Long, JC, Smouse PE, Wood JW: The structure of allelic correlations in Gainj and Kalam speakers of highland New Guinea. II. Genetic distances between population subdivisions. *Genetics*, 117: 273 – 283, 1987.
- Long JC: The structure of allelic correlations in Gainj and Kalam speakers of highland New Guinea. I. Estimation and interpretations of Wright's F-statistics. *Genetics*, 112: 629-647, 1986.
- Smouse, PE, Long JC, Sokal RR: Multiple regression and correlation extensions of the Mantel test of matrix correspondence. *Syst Zool*, 35: 627-632, 1986.
- Long JC, Naidu KM, Gershowitz H, Johnson P, Mohrenwieser H, Smouse PE, Wood JW: Population structure and genetic characteristics of Gainj and Kalam speakers of the New Guinea highlands. *Am J Phys Anthropol*, 70: 75-96, 1986.

- Eaves LJ, Long J, Heath AC: A theory of developmental change in quantitative phenotypes applied to cognitive development. *Behav Genet*, 16: 143 – 162, 1986.
- Wood JW, Smouse PE, Long JC: Sex specific dispersal patterns in two human populations of highland New Guinea. *Am Nat*, 125: 747-768, 1985.
- Long JC, Smouse PE: Intertribal gene flow between the Ye'Cuana and Yanomama: Genetic analysis of an admixed village. *Am J Phys Anthropol*, 61: 410-422, 1983.
- Walker PL, Long JC: Experimental analysis of butcher marks on archaeologically derived bone. *American Antiquity*, 34: 110 – 126, 1977.

### Articles in Refereed Encyclopedia

- Long, Jeffrey C. (2018). Gene Genealogy in *The International Encyclopedia of Biological Anthropology*, Wenda Trevathan (ed). John Wiley and Sons, Inc. (In press).
- Long, Jeffrey C. (2018). Heritability in *The International Encyclopedia of Biological Anthropology*, Wenda Trevathan (ed). John Wiley and Sons, Inc. (In press).
- Long, Jeffrey C. (2018). Livingstone, Frank in *The International Encyclopedia of Biological Anthropology*, Wenda Trevathan (ed). John Wiley and Sons, Inc. (In press).
- Long, Jeffrey C. (2018). Spuhler, James N in *The International Encyclopedia of Biological Anthropology*, Wenda Trevathan (ed). John Wiley and Sons, Inc. (In press).

### Chapters in Books and Conference Proceedings

- Long, JC (2006) Admixture. In *Environment, Origins, Population*. D. Ubelaker, ed. Pp. 799-807. *Handbook of North American Indians*, Vol. 3. Environment, Origins, and Population. Washington, DC: Smithsonian Institution.
- Long JC, Scott N, Lewis C Jr (2006) Race in Genetics and Health, in *Encyclopedia of Race and Racism* edited by John Moore, MacMillian Reference.
- Long JC (2005) Commentary on Ethical Conduct of Research in Bioanthropology. In, *Biological Anthropology and Ethics* edited by Trudy R. Turner, SUNY Press. pp 275 – 280.
- Long JC, Mail P, Thommasson H (2002) Genetic Susceptibility and Alcoholism in American Indians, in *Alcohol Use Among American Indians and Alaska Natives: Multiple Perspectives on a Complex Problem*. NIAAA Research Monograph No. 37. Edited by Mail, PD, Heurtin-Roberts, S, Martin, SE and Howard, J., National Institutes of Health, Bethesda.
- Long JC (2001) Is there a research imperative? Population genetic analysis of alcoholism. In *Continuing the Dialogue: Genetic Research with Aboriginal Individuals and Communities*. Proceedings of a Workshop sponsored by the Canadian Commission for the United Nations Educational, Scientific and Cultural Organization (UNESCO), Health Canada, and The National Council on Ethics in Human Research. Edited by Kathleen Cranley Glass and Joseph Kaufert. pp 63 – 69.
- Long JC, Lorenz JG (2000) Genetic polymorphism and American Indian origins, affinities, and health. Chapter 8 in 'The Health of American Indians and Alaska Natives' edited by Everett Rhoades, MD, Johns Hopkins University Press: Baltimore. pp 122-137.
- Smouse PE, Long JC (1988) A comparative F-statistics analysis of genetic structure of human populations from lowland South America and highland New Guinea. In, *Proceedings of the 2-nd International Conference on Quantitative Genetics*, B.S. Weir, E.J. Eisen, M.M. Goodman, and G. Namkoong, Eds.. Sinauer and Associates, Sunderland Ma. pp. 32 – 46.
- Long JC, Merbs, CF (1981) Coccidioidomycosis: a primate model. In *Prehistoric Tuberculosis in the New World*, Jane Buikstra, editor. Northwestern University Archaeology Program. Scientific Publication Number 5. pp. 69 – 84.

### Publications: (Web Publication/Presentations)

- Long JC (2007) Race in Genetics and Medicine. Henry Stewart Talks. <http://www.hstalks.com/evomed/>
- Long JC (2006) Human Genetic Variation: The Mechanisms and Results of Microevolution. Exploring the nature of

human biological diversity: Myth v. Reality, organized by the AAA Public Education Initiative on Race and Human Variation. [http://www.understandingrace.org/resources/pdf/myth\\_reality/long.pdf](http://www.understandingrace.org/resources/pdf/myth_reality/long.pdf)

### **Book Reviews:**

*The Myth of Race: The troubling persistence of an unscientific idea.* By Robert W. Sussman, Harvard University Press, (2015) *Am J of Hum Biol.* DOI: 10.1002/ajhb.22790

*Human Evolutionary Biology*, Edited by Michael Muehlenbein. *Quarterly Review of Biology*, 87(Dec 2012): 385.

*The Double-Edged Helix: Social Implications of Genetics in a Diverse Society*, Edited by Joseph S. Alper, Catherine Ard, Adrienne Asch, Jon Beckwith, Peter Conrad, and Lisa Geller. *New England Journal of Medicine*, 348 (2003): 1825-1826.

*Genetic Data Analysis* by B.S. Weir. *Am. J. Phys. Anthropol.* (1991) 85: 470-471.0

*Evolutionary Perspectives and the New Genetics*, edited by H. Gershowitz, D. Rucknagel, and R. Tashian. New York: Alan R. Liss, Inc. J.C. Long. *Journal of Human Evolution*, 18 (1989): 285 - 287.

*Basic Concepts in Population, Quantitative, and Evolutionary Genetics* by J.F. Crow. New York: Freeman and Co. J. C. Long. *Journal of Human Evolution*, 18 (1989): 412 - 414.

*Evolutionary Genetics*, by M. Nei. New York: Columbia University Press. J.C. Long. *Bulletin of Mathematical Biology*, 51 (1989): 545-546.

### **Letters to Editors:**

Reply: Association between a functional polymorphism at the DRD2 gene and the liability to substance abuse. Goldman D, Urbanek M, Guenther D, Robin R, Long JC (1999) *Am J Med Genet (Neuropsychiatric Genetics)* 88: 446-447.

Reply: DNA Wars. Goldman, D, Long, JC, (1995) *Nature*, 373: 99.

### **Works in Progress:**

Koehl AJ, Long JC (2017) Identifying Source Populations in Genetic Ancestry Studies. Manuscript completed. Will be submitted to *Human Biology*.

### **Research Funding:**

- 1987 Conference Grant from the Wenner-Gren Foundation for Anthropological Research. Conference title "Uses of molecular biology: the basis of genetic disease and determining pathways". Dr. W.S. Pollitzer, University of North Carolina, Co-organizer.
- 1987 Biomedical Research Support Grant, office of the Vice President of Research, UNM. for "The estimation of genetic contributions from ancestral populations to hybrid individuals and populations".
- 1990 Biomedical Research Support Grant, office of the Vice President of Research, UNM. for "Demographic and molecular population genetic studies of Southwestern Indian Tribes".
- 1991 National Science Foundation, BNS-9108422, for "Molecular and demographic population genetic studies of Southwestern Indian Tribes". JC Long (Principal Investigator), Co- Investigators David Goldman, MD (National Institutes of Health), and Charles North, MD (Indian Health Services). Total Award \$66,000.

National Institutes of Health Intramural Research Program (Funded Research Projects 1992- 2001)

1. Gene Mapping and Linkage Studies with Short Tandem Repeat (STR) Markers (Principal Investigator).
2. Statistical Genetics of Linked Multi-allelic Loci. (Principal Investigator).
3. Population Genetics of Native American Tribes (Principal Investigator). The data collection phases of this project were funded by a grant from the National Science Foundation.
4. Molecular Genetics Studies on Alcoholism in American Indians (Associate Investigator).

5. Genetic Studies of the Electroencephalogram and Event-Related Potentials (Associate Investigator).
6. Molecular Genetic Studies of Disturbed Serotonin Function (Associate Investigator).
7. An American Indian Tribe with Low Alcoholism Prevalence: Transmission Analysis, Linkage Analysis and Gene/Environment Interactions. (Principal Investigator)

2001-2009 NIH/NHGRI T32-HG-00040 (Boehnke, PI)

Genome Sciences Training Program

Role: Associate director. Recruitment and retention of underrepresented minority students, 10% salary support.

2003-2006

NSF 0321610

Allelic Variability and Tests for Signatures of Natural Selection at the Human ALDH2 Locus

The goal of this project is to test for natural selection at the ALDH2 locus by analyzing nucleotide sequence variation within and between genomic regions, within and between populations, and between species (Total Award \$330,000).

Role: Principal Investigator

2006-2007

UM Head and Neck SPORE

Project Title: Role of Alcohol Metabolizing Genes in Head and Neck Squamous Cell Carcinoma Recurrence and Survival. (Total Award, \$45,000)

Role: (Co-PI Jeffrey Long with Sonia Duffy)

2007-2009

UM Endowment for Biological Sciences

Two Projects: 1. Developmental genetics of alcoholism. 2. Population structure and tests for natural selection. (Total Award \$85,000)

Role: Principal Investigator

2009-2012

NSF 0850997

Project Title: Pattern and Process in Human DNA Sequence Variation (Total Award, \$264,000)

Role: Principal Investigator

2010

Wiley-Blackwell Sponsorship for Symposium at 2010 AAPA meeting.

American Association of Physical Anthropologists awarded \$6,500 to the symposium "New Developments in the Origins and Evolution of Native American Populations" organized Jeffrey C. Long and Maria Catira Bortolini (Department of Genetics, UFRDS, Brazil).

2012-2013

NSF 0850997

Project Title: Pattern and Process in Human DNA Sequence Variation

One-year no-cost extension.

Role: Principal Investigator

### **Field Data Collection Experience:**

1983

Six months collection of blood, anthropometric, and demographic data, highland New



Guinea, Institute of Medical Research, Papua New Guinea.

1991-1993

Principal Investigator, Collection of blood samples and demographic data on numerous Southwestern Indian tribes, USA.

1996-1997

Principal Investigator and Project officer for An American Indian Tribe with Low Alcoholism Prevalence: Transmission Analysis, Linkage Analysis and Gene/Environment Interactions, oversaw collection of psychiatric interviews, demographic data, and blood samples from Choctaw Indians.

### **Courses Taught:**

(University of New Mexico)

Advanced Analytical Methods  
Anthropological Genetics  
Darwinism and Modern Genetics  
Evolution and Human Emergence  
Evolutionary Genetics  
Human Biology  
Human Demography  
Human Development  
Human Genetics  
Molecular Evolution  
Population Genetics  
Quantitative Methods  
Research Computation in Evolutionary Anthropology  
Statistical Concepts and Data Analysis

*(George Washington University):*

Population Genetics

*(University of Michigan):*

Statistical Models and Numerical Methods in Human Genetics (Biostatistics 666)  
Basic Concepts in Population and Statistical Genetics (Human Genetics 544)  
General Genetics (Biology 305)

*(Guest Faculty, various institutions)*

Course/workshop DIVERSIDAD GENÓMICA EN HUMANOS Y PATÓGENOS, sponsored by Universidad Nacional San Antonio Abad del Cusco and Universidad de San Martín de Porres de Lima October 9, 2003.

Mathematical and Theoretical Biology Institute (ASU/Los Alamos Laboratories), 2003, 2004, 2005, 2006, 2007, 2008. One week each year, I deliver lectures on population genetics, genomics, and evolution. MTBI is targeted for underrepresented minority college students majoring in mathematics and biology.

Course/workshop Population Genetics and Genetic Epidemiology, Federal University RioGrande do Sol, Brazil July 24 – Aug 4, 2006.

University of Arizona - Summer Internship for Indigenous Peoples in Genomics (SING). Organized by Ripan Malhi

(U of Illinois) and Francine Gauchipin (U of Arizona). Guest faculty. Lectures in Bioinformatics. July 2017

## Past and Current Advisees

### NIH K-Award Mentor

Jaakko Lappalainen, MD, PhD, Department of Psychiatry, Yale University School of Medicine.

Lynda Lisabeth, PhD, Department of Epidemiology, School of Public Health University of Michigan, Ann Arbor

### Post-Doctoral advisement/direction (Major Advisor):

Margrit Urbanek, Ph.D. (NIAAA post doctoral IRTA), 1993-1996, Currently Associate Professor of Human Genetics, Northwestern University School of Medicine

Jaakko Lappalainen, M.D.,Ph.D. (Fogarty Fellow), 1996-1997, Biotechnology, Stockholm Sweden

Joe Lorenz, Ph.D. (NIAAA post doctoral IRTA), 1997-2000, Currently Associate Professor, Central Washington University

Connie Mulligan, Ph.D. (Senior National Research Council Fellow), 1998-2000, Currently, Professor of Anthropology, University of Florida

Roger Vallejo, Ph.D. (Senior Research Fellow), 1997-2000, Currently, Computational Biologist, US Department of Agriculture.

Carrie Pfaff, Ph.D. (post doctoral fellow) 2001-2003, Currently in private law practice.

Ripan Malhi Ph.D. (post doctoral fellow) 2001-2002, Currently, Professor of Anthropology, University of Illinois

Keith Hunley Ph.D. (post doctoral fellow) 2002-2004, Currently, Associate Professor of Anthropology, University of New Mexico

Suzanne Cole Ph.D. (post doctoral fellow) 2002-2005, Currently Lecturer III in Public Health, University of Michigan

Cecil Lewis Ph.D. (post doctoral fellow) 2005-2007, Currently, Professor of Anthropology, University of Oklahoma

### Ph.D. advisement/direction (Major Advisor)

Ricky A Kittles, PhD Awarded January 1998, Biology, George Washington University, Currently, Professor of Human Genetics, University of Arizona

Raymond Peterson, PhD Awarded July 1998 Biological Anthropology and Genetics, Penn State University, Currently, Chairman & Chief Scientific Officer, Celadon Laboratories.

Francine Romero , PhD Awarded December 1998, Biosocial Anthropology, University of New Mexico, Currently Director, Assistant Professor of Epidemiology, University of Arizona.

Nicole Scott, PhD Awarded 2011, Human Genetics, University of Michigan, Currently, Post-doc Human Genetics, University of Chicago.

Tony Koehl, Anthropology, University of New Mexico, PhD 2016.

Sara Niedbalski, University of New Mexico, PhD in progress.

### Ph.D. advisement/direction (Committee Member Current and Past)

Jatna Supriata, Biological Anthropology, University of New Mexico, Ph.D, 1988

Robert Tompkins, Biological Anthropology, University of New Mexico, Ph.D. 1991

Samerchai Poolswan, Biological Anthropology, University of Michigan, Ph.D, 1991

Steve Byers, Biological Anthropology, University of New Mexico, Ph.D. 1992

Michael Alvard, Biosocial Anthropology, University of New Mexico, Ph.D. 1992

Derrick Suggs, Biology, University of New Mexico, Ph.D. 1992

Charles Hilton, Biological Anthropology, University of New Mexico, Ph.D. 1994

Trenton Holliday, Biological Anthropology, University of New Mexico, Ph.D. 1995

Elizabeth Hare, Genetics, George Washington University, Ph.D. 1998

Bethany Neill, Epidemiology, University of Michigan, Ph.D. 2003  
 Srijan Sen, Neuroscience, University of Michigan, Ph.D. 2003  
 Tasha Fingerlin, Epidemiology, University of Michigan, Ph.D. 2003  
 Steve Albee-Scott, Ecology and Evolutionary Biology, University of Michigan, Ph.D. 2005  
 Kate Teeter, Ecology and Evolutionary Biology, University of Michigan, Ph.D. 2005  
 Xiaoxia Wang, Ecology and Evolutionary Biology, University of Michigan, Ph.D. 2006  
 Matt Chatterfield, Ecology and Evolutionary Biology, University of Michigan, Ph.D. 2008  
 Tim Connalon, Ecology and Evolutionary Biology, University of Michigan, Ph.D. 2009  
 Kari Britt Schroeder, Anthropology, UC Davis, Ph.D. 2009  
 Meg Bakewell, Ecology and Evolutionary Biology, University of Michigan, Ph.D. 2010  
 Cris Van Hout, Human Genetics, University of Michigan, Ph.D. 2011  
 Bonnie Young, Anthropology, University of New Mexico, Ph.D. 2012  
 Huateng Huang, Ecology and Evolutionary Biology, University of Michigan,  
 Jenna Van Liere, Bioinformatics, University of Michigan, Medical Student, U. Michigan  
 Libby Beckman, Biology, University of New Mexico, PhD Completed 2016  
 Natalie Wright, Biology, University of New Mexico, PhD Completed 2016  
 Lijing Bu, Biology, University of New Mexico, PhD Completed 2017  
 David Camak, Biology, University of New Mexico, In progress  
 Chauncey Gadek, Biology, University of New Mexico, In progress

### Invited Talks (Past 10 years)

Southwest Seminars, Santa Fe New Mexico, January, 2014, Talk Title: Genetic Ancestry and Human Origins.  
 Ancestors Lecture, Maxwell Museum of Anthropology, Albuquerque, February 2014, Talk Title: *Genetic Ancestry Testing: The Genes of Our Ancestors and the Ancestors of Our Genes*  
 Plenary Speaker Human Biology Association annual meetings, April 10, 2013.  
 Southwest Seminars, Santa Fe New Mexico, March 16, 2012, Talk Title: Our Genetic Stratigraphy.  
 Discussant, American Museum of Natural History Margaret Mead Ethnographic Film Festival, November 30, 2012.  
 Key Note Speaker: Faces of America Teacher Training Institute. Talk Title – Genetic Markers and Ancestry.  
 Delivered Feb 19 & Feb 20, 2010 at the New Mexico Museum of Natural History, Albuquerque.  
 Participant in Advanced Seminar – Rethinking Race and Science: Biology, Genes, and Culture. Held at School for Advanced Research, Santa Fe, NM, May 2 – May 6, 2010. I submitted a paper titled, ‘The Aimless Genome’.  
 Key Note Speaker: Genetics & Ethics in the 21st Century - 14th Conference, Stanley Park Hotel, Estes Park, Colorado, sponsored by University of Colorado Denver: Center for Bioethics and Humanities Human Medical Genetics Program, University of California Los Angeles: Center for Society and Genetics Case Western Reserve University: Center for Genetic Research Ethics and Law. Talk Title: Genetic Ancestry and Race and Their Implications for Health Disparities Thursday, July 22, 2010  
 Speaker Faculty Seminar, Department of Anthropology, University of Illinois, Urbana- Champaign, Talk Title: Archaic admixture in contemporary non-African human populations, September 17, 2010.  
 Speaker Faculty Seminar, Department of Human Genetics, University of California at Los Angeles, Talk Title: Archaic admixture in contemporary non-African human populations, October 18, 2010.  
 Speaker Faculty Seminar, Department of Human Genetics, University of Miami Medical School, Talk Title: The Aimless Genome, December 8, 2010.  
 Natural Selection for an Allele that Blocks Ethanol Metabolism. Delivered to the Department of Genetics, Federal University Rio Grande do Sol, Porto Alegre, Brazil, June 9, 2009.  
 200th Anniversary Celebration of Charles Darwin: Race in Genetics and Medicine. Delivered to Clinical Hospital of Porto Alegre, Brazil June 10, 2009.  
 Race in Genetics and Medicine. Keynote Address at Indiana University Symposium Rethinking Race in the Americas: Anthropology, Politics, and Policy, Bloomington, IN, April 18, 2008.  
 Race in Genetics and Medicine. Delivered to Science and Justice Working Group at University of California Santa Cruz, May 12, 2008.

Natural Selection for Natural Selection for an Allele that Blocks Ethanol Metabolism. Delivered to the Department of Genome Sciences at University of Washington, Seattle, October 22, 2008.

Race in Genetics and Medicine. Delivered to the XXI Congress of Medical Genetics, Belo Horizonte, Minas Gerais, Being of Humanity, held at the AAAS Annual Meeting February 15-19,2007 in San Francisco.

Generalized Hierarchical Modeling of Population Genetic Structure. Delivered to the Center for Global Health & Diseases, Case Western Reserve University, April 20, 2007.

Human population genetic structure and human race. Delivered at the symposium Race Reconciled, held at the Maxwell Museum of Anthropology, Albuquerque, NM, May 24-25, 2007

Interactions between biological and cultural evolution. First Biological Evolution Workshop, Porto Alegre, Rio Grande do Sul, Brazil, November 5 – 7, 2007