Curriculum Vitae

Jeffrey C. Long Department of Anthropology November 22, 2021

Educational History

University of Pittsburgh	Post-doc	1986	Biostatistics (Human Genetics)
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)

Doctoral Dissertation:

Estimation of Genetic Variation and Divergence: Application to Gainj and Kalam Speaking People of Papua New Guinea.

Doctoral Committee: Peter E. Smouse (Chair), George Estrabrook, Frank B. Livingstone, James V. Neel.

Employment History Part I (*Principal positions since the Bachelor's degree)*

2009-	Professor (with tenure) Dept. of Anthropology, Univ. of New Mexico.
2003-2009	Adjunct Professor, Dept. of Anthropology, Univ. of Michigan, Ann Arbor.
2001-2009	Assoc. Director, Genome Sciences Training Program, Univ. of Michigan.
2001-2009	Professor (with tenure), Dept. of Human Genetics, Univ. of Michigan.
1996-2001	Chief, Section on Population Genetics and Linkage, LNG, NIAAA, NIH..
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.
1987-1992	Assist. Prof., Dept. of Anthropology, Univ. of New Mexico, Albuquerque.
1986-1987	Assist. Prof., Dept. of Anthropology, Hunter College of CUNY.

Employment History Part II – (Concurrent or visiting appointments, consultantships)

2013-	Professor Dept. of Biology, Univ. of New Mexico, Albuquerque
2003-2009	Adjunct Professor, Dept. of Anthropology, Univ. of Michigan.
2001-2009	Assoc. Director, Genome Sciences Training Program, Univ. of Michigan.

Professional Recognition and Honors

2018 Elected member UNM Faculty Senate Operations Committee
2017 Elected member UNM Faculty Senate
2013 Plenary Speaker Human Biology Association annual meetings.

2008 Keynote Address at Indiana University Symposium Rethinking Race in the Americas: Anthropology, Politics, and Policy, Bloomington, IN.

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

Description of Research, Teaching and Service Interests

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 currently engaged with my graduate students and colleagues in studies on population admixture, genetic distance, and nucleotide sequence diversity within and among human populations. In the past year I have been collaborating on a study of the advance of schistosome worm infections into urban areas of Brazil. My role in this project is characterizing genetic variation in the worms that infect individual people within and among local communities.

I teach a broad spectrum of courses related to biology, genetics, evolution, and quantitative methods. Regardless of the topic, I strive for my courses to fulfill five basic principles. (1) A course should be **Transformative**. That is, a student who completes the course should acquire new skills by taking the course. (2) The knowledge and skills taught in a course should be **Transferable**. For example, a student who learns the mathematics of exponential population growth should be able to apply that knowledge to mathematically identical financial problems, such as the growth of capital with interest. (3) Students should learn to apply **Integrative** concepts. That is, the students should develop the ability to solve complex problems using diverse disciplines and principles. 4) A course should be **Interesting**. For example, students are compelled by the human example because they relate to the student's own well-being. (5) The course material should be **Current**. Where possible, a course should relate to ongoing findings and progress in science and society.

In the past several 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.

I engage in numerous service activities at the Departmental, University, Profession, and Community levels. At the Departmental level, I recently served on two promotion committees for promotion to full professor. At the University level, I was a faculty senator for four years (ending in 2019). As service to the profession, I regularly review articles for publication and proposals for grant funding from federal agencies. As service to the Community, I served on the KUNM public radio advisory board from 2015 – 2019.

Citation List of Published Work in Google Scholar:
https://scholar.google.com/citations?hl=en&user=gZp4JssAAAAJ

Scholarly Achievements

Articles Published in Refereed Journals

Niedbalski SD and Long JC (2021) Novel Alleles Gained During the Beringian Isolation Period. *Scientific Reports*. 12 (1): 1059. https://doi.org/10.1038/s41598-022-04776-0.

Long, J. C., Taylor, S. E., Barbosa, L. M., Silva, L. K., Reis, M. G., & Blanton, R. E. (2022). Cryptic population structure and transmission dynamics uncovered for Schistosoma mansoni populations by genetic analyses. *cientific Reports 12 (1): 4289. https://doi.org/10.1038/s41598-022-08212-1*

Kovach, J. D., Long, J. C., Barbosa, L. M., Moura, A. R. S. S., Silva, L. K., Reis, M. G., & Blanton, R. E. (2021). A Schistosoma mansoni tri- and tetramer microsatellite catalog for genetic population diversity and differentiation. International Journal for Parasitology, 51(12), 1007–1014. https://doi.org/10.1016/j.ijpara.2021.04.002

Koehl AJ, Long JC (2018) The contributions of admixture and genetic drift to diversity among post-contact populations in the Americas. *Am J Phys Anthropol. 2018 Feb;165(2):256-268. doi: 10.1002/ajpa.23347. Epub 2017 Oct 30*

KL Hunley, Cabana GS, Long JC (2016) The apportionment of human diversity revisited Am J Phys Anthrop 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, 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 Anthrop,* 139: 35-46.

Lisabeth LD, Peyser PA, Long JC, Majerisk MD, Smith MA, Morgenstern LB. (2008). Stroke Among Siblings in a Bi-ethnic Community. *Neuroepidemiology 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 Anthrop* 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 *AP*C 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) Allellic 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 concentraions and DSM-III-R psychiatric diagnoses. Biol Psychiatry 46:821-826, 1999.

Kittles RA, Bergen AW, Virkkunen M, Linnoila M, Urbanek M, Goldman D, and Long JC: Autosomal, mitochondrial, and Y chromosome DNA variation in Finland: Evidence for a male-specific bottleneck. Am J Phys Anthrop. 108:881-900, 1999.

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 cuasing 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.

Goldman D, Urbanek M, Guenther D, Robin R, Long JC: A functionally deficient DRD2 variant [Ser311Cys] is not linked to alcoholism and substance abuse. Alcohol 15: 1-6, 1998.

Nielsen DA, Virkkunen M, Lappalainen J, Eggert M, Brown GL, Long JC, Goldman D, Linnoila M: A tryptophan hydroxlyase 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 Anthrop 102: 301-314, 1997.

Bergen AW, Kokoszka J, Peterson RJ, Long JC, Linnoila M, Goldman D: Ala6Val and Asn40Asp variants of the human μ-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 Anthrop 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 Anthrop 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 ß-globin haplotypes and its implications for recent human evolution. Am J Phys Anthrop 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 Anthrop 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 Anthrop, 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 Anthrop, 61: 410-422,1983.

Walker PL, Long JC: Experimental analysis of butcher marks on archaeologically derived bone. American Antiquity, 42: 605– 616, 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. https://doi.org/10.1002/9781118584538.ieba0193

Long, Jeffrey C. (2018). Heritability in The International Encyclopedia of Biological Anthropology, Wenda Trevathan (ed). John Wiley and Sons, Inc. https://doi.org/10.1002/9781118584538.ieba0234.

Long, Jeffrey C. (2018). Livingstone, Frank in The International Encyclopedia of Biological Anthropology, Wenda Trevathan (ed). John Wiley and Sons, https://doi.org/10.1002/9781118584538.ieba0299.

Long, Jeffrey C. (2018). Spuhler, James N in The International Encyclopedia of Biological Anthropology, Wenda Trevathan (ed). John Wiley and Sons, Inc. https://doi.org/10.1002/9781118584538.ieba0467.

Articles Appearing in Chapters in Edited Volumes

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 (2006) Admixture. In Environment, Origins, Population. D. Ubelaker, ed. Pp. 799-807. Handbook of North American Indians, Vol. 3. Environment, Origins, andPopulation. 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 Indains and AlaskaNatives: 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 Commisssion 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.

Other Scholarly Works *(Writings, software, patents, etc.)*

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

Book Reviews:

Who We Are and How We Got Here: Ancient DNA and the New Science of the Human Past, by David Reich Human Biology, (2017), v. 89, no. 4, pp. 303–xx. Copyright © 2018 Wayne State University Press, Detroit, Michigan 48201

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. Anthrop. (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

In preparation: Relatedness of *Schistosoma mansoni* populations from four Brazilian communities using K-means classification and clustering with admixture analysis. Kathleen M. Kuesters, Jessica M. Blanton, Jeffrey D. Kovach, Lúcio M. Barbosa, Luciano K. Silva, Mitermayer G. Reis, Ronald E. Blanton and Jeffrey C. Long. To be submitted for publication shortly.

Invited or Refereed Abstracts and/or Presentations at Professional Meetings *(Past 2 years)*

"Cluster Analysis of Schistosomes Allele Frequencies" Delivered at the Symposium on Urban *Schistosomaisis* held at the Osvaldo Cruz Foundation for Medical Reserach, Bahia, Brazil, December 5, 2023

"Genetic Analysis of Schistosome population structure and transmission dynamics" Delivered at the Symposium on Urban *Schistosomaisis* held at the Osvaldo Cruz Foundation for Medical Reserach, Bahia, Brazil, December 8, 2023

"Evolution as an alternative to race for understanding human genetic diversity." Delivered to the Department of Biology, University of New Mexico, March 4, 2021 (Online).

"Nested Subsets of African Diversity as an Alternative to Race for Understanding Global Human Diversity". Delivered at University of North Texas Conference on Diversifying Genomic Research, November 20, 2020. (Online)

Invited Chair of Session - "Strategic Analysis of the Ancestral Genomic Theoretical Model Equation for Empirical Testing -- Proof of Concept". Held at University of North Texas Conference on Diversifying Genomic Research, November 21, 2020. (Online)

"A Method for Identifying Source Populations in Genetic Ancestry Studies", Presented to Cancer Control Research Group UNM Comprehensive Cancer Center. Delivered on February 3, 2020.

A Method for Identifying Source Populations in Genetic Ancestry Studies. Talk Delivered to Global Health Program Case Western Reserve, University March 28, 2019, Ronald Blanton, MD Sponsor.

A Method for Identifying Source Populations in Genetic Ancestry Studies Anthony J. Koehl and Jeffrey C. Long. Podium Presentation at 88TH annual meeting of the American Association of Physical Anthropologists, March 27 – 30, 2019

Genomic ontologies provide evidence against environmental adaptation during the Beringian standstill Sara D. Niedbalski and Jeffrey C. Long. Podium Presentation at 88TH annual meeting of the American Association of Physical Anthropologists, MARCH 27 – 30, 2019, Cleveland, OH

Thousand Genomes Project reveals unique Native American alleles that originated during Beringian standstill. Sara D. Niedbalski and Jeffrey C. Long Anthropology, University of New Mexico. Podium Presentation at 87TH annual meeting of the American Association of Physical Anthropologists, Austin,TX

Research

Research Funding

2009-2012
NSF 0850997
Project Title: Pattern and Process in Human DNA Sequence Variation (Total Award, $264,000)
Role: Principal Investigator

2012-2013
NSF 0850997
Project Title: Pattern and Process in Human DNA Sequence Variation
One-year no-cost extension.
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).

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

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)

2003-2006
NSF 0321610
Title: Allelic Variability and Tests for Signatures of Natural Selection at the Human ALDH2 Locus
Description: 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

2001-2009 NIH/NHGRI T32-HG-00040 (Boehnke, PI)
Title: Genome Sciences Training Program

Role: Associate director. Recruitment and retention of underrepresented minority students.

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 Distrubed Serotonin Function (Associate Investigator).
7. An American Indian Tribe with Low Alcoholism Prevalence: Transmission Analysis, Linkage Analysis and G ene/Environment Interactions. (Principal Investigator)

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.

1990 Biomedical Research Support Grant, office of the Vice President of Research, UNM. for "Demographic and molecular population genetic studies of Southwestern Indian Tribes".

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".

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. Pollitizer, University of North Carolina, Co-organizer.

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.

Teaching

NIH K-Award Mentor

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

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

Post-Doctoral advisement/direction (Major Advisor):

Ron Ferrucci PhD (post doctoral employee) 2012, Currently, Freelance web developer.
Cecil Lewis Ph.D. (post doctoral fellow) 2005-2007, Currently, Professor of Anthropology, University of Oklahoma
Suzanne Cole Ph.D. (post doctoral fellow) 2002-2005, Currently Lecturer III in Public Health, University of Michigan
Keith Hunley Ph.D. (post doctoral fellow) 2002-2004, Currently, Associate Professor of Anthropology, University of New Mexico
Ripan Malhi Ph.D. (post doctoral fellow) 2001-2002, Currently, Professor of Anthropology, University of Illinois
Carrie Pfaff, Ph.D. (post doctoral fellow) 2001-2003, Currently in private law practice.
Roger Vallejo, Ph.D. (Senior Research Fellow), 1997-2000, Currently, Computational Biologist, US Department of Agriculture
Connie Mulligan, Ph.D. (Senior National Research Council Fellow), 1998-2000, Currently, Professor of Anthropology, University of Florida
Joe Lorenz, Ph.D. (NIAAA post doctoral IRTA), 1997-2000, Currently Associate Professor, Central Washington University
Jaakko Lappalienen, M.D.,Ph.D. (Fogarty Fellow), 1996-1997, Biotechnology, Stockholm Sweden
Margrit Urbanek, Ph.D. (NIAAA post doctoral IRTA), 1993-1996, Currently Associate Professor of Human Genetics, Northwestern University School of Medicine

Doctoral Advisement

Ph.D. advisement (Major Advisor)

Adam Reynolds, Department of Anthropology, University of New Mexico, PhD 2023.
Sara Niedbalski, Department of Anthropology, University of New Mexico, PhD 2021.
Matt Schwartz, Department of Anthropology, University of New Mexico, PhD 2020.
Anthony Koehl, Department of Anthropology, University of New Mexico, PhD 2016.
Nicole Scott, Department of Human Genetics, University of Michigan, PhD 2011
Francine Romero, Department of Anthropology, University of New Mexico, PhD 1998
Raymond Peterson, Departments of Anthro and Genetics, Penn State University, PhD 1998
Ricky A Kittles, Department of Biology, George Washington University, PhD 1998

Ph.D. advisement (Committee Member Current and Past)

Sarah Alver, Mathematics and Statistics, University of New Mexico, In progress
Tyler Hipple, Biochemistry, University of New Mexico, In progress
Ethan Gyllenhaal, Biology, University of New Mexico, In progress
Alex Cameron, Biology, University of New Mexico, In progress
Chauncey Gadek, Biology, University of New Mexico, In progress
David Camak, Biology, University of New Mexico, In progress

Anastasia Kim (Statistics, PhD Awarded May 2020)
Lijing Bu, Biology, University of New Mexico, PhD Completed 2017
Natalie Wright, Biology, University of New Mexico, PhD Completed 2016
Libby Beckman, Biology, University of New Mexico, PhD Completed 2016
Jenna Van Liere, Bioinformatics, University of Michigan, Medical Student, U. Michigan
Huateng Huang, Ecology and Evolutionary Biology, University of Michigan,
Bonnie Young, Anthropology, University of New Mexico, Ph.D. 2012
Cris Van Hout, Human Genetics, University of Michigan, Ph.D. 2011
Meg Bakewell, Ecology and Evolutionary Biology, Univeristy of Michgan, Ph.D. 2010
Kari Britt Schroeder, Anthropology, UC Davis, Ph.D. 2009
Tim Connalon, Ecology and Evolutionary Biology, Unversity of Michigan, Ph.D. 2009
Matt Chatterfield, Ecology and Evolutionary Biology, Unversity of Michigan, Ph.D. 2008
Xiaoxia Wang, Ecology and Evolutionary Biology, Unversity of Michigan, Ph.D 2006
Kate Teeter, Ecology and Evolutionary Biology, Unversity of Michigan, Ph.D. 2005
Steve Albee-Scott, Ecology and Evolutionary Biology, Unversity of Michigan, Ph.D. 2005
Tasha Fingerlin, Epidemiology, University of Michigan, Ph.D. 2003
Srijan Sen, Neuroscience, University of Michigan, Ph.D. 2003
Bethany Neill, Epidemiology, University of Michigan, Ph.D. 2003
Elizabeth Hare, Genetics, George Washington University, Ph.D. 1998
Trenton Holliday, Biological Anthropology, University of New Mexico, Ph.D. 1995
Charles Hilton, Biological Anthropology, University of New Mexico, Ph.D. 1994
Derrick Suggs, Biology, University of New Mexico, Ph.D. 1992
Michael Alvard, Biosocial Anthropology, University of New Mexico, Ph.D. 1992
Steve Byers, Biological Anthropology, University of New Mexico, Ph.D. 1992
Samerchai Poolsuwan, Biological Anthropology, University of Michigan, Ph.D, 1991
Robert Tompkins, Biological Anthropology, University of New Mexico, Ph.D. 1991
Jatna Supriata, Biological Anthropology, University of New Mexico, Ph.D, 1988

Master's Advisement

Steven Severance 2021 - Biology, University of New Mexico, In progress. I am Steven's major advisor.

Bachelor's Honors Advisement

Delaney Keener, 2023, Honors program, BS Anthropology
Sarah Taylor, 2021, Honors program, BS Anthropology
LyAndra Lujan, 2018, BS (honors) Anthropology
Jazlyn Mooney, 2015, BS (honors) Anthropology, BS Biology

Classroom Teaching

(Courses offered at University of New Mexico)

Advanced Analytical Methods
Anthropological Genetics
Darwinism and Modern Genetics
Evolution and Human Emergence

Evolutionary Genetics
Genetic Basis of Adaptive Evolution
Human Biology (Offered Spring and Fall 2020)
Human Demography
Human Development
Human Genetics
Molecular Evolution
Population Genetics (Offered Fall 2020)
Personal Genomics (Offered Spring 2020)
Quantitative Methods
Research Computation in Evolutionary Anthropology
Statistical Concepts and Data Analysis

(Course offered at George Washington University):
Population Genetics
(Courses offered at 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)

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

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

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

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.

Service

2021-	Committee for promotion of Melissa Emery Thompson to rank of Professor
2021-	SHIP Award Committee
2020-	Chair, Undergraduate Committee, UNM
2020-	UNM Conflicts of Interest Committee
2019	Committee for promotion of Osbjorn Peterson to rank of Professor
2019	Committee for promotion of Frances Hayashida to rank of Professor
2018	NIH/CSR Special Emphasis Panel. Genes, Genomes, Genetics - J (Feb & Jun)

2019	Review of journal articles for: Am J Phys, Yrbk Phys Anthrop, Science
2018	Faculty Senate (Elected)
2018-2019	Faculty Senate Operations Committee (Elected)
2017	NIH/CSR Special Emphasis Panel. Genes, Genomes, Genetics - J (Feb & Jul)
2016	NIH/CSR Special Emphasis Panel. Genes, Genomes, Genetics - J (Feb & Jul)
2015-2016	Associate Chair, Dept. of Anthropology, Univ. of New Mexico, Albuquerque
2015	NIH/CSR Special Emphasis Panel. Genes, Genomes, Genetics - J (Feb & Oct)
2014-2019	KUNM Advisory Board
2014	Chair, NIH/CSR Genetic, Variation and Evol 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
2012-2017	Editorial Board *Yearbook of Physical Anthropology*
2012 -	Editorial Board *Journal of Anthropological Research*
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 Anthrop`ology Advisory Panel.