

CURRICULUM VITAE

YANN C. KLIMENTIDIS, Ph.D.

Assistant Professor
Division of Epidemiology and Biostatistics
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CHRONOLOGY OF EDUCATION AND TRAINING

1998	B.A. Biology, Texas A&M University
2002	M.S. Anthropology, University of New Mexico
2008	Ph.D. Anthropology, University of New Mexico
	Dissertation: Using genetic admixture to examine social and phenotypic aspects of ethnicity among New Mexican Hispanics and Native Americans
	Advisor: Geoffrey Miller
2009 - 2012	Postdoctoral Training, Statistical Genetics, Dept. of Biostatistics, University of Alabama at Birmingham
2012 - 2014	Arizona Clinical & Translational Research Graduate Certificate Program

Major fields: genetic epidemiology, cardiometabolic disease, health disparities

CHRONOLOGY OF EMPLOYMENT

Academic

2003 – 2003	Instructor , French 102, University of New Mexico, Albuquerque, NM
2005 – 2008	Instructor , Introduction to Human Evolutionary Ecology (and laboratory section for this course), Introduction to Biological Anthropology; University of New Mexico, Albuquerque, NM
2009 – 2011	Postdoctoral Fellowship , Section on Statistical Genetics; University of Alabama at Birmingham, Birmingham, AL
2012 – 2012	Instructor , Office of Energetics, School of Public Health; University of Alabama at Birmingham, Birmingham, AL
2012 – present	Assistant Professor , Division of Epidemiology and Biostatistics, University of Arizona, Tucson, AZ
2012 – present	Member , BIO5 Institute, University of Arizona, Tucson, AZ
2013 – present	Member , Graduate Interdisciplinary Program in Genetics, University of Arizona, Tucson, AZ

Other

1998 – 2002 Research Technician, Pediatrics and Molecular and Cellular Biology;
 Baylor College of Medicine, Houston, TX

2000 – 2002 Research Technician, Department of Biochemistry and Molecular
 Biology, University of New Mexico

2003 – 2008 Editorial Assistant, *Human Nature*, University of New Mexico

HONORS AND AWARDS

Texas A&M University Dean's Award, 1997.

Faculty of 1000 library of the top 2% of published articles in biology and medicine:

Klimentidis YC, Beasley TM, Lin HY, Murati G, Glass GE, Guyton M, Newton W, Jorgensen M, Heymsfield SB, Kemnitz J, Fairbanks L, & Allison DB (2010) Canaries in the Coal Mine: A Cross-Species Analysis of the Plurality of Obesity Epidemics. *Proceedings of the Royal Society, B*. 278(1712):1626-32.

Second Place - UAB School of Public Health Research Day, Poster presentation, April 2010.

First Place - UAB School of Public Health Research Day, Poster presentation (Faculty category), April 2012.

Second Place – Alabama Public Health Association, Poster presentation, May, 2012.

PROFESSIONAL SOCIETIES

American Society of Human Genetics
 American Diabetes Association

SERVICE/OUTREACH (UA)**External Service**

Journal Referee for: PLoS Genetics; Annals of Epidemiology; Diabetologia; Genome Medicine; Diabetology & Metabolic Syndrome; Human Genetics; Ethnicity and Disease; American Journal of Human Biology; American Anthropologist; Human Nature; PNAS; Obesity; JAMA; American Journal of Clinical Nutrition; Current Diabetes Reviews; Annals of Human Genetics; Human Heredity; Molecular Carcinogenesis; PLoS One

University of Arizona

Undergraduate Epidemiology Track Workgroup; Spring, 2014

Epidemiology MPH Admissions; Spring, 2015

UAHS Hiring Committee Member for the Director of the Center for Disparities in Diabetes, Obesity & Metabolism; Fall 2015 - current

UAHS Center for Applied Genetic and Genomic Medicine Planning Committee; 2015-current

Media Interviews

Regarding publication on plurality of obesity epidemics:

The Atlantic Magazine, Science & Vie, Weekly Reader, Austrian Public Radio, and others (2010)

Regarding publication on physical activity and genetic risk for type 2 diabetes:

Endocrine Today, 9/29/14

MedicalResearch.com, 9/26/14

Regarding publication on resistance exercise intervention and genetic risk for obesity:

Daily Mail, 4/30/15

Live Science, 4/29/15

Regarding publication on triglyceride genes and type-2 diabetes risk:

Endocrine Today, 6/1/15

MedicalResearch.com, 5/26/15

104.1 KQTH live radio interview, 6/10/15

Tucson Lifestyle Magazine, 10/1/15

Regarding publication on FTO and time spent sitting:

Reuters Health (New York), 10/20/2015

PROFESSIONAL IMPROVEMENT

Short Course on Model Selection and Multimodel Inference; UAB; January 2009.

International Workshop on Statistical Genetics; Boulder, CO; March 2010.

Statistical Learning Methods for Genome-Based Prediction of Complex Traits; June 2011.

NHGRI/UAB/Hudson Alpha Short Course on Next Generation Sequencing: Technology & Statistical Methods, December 2011.

NIDDK K01 Awardees Workshop at NIH Campus, Bethesda, MD, 2013.

PEER-REVIEWED JOURNAL PUBLICATIONS *indicates work done as part of PhD

1. Hadsell DL, Alexeenko T, **Klimentidis YC**, Torres D, Lee AV (2001) Inability of overexpressed des(1-3) human insulin-like growth factor I (IGF-I) to inhibit forced mammary gland involution is associated with decreased expression of IGF signaling molecules. *Endocrinology* 142: 1479-88.
2. Hadsell DL, Bonnette S, George J, Torres D, **Klimentidis YC**, Gao S, Haney PM, Summy-Long J, Soloff MS, Parlow AF, Sirito M, Sawadogo M (2003) Diminished milk synthesis in upstream stimulatory factor 2 null mice is associated with decreased circulating oxytocin and decreased

- mammary gland expression of eukaryotic initiation factors 4E and 4G. *Molecular Endocrinology* 17(11):2251-67.
3. ***Klimentidis YC**, Miller G, Shriver MD (2009) Genetic admixture, self-reported ethnicity, self-estimated admixture, and skin pigmentation among Hispanics and Native Americans. *American Journal of Physical Anthropology*, 138(4): 375-83.
 4. ***Klimentidis YC**, Shriver MD (2009) Estimating genetic admixture proportions from faces. *PLoS One*, 4(2): e4460.
 5. ***Klimentidis YC**, Miller G, Shriver MD (2009) The relationship between European genetic admixture and body composition among Hispanics and Native Americans. *American Journal of Human Biology*, 21(3):377-382.
 6. Valentine LE, Loffredo JT, Bean AT, León EJ, MacNair CE, Beal DR, Piaskowski SM, **Klimentidis YC**, Lank SM, Wiseman RW, Weinfurter JT, May GE, Rakasz EG, Wilson NA, Friedrich TC, O'Connor DH, Allison DB, and Watkins DI (2009) Infection with "escaped" virus variants impairs control of SIVmac239 replication in Mamu-B*08+ macaques. *Journal of Virology*, 83(22) 11514-27.
 7. Martins MA, Wilson NA, Reed JS, Ahn CD, **Klimentidis YC**, Allison DB, and Watkins DI (2010) T-cell correlates of vaccine efficacy after a heterologous SIV challenge. *Journal of Virology*, 84(9):4352-65.
 8. Friedrich TC, Piaskowski SM, León EJ, Furlott JR, Maness NJ, Weisgrau KL, Mac Nair CE, Weiler AM, Loffredo JT, Reynolds MR, Williams KY, **Klimentidis YC**, Klimentidis YC, Nancy A. Wilson, David B. Allison, and Eva G. Rakasz. (2010) High viremia is associated with high levels of *in vivo* MHC-I downregulation in rhesus macaques infected with SIVmac239. *Journal of Virology*, 84(10):5443-7.
 9. De Luca M, **Klimentidis YC**, Krista Casazza, Michelle Moses Chambers, Ruth Cho, Susan T. Harbison, Patricia Jumbo-Lucioni, Shaoyan Zhang, Jeff Leips, and Jose R. Fernandez. (2010) A conserved role for syndecan family members in the regulation of whole-body energy metabolism. *PLoS One* 5(6): e11286
 10. **Klimentidis YC**, Jasmin Divers, Krista Casazza, David B. Allison, Jose R. Fernandez (2011) Ancestry-informative markers on chromosomes 2, 8 and 15 are associated with insulin-related traits in a racially diverse sample of children. *Human Genomics*. Jan 5(2):79-89.
 11. **Klimentidis YC**, Beasley TM, Lin HY, Murati G, Glass GE, Guyton M, Newton W, Jorgensen M, Heymsfield SB, Kemnitz J, Fairbanks L, & Allison DB (2011) Canaries in the Coal Mine: A Cross-Species Analysis of the Plurality of Obesity Epidemics. *Proceedings of the Royal Society, B*. 278(1712):1626-32
 12. **Klimentidis YC**, Abrams M, Wang J, Fernandez JR, Allison DB (2011) Natural selection at genomic regions associated with obesity and type-2 diabetes: East Asians and sub-Saharan Africans exhibit high levels of differentiation at type-2 diabetes regions. *Human Genetics*. 129: 407-418.

13. Makowsky R, Pajewski N, **Klimentidis YC**, Vasquez AI, Duarte C, Allison DB, de los Campos G (2011) Beyond missing heritability: Prediction of complex traits. *PLoS Genetics* 7(4): e1002051.
14. **Klimentidis YC**, Aissani B, Shriver MD, Allison DB, Shrestha S (2011). Natural Selection among Eurasians at genomic regions associated with HIV-1 control. *BMC Evolutionary Biology*. 11: 173.
15. Duarte CW, **Klimentidis YC**, Harris J, Cardel M, Fernandez JR (2011) A Hybrid Bayesian Network/Structural Equation (BN/SEM) Modeling Approach for Detecting Physiological Networks for Obesity-related Genetic Variants. *Proceedings. IEEE International Conference on Bioinformatics and Biomedicine*. 2011:696-702.
16. **Klimentidis YC**, Chen GB, Lopez-Alarcon M, Harris J, Duarte C, Fernandez JR (2011). Associations of Obesity Genes with Obesity-related Outcomes in Multiethnic Children. *Archives of Medical Research*. 42(6): 509-14.
17. Gomez-Rubio P, **Klimentidis YC**, Cantu-Soto E, Meza-Montenegro MM, Billheimer D, Lu Z, Chen Z, Klimecki W (2012). Indigenous American ancestry is associated with arsenic methylation efficiency in an admixed population of northwest Mexico. *Journal of Toxicology and Environmental Health A*. 75(1): 36-49
18. Fernandez JR, **Klimentidis YC**, Dulin-Keita A, Casazza K (2012). Genetic influences in childhood obesity: recent progress and recommendations for experimental designs. *International Journal of Obesity*. 36(4):479-84.
19. Quillen EE, Bauchet M, Bigham AW, Delgado-Burbano ME, Faust F, **Klimentidis YC**, Mao X, Stoneking M, and Shriver MD (2012). OPRM1 and EGFR contribute to skin pigmentation differences between Indigenous Americans and Europeans. *Human Genetics*. 131(7):1073-80.
20. **Klimentidis YC**, Dulin-Keita A, Casazza K, Willig A, Allison DB, Fernandez JR (2012) Genetic admixture, social-behavioral factors, and body composition are associated with blood pressure differently by racial-ethnic group among children. *Journal of Human Hypertension*. 26(2):98-10
21. de los Campos G, **Klimentidis YC**, Vazquez AI, Allison DB (2012). Prediction of expected years of life using whole-genome markers. *PLoS One*. 7(7):e40964.
22. Vazquez AI, de los Campos G, **Klimentidis YC**, Rosa GMJ, Gianola D, Yi N, Allison DB (2012). A Comprehensive Genetic Approach for Improving Prediction of Skin Cancer Risk in Humans. *Genetics*. 192(4):1493-502.
23. Malek AJ, **Klimentidis YC**, Kell KP, Fernandez JR (2013). Associations of the lactase persistence allele and lactose intake with body composition among multiethnic children. *Genes and Nutrition*. 8: 487-94.
24. Lemas DJ, **Klimentidis YC**, Weiner HH, O'Brien DM, Hopkins S, Stanhope KL, Havel PJ, Allison DB, Fernandez JR, Tiwari HK, Boyer BB (2013). Obesity polymorphisms identified in genome-wide association studies interact with n-3 polyunsaturated fatty acid intake and modify the genetic association with adiposity phenotypes in Yup'ik people. *Genes and Nutrition*. 8: 495-505.

25. Aslibekyan S, Vaughan LK, Wiener HW, Lemas DJ, **Klimentidis YC**, Havel PJ, Stanhope KL, O'Brien DM, Hopkins SE, Boyer BB, Tiwari HK (2013). Evidence for novel genetic loci associated with metabolic traits in Yup'ik people. *American Journal of Human Biology*. 25: 673-80.
26. **Klimentidis YC**, Vazquez AI, de los Campos G, Allison DB, Dransfield M, Thannickal VJ (2013). Heritability of pulmonary function estimated from pedigree and whole-genome markers. *Frontiers in Genetics*. 4:174.
27. de los Campos G, Vazquez AI, Fernando RL, **Klimentidis YC**, Sorensen D (2013). Prediction of Complex Human Traits Using the Genomic Best Linear Unbiased Predictor. *PLoS Genetics*. 9 (7), e1003608.
28. **Klimentidis YC**, Lemas DJ, Wiener HH, O'Brien DM, Havel PJ, Stanhope KL, Hopkins SE, Tiwari HK, Boyer BB (2014). *CDKAL1* and *HHEX* are associated with type-2 diabetes-related traits among Yup'ik people. *Journal of Diabetes*. 6 (3): 251-259.
29. Chen GB, Liu, N, **Klimentidis YC**, Zhu Z, Zhi D, Lou, XY (2014). A unified GMDR method for detecting gene-gene interactions in family and unrelated samples with application to nicotine dependence. *Human Genetics*. 133(2):139-50.
30. **Klimentidis YC**, Wineinger NE, Vazquez AI, de los Campos G (2014). Multiple metabolic genetic risk scores and type 2 diabetes risk in three racial/ethnic groups. *Journal of Clinical Endocrinology and Metabolism*. 99 (9):E1814-E1818.
31. **Klimentidis YC**, Zhou J, Wineinger NE (2014). Identification of allelic heterogeneity at type-2 diabetes loci and impact on prediction. *PLoS One*. 9(11):e113072.
32. **Klimentidis YC**, Chen Z, Arora A, Hsu CH (2014). Association of physical activity with lower type 2 diabetes incidence is weaker among individuals at high genetic risk. *Diabetologia*. 57(12):2530-2534.
33. Lebrón-Aldea D, Dhurandhar EJ, Pérez-Rodríguez P, **Klimentidis YC**, Tiwari HK, Vazquez AI (2015) Integrated genomic and BMI analysis for type-2 diabetes risk assessment. *Frontiers in Genetics*. 6:75.
34. **Klimentidis YC**, Bea JW, Lohman T, Hsieh PS, Going S, Chen Z. (2015) High genetic-risk individuals benefit less from resistance exercise intervention. *International Journal of Obesity*. 39(9):1371-5.
35. Hibler EA, **Klimentidis YC**, Jurutka PW, Kohler LN, Lance P, Roe DJ, Thompson PA, Jacobs ET (2015) *CYP24A1* and *CYP27B1* Polymorphisms, Concentrations of Vitamin D Metabolites, and Odds of Colorectal Adenoma Recurrence. *Nutrition and Cancer*. 67(7):1131-41.
36. **Klimentidis YC**, Chougule A, Arora A, Frazier-Wood AC, Hsu CC. (2015) Triglyceride-increasing alleles associated with protection against type-2 diabetes. *PLoS Genetics*. 11(5):e1005204

37. Vazquez AI, **Klimentidis YC**, Dhurandhar EJ, Veturi YC, Pérez-Rodríguez P. (2015) Assessment of Whole-Genome Regression for Type II Diabetes. *PLoS One*. 10(4):e0123818.
38. **Klimentidis YC**, Arora A, Chougule A, Zhou J, Raichlen D. (2015) FTO association and interaction with time spent sitting. *International Journal of Obesity*. In Press.
39. Duarte CW, **Klimentidis YC**, Harris JJ, Cardel M, Fernández JR (2015) Discovery of phenotypic networks from genotypic association studies with application to obesity. *International Journal of Data Mining and Bioinformatics*. 12(2): 129-143.
40. **Klimentidis YC**, Bea JW, Thompson P, Klimecki WT, Hu C, Wu G, Nicholas S, Ryckman KK, CHARGE Consortium Musculoskeletal Working Group, Chen Z (2016) Genetic Variant in *ACVR2B* Is Associated with Lean Mass. *Medicine & Science in Sports & Exercise*. In Press.
41. Reynolds RJ, Vazquez AI, Srinivasasainagendra V, **Klimentidis YC**, Bridges SL Jr, Allison DB, Singh JA (2015) Serum urate gene associations with incident gout, measured in the Framingham Heart Study, are modified by renal disease and not by body mass index. *Rheumatology International*. In Press.
42. **Klimentidis YC**, Arora A (2016) Interaction of Insulin Resistance and Related Genetic Variants with Triglyceride-Associated Genetic Variants. *Circulation: Cardiovascular Genetics*. In Press.

Manuscripts Submitted or Under Revision

Lemas DJ, **Klimentidis YC**, Wiener HW, O'Brien DM, Hopkins SE, Stanhope KL, Havel PJ, Allison DB, Fernandez JR, Tiwari HK, and Boyer BB. Polymorphisms in SCD and SREBF1 Interact with n-3 Polyunsaturated Fatty Acid Intake to Modify Genetic Associations with Obesity-Related Anthropometric and Metabolic Phenotypes in Yup'ik People. *Submitted to Journal of Lipid Research*.

Klimentidis YC, Arora A, Zhou J, Kittles R, Allison DB. Among men only, West-African genetic ancestry is associated with lower central adiposity. *Submitted to Frontiers in Genetics*.

Chen Z, **Klimentidis YC**, Bea JW, Ernst KC, Hu C, Jackson R, Thomson CA. Body Mass Index, Waist Circumference and Mortality in a Large Multiethnic Postmenopausal Cohort -Results from the Women's Health Initiative. *Submitted to American Journal of Epidemiology*.

SCHOLARLY PRESENTATIONS

Invited Presentations

Type-2 Diabetes: When Genes Meet Lifestyle – UA Genetics and Genomics Grand Rounds – May, 2015

Type-2 Diabetes: When Genes Meet Lifestyle. UA Nutrition Seminar – September, 2014

Challenges in Analyzing Genetics of Complex Traits. UA Biostatistics Seminar – February, 2014

Genetic Prediction of Type-2 Diabetes: Present and Future. UA Graduate Interdisciplinary Program in Genetics – December, 2013

Towards an Improved Prediction of Genetic Risk for Type-2 Diabetes. NIDDK - Phoenix Branch, Phoenix, AZ. May 10, 2013.

The genetic basis of blood pressure and population differences in blood pressure. Talk at the UAB Hypertension and Vascular Biology Seminar. March, 2011.

Peer-reviewed abstracts and presentations

Association of physical activity with lower type-2 diabetes incidence is weaker in those with high genetic risk. YC Klimentidis, Z. Chen, A. Arora, C. Hsu Poster presented at the American Society of Human Genetics annual meeting. October, 2014.

Multiple Metabolic-Related Genetic Risk Scores and Type-2 Diabetes Risk in Three Ethnic/Racial Groups. YC. Klimentidis, Nathan E. Wineinger, Ana I. Vazquez, Gustavo de los Campos. Poster presented at the American Diabetes Association. June, 2014.

High-dimensional genetic prediction of type-2 diabetes susceptibility. Poster presented at American Society of Human Genetics annual meeting. October, 2013.

Genetic variants in CAPN3 and ACVR2B are associated with lean body mass in postmenopausal women. Poster presented at the American Society of Bone Mineral Research annual meeting, October, 2013.

Prediction of human height with GWAS-identified SNPs – insights into genetic architecture. Poster presented at American Society of Human Genetics annual meeting. November, 2012.

Natural Selection among Eurasians at genomic loci associated with HIV-1 control - Poster Presentation at the American Association of Physical Anthropology 2011 Meeting.

Natural Selection among Eurasians at genomic loci associated with HIV-1 control. Talk at the UAB Postdoctoral Research Day. February, 2011.

Natural Selection among Eurasians at genomic loci associated with HIV-1 control - Poster presented at the 2010 American Society of Human Genetics meeting. November, 2010.

Socio-Cultural, Behavioral, Physiological, and Genetic Factors Contribute to Racial/Ethnic Disparities in Blood Pressure Among Children - **Oral presentation** at the Obesity Society Meeting 2010.

Signatures of selection at obesity-implicated genes in a worldwide sample – **Oral Presentation** at the American Association of Physical Anthropology 2010 Meeting.

Signatures of natural selection at genetic regions associated with obesity and type-2 diabetes in a world-wide sample. Poster presented at the 2010 UAB School of Public Health Research Day

From Genome-Wide to World-Wide: Population Differentiation and Natural Selection at Obesity Genes – Poster presented at The Obesity Society Meeting; October, 2009.

The genetic and social correlates of elevated blood pressure among multi-ethnic/racial children. – Podium Presentation – The Obesity Society Meeting, October, 2009.

From Genome-Wide to World-Wide: Obesity Genes in Different Populations – Poster presented at the UAB Minority Health Research Center Research Day; April, 2009.

Signatures of natural selection at obesity-related loci: methods and preliminary findings – Poster presented at UAB School of Public Health Research Day; April 2009.

The cultural context of genetic ancestry in Hispanics and Native Americans in New Mexico – March 22, 2007 – Pennsylvania State University, Department of Anthropology.

Genetic admixture, phenotype, and perception of admixture in Hispanics and Native Americans in New Mexico. – American Association of Physical Anthropology Meeting – 2006.

The Use of AIMs (Ancestry Informative Markers) in Examining Human Cognitive and Behavioral Ecology, and Phenotypic Diversity. Oct 10, 2003 at the University of New Mexico HEBS (Human Evolutionary and Behavioral Sciences) research network colloquium.

GRANTS AND CONTRACTS (UA)

Current

NIH K01 DK095032-01 PI: Klimentidis, 90% effort 09/01/12 - 06/31/16
Whole-Genome Prediction of Type-2 Diabetes Susceptibility in Various Populations.
 This is a career development award. The goal of the research component is to develop and test genomic prediction models for type-2 diabetes risk in different populations.
 Total funding: \$440,000

Pending

NIH R01 NIDDK PI: Klimentidis, 50% effort 07/01/16 – 6/31/19
Why are black/white disparities in obesity vast for women and absent for men?
 Status: Submitted October, 2015 Total funding: \$430,760

NIH R01 NHLBI PI: Klimentidis, 50% effort 09/01/16 – 8/31/19
Genetics at the interface of lipid and glycemic traits
 Status: Submitted February, 2016 Total funding: \$415,420

NIH R01 Co-I: Klimentidis, 5% effort 09/01/16 – 8/31/21
Risk factors for poor physical function, low muscle strength and frailty in older Tibetans living at high altitudes

Status: Submitted February, 2016

Total funding: ~\$2,500,000

TEACHING (UA)**Courses**

EPID/GENE 677 Principles of Genetic Association Studies (co-taught with Dr. Stefano Guerra)
Spring 2014 (6 Students), Spring 2015 (9 students), Spring 2016

EPID 696A Director of Epidemiology Seminar (1 credit)
Spring 2015 (28 students), Fall 2015, Spring 2016

Advising/mentoring

Spring 2013 Independent Study CPH 399 with undergraduate student – Brielle Blackledge

Fall 2013 – Summer 2014 MPH Internship Preceptor – Amit Arora

Spring 2013 – current Dissertation committee member for PhD student – Ariella Gladstein

Spring 2014 – current Dissertation committee member for PhD student – Debbie Chen

Fall 2014 – current MPH Committee Member – Nirmal Singh

Spring 2015 – Fall 2015 Honor's Thesis Project with undergraduate student – Lindsey Schader

Fall 2015 Honor's Independent Study Project with undergraduate student – Christina Harris

This is a true and accurate statement of my activities and accomplishments. I understand that misrepresentation in securing promotion and tenure may lead to dismissal or suspension under ABOR Policy 6-201 J.1.b

