

Curriculum Vitae

Kicheol Kim

Ph.D
Postdoctoral Scholar
Department of Neurology
University of California, San Francisco
San Francisco, CA 94158, USA

Kicheol.Kim@ucsf.edu
kicheol.kim@gmail.com

EDUCATION

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| 2010-2014 | Ph.D. in Biological Sciences, concentration in Genetics
Dankook University, Cheonan, Korea |
| 2008-2009 | M.S. in Biological Sciences, concentration in Genetics
Dankook University, Cheonan, Korea |
| 2001-2007 | B.S. majoring in Biological Sciences, minoring in Computer Science
Dankook University, Cheonan, Korea |

AWARDS and SCHOLARSHIPS

- Excellence in Beomjeong scientific awards (2012)
- Teaching assistant scholarship of Dankook University (2010, 2011)
- Graduate research assistant scholarship of Dankook University (2009, 2010, 2011, 2012)
- General assistant scholarship of Dankook University (2008)

RESEARCH EXPERIENCE and SKILLS

Experiments

- Construction of multiplex PCR system for STR and miniSTR genotyping
- Construction of multiplex SNaPshot genotyping for mitochondrial DNA haplogroup analysis
- Use and maintenance of ABI 310 Genetic Analyzer
- Ancient DNA extraction from about 400 ~ 600 years old human remains using silica suspension
- Cloning of PCR product and Sanger sequencing with BigDye terminator kit

Data analysis

- RNAseq (gene expression and differentiation) experiment and data analysis
- Sequence analysis using Sequencher, Bioedit, ClustalW, and etc.
- Analysis of population genetic data using Arlequin, PowerMarker, PHYLIP, NETWORK, STRUCTURE, BATWING, and so on.
- Statistical analysis of association study using SPSS and R
- Analysis of complete mitochondrial genomes from Next Generation Sequencing in the 1,000 Genomes Project

PUBLICATIONS

1. Jin HJ, Hwang IW, **Kim KC**, Cho HI, Park TH, Shin YA, Lee HS, Hwang JH, Kim AR, Lee KH, Shin YE, Lee JY, Kim JA, Choi EJ, Kim BK, Sim HS, Kim MS, Kim W. (2016) Is there a relationship between PPARD T294C/PPARGC1A Gly482Ser variations and physical endurance performance in the Korean population? *Genes & Genomics* 38:389-395. – **SCI(E)**
2. **Kim KC**, Choi EJ, Kim SY, Kim JA, Lee KW, Lee JY, Koo KC, Park KW, Kang PW, Han MS, Kim W. (2015) A comparison of web-based mtDNA haplogrouping tools. *Korean Journal of Forensic Science* 16:39-44.
3. **Kim KC**, Lee SG, Kim JA, Choi EJ, Kim W. (2015) The prevalence of an interrupted poly-C tract variant harboring mitochondrial DNA haplogroup B and its association with reduced susceptibility to type 2 diabetes in Korea. *Genes & Genomics* 37:939-944. – **SCI(E)**
4. Hong SB, **Kim KC**, Kim W. (2015) Population and forensic genetic analyses of mitochondrial DNA control region variation from six major provinces in the Korean population. *Forensic Science International: Genetics* 17:99-103. – **SCI(E)**
5. Jin HJ, **Kim KC**, Kim W. (2015) Phylogenetic analysis of two haploid markers of 500-years-old human remains found in a central region of Korea. *Genes & Genomics* 37:33-43. – **SCI(E)**
6. Hong SB, **Kim KC**, Kim W. (2014) Mitochondrial DNA haplogroups and homogeneity in the Korean population. *Genes & Genomics* 36:583-596. – **SCI(E)**
7. Delaneau O, Marchini J; 1000 Genomes Project Consortium; **1000 Genomes Project Consortium**. (2014) Integrating sequence and array data to create an improved 1000 Genomes Project haplotype reference panel. *Nature Communications* 5:3934. – **SCI(E)**
8. Colonna V, Ayub Q, Chen Y, Pagani L, Luisi P, Pybus M, Garrison E, Xue Y, Tyler-Smith C; **1000 Genomes Project Consortium**, Abecasis GR, Auton A, Brooks LD, DePristo MA, Durbin RM, Handsaker RE, Kang HM, Marth GT, McVean GA. (2014) Human genomic regions with exceptionally high levels of population differentiation identified from 911 whole-genome sequences. *Genome Biology* 15:R88. – **SCI(E)**
9. Jin HJ, **Kim KC**, Yoon CE, Kim W. (2013) Forensic and population genetic analyses of eighteen non-CODIS miniSTR loci in the Korean population. *Journal of Forensic and Legal Medicine* 20:1093-1097. – **SCI(E)**
10. Khurana E, Fu Y, Colonna V, Mu XJ, Kang HM, Lappalainen T, Sboner A, Lochovsky L, Chen J, Harmanci A, **1000 Genomes Project Consortium**, et al. (2013) Integrative annotation of variants from 1092 humans: application to cancer genomics. *Science* 342:1235587. – **SCI(E)**
11. Hong SB, Kim SH, **Kim KC**, Park MH, Lee JY, Song JM, Han MS, Kim W. (2013) Korean population genetic data and concordance for the PowerPlex® ESX 17, AmpFISTR Identifiler®, and PowerPlex® 16 systems. *Forensic Science International: Genetics* 7:e47-e51. – **SCI(E)**
12. Lee WH, Moon SO, Kim JJ, **Kim KC**, Kim SH, Song SB, Han MS. (2012) Forensic genetic analysis of the thirteen CODIS core STR loci in a large Korean population. *Korean Journal of Forensic Science* 13:11-17.
13. **The 1000 Genomes Project Consortium**. (2012) An integrated map of genetic variation from 1,092 human genomes. *Nature* 491:56-65. – **SCI(E)**

14. **Kim KC**, Jin HJ, Kim W. (2012) Mitochondrial haplogroup B is negatively associated with elite Korean endurance athlete status. *Genes & Genomics* 34:569-573. – **SCI(E)**
15. **Kim KC**, Cho HI, Kim W. (2012) MtDNA Haplogroups and Elite Korean Athlete Status. *International Journal of Sports Medicine* 33:76-80. – **SCI(E)**
16. Kim SH, Hong SB, **Kim KC**, Jin HJ, Han MS, Kim W, Kim W. (2012) Forensic genetic data of 6 Y-STR loci: An expanded Korean population database. *Forensic Science International: Genetics* 6:e35-e36. – **SCI(E)**
17. Kim SH, **Kim KC**, Shin DJ, Jin HJ, Kwak KD, Han MS, Song JM, Kim W, Kim W. (2011) High frequencies of Y chromosome haplogroup O2b-SRY465 lineages in Korea: A genetic perspective on the peopling of Korea. *Investigative Genetics* 2:10. – **Scopus, PubMed index**
18. Kim W, Cho HI, **Kim KC**, So YH, Oh JG. (2011) Relationships between digit ratio (2D:4D), ACE gene polymorphism, and physical performance in the Korean population. *Genes & Genomics* 33:409-414. – **SCI(E)**
19. Jin HJ, **Kim KC**, Kim W. (2010) Genetic diversity of two haploid markers in the Udegey population from southeastern Siberia. *American Journal of Physical Anthropology* 142:303-313. – **SCI(E)**
20. Kim W, Cho HI, **Kim KC**, Lee HS, So YH. (2009) Assessment of association of Estrogen Receptor-alpha gene polymorphism with physical activity and bone metabolism. *Genes & Genomics* 31:333-340. – **SCI(E)**

Accepted

21. Park HC, **Kim KC**, Nam YH, Park HJ, Lee JM, Lee HH, Kwon HS, Jin HJ, Kim W, Kim W, Lim SK. Internal validation of the GlobalFiler kit and PowerPlex Fusion System and a population genetics study in a Korean population. *Legal Medicine* (Co-first author) – **SCI(E)**

In Revision

22. **Kim KC**, Ganbold U, Lee KH, Tsagaan E, Sharavdorj P, Kim JA, Choi EJ, Kim SY, Lee JY, Suren G, Kim W. Population and forensic genetic analyses of 23 Y-chromosomal short tandem repeats (Y-STRs) in the Mongolian population. *Legal Medicine* – **SCI(E)**

CONFERENCE PRESENTATIONS

Poster presentations

1. **Ki Cheol Kim**, Eun Ji Choi, So Yeon Kim, Ji Ae Kim, Kwang Hee Lee, Jeong Yong Lee, Kyo Chan Koo, Ki Won Park, Pil Won Kang, Myun Soo Han, Wook Kim. A Comparison of Web-based mtDNA Haplogrouping Tool. *The 30th Conference of Korean Society of Forensic Sciences*. Seoul, Korea. December 2015.
2. In-Wook Hwang^P, **Ki-Cheol Kim**, Han-Jun Jin, Hyun-Ik Cho, Yun-A Shin, Ho-Seong Lee, Ji-Hyun Hwang, Ah-Ram Kim, Kwang-Hee Lee, Ye-Eun Shin, Ji-Yeon Lee, Ji-Ae Kim, Eun-Ji Choi, Min-Seok Kim, Wook Kim. Association between PPAR gene variations and endurance athlete status in

Koreans. *The 70th Annual Meeting of the Korean Association of Biological Sciences*. Seoul, Korea. August 2015.

3. Hong SB, **Kim KC**, Kim W^P. Forensic genetic analyses of mitochondrial DNA haplogroups and control region variation in the Korean population. *Eastern Analytical Symposium and Exposition*. Somerset, NJ, USA. November 2014.
4. Hong SB, **Kim KC**^P, Lee SG, Lee KH, Kim W. Mitochondrial DNA haplogroups and homogeneity in the Korean population. *20th World Meeting of the International Association of Forensic Sciences*. Seoul, Korea. October 2014.
5. Jin HJ^P, **Kim KC**, Hwang IW, Lee JY, Kim W. Phylogenetic analysis of two haploid markers of 500-years-old human remains found in the central region of Korea. *20th World Meeting of the International Association of Forensic Sciences*. Seoul, Korea. October 2014.
6. **Kim KC**^P, Lee SG, Kim W. Association study of mtDNA haplogroups with type 2 diabetes in the Korean population. *The 69th Annual Meeting of the Korean Association of Biological Sciences*. Gunsan, Korea. August 2014.
7. Jin HJ, **Kim KC**, Yoon CE, Kim W^P. Forensic and population genetic analyses of eighteen non-CODIS miniSTR loci in the Korean population. *25th Congress of the International Society for Forensic Genetics*. Melbourne, Australia. September 2013.
8. **Kim KC**^P, Hong SB, Hong SB, Hong SS, Lee SG, Lee KH, Lee SB, Kim SH, Kwak KD, Park KW, Han MS, Kim W. Mitochondrial DNA haplogroups studies on the population differentiation in Korean populations. *The 68th Annual Meeting of the Korean Association of Biological Sciences*. Seoul, Korea. August 2013.
9. Kim SH^P, **Kim KC**, Han MS, Kim W. Forensic genetic analysis for the AmpFISTR Yfiler system in the Korean population. *DNA in Forensics 2012*. Innsbruck, Austria. September 2012.
10. Hong SB, Kim SH, **Kim KC**^P, Park MH, Lee JY, Song JM, Han MS, Kim W. Korean Forensic Genetic Data and Concordance for the PowerPlex® ESX 17, AmpFISTR Identifiler®, and PowerPlex® 16 Systems. *The 67th Annual Meeting of the Korean Association of Biological Sciences*. Daejeon, Korea. August 2012.
11. Han MS, **Kim KC**^P, Hong SS, Kim JJ, Kwak KD, Song JM, Kim W. Forensic genetic application of eighteen miniSTR loci in the Korean population. *The 25th Conference of Korean Society of Forensic Sciences*. Seoul, Korea. December 2011.
12. **Kim KC**^P, Cho HI, Kim W. Assessment of Association Between Mitochondrial DNA Haplogroups and Elite Korean Athlete Status. *The 66th Annual Meeting of the Korean Association of Biological Sciences*. Chuncheon, Korea. August 2011.
13. **Kim KC**^P, Jang IH, Kwak KD, Han MS, Kim W. Cross-validation study of Y-STR from ancient DNA. *The 24th Conference of Korean Society of Forensic Sciences*. Seoul, Korea. December 2010.
14. Kim SH, **Kim KC**^P, Kim W, Kim W. High Frequencies of Y Chromosome Haplogroup O2b-SRY465 Lineages in Korea: A Genetic Perspective for the Peopling of Korea. *The 65th Annual Meeting of the Korean Association of Biological Sciences*. Seoul, Korea. August 2010.
15. Han MS, Yoon CE^P, **Kim KC**, Kawk KD, Kim W. Population Genetics of Eighteen miniSTR loci in the Korean population. *The 64th Annual Meeting of the Korean Association of Biological Sciences*. Daejeon, Korea. August 2009.

16. **Kim KC^P**, Yoon CE, Kim W. Ancient mtDNA and Y-SNPs Analyses of Human Remains Found in the Central Region of Korea. *The 64th Annual Meeting of the Korean Association of Biological Sciences*. Daejeon, Korea. August 2009.

Oral presentation

17. **Kim KC**. Development and Application of the Paternity and Kinship Analysis System of DNA Profile Data. *The 24th Conference of Korean Society of Forensic Sciences*. Seoul, Korea. December 2010.

PATENTS

1. “Kit for detecting STRs and method for detecting STRs using the same”, Korean Patent No. 10-1341943, December 2013.
2. “Marker composition for analysis of maternal lineage in Korean”, Korean Patent pending, November 2014.

TEACHING EXPERIENCES and EMPLOYMENT

Lecturer (Mar. 2012 – Jun. 2015)

- Department of Biological Sciences, Dankook University
- General Biology; General Biology 1,2; Experiment of General Biology 1,2; Bioinformatics; Practices in Bioinformatics; Molecular Biology; Experiments of Molecular Biology; Experiments in Genetics; Introduction to Biotechnology

Teaching Assistant (Mar. 2010 – Dec. 2011)

- Department of Biological Sciences, Dankook University
- Experiment of General Biology 1; Experiments of Molecular Biology; Experiments in Genetics; Experiments of Nanogenetics

Research Assistant (Mar. 2009 – Feb. 2010)

- Genetics Laboratory (Prof. Wook Kim), Dankook University

Assistant (Mar. 2008 – Feb. 2009)

- Department of Biological Sciences, Dankook University