AN-DI YIM

Forensic Science Program George Mason University Exploratory Hall, Suite 3400 4400 University Drive, MSN 6E2 Fairfax, VA 63501, USA andiyim2@gmail.com

AREA OF INTEREST

Growth and development, Quantitative genetics, Genotype-phenotype associations Virtual anthropology, Statistical methods, Forensic anthropology

ACADEMIC APPOINTMENTS

Associate Professor August 2023 - Present

Forensic Science Program, George Mason University, VA, USA

Assistant Professor of Anatomy August 2021 - July 2023

Department of Health and Exercise Sciences, Truman State University, MO, USA

Department of Biology, Truman State University, MO, USA

Anatomy Teaching Fellow May 2021 - August 2021

Congdon School of Health Sciences, High Point University, NC, USA

EDUCATION

University of Illinois at Urbana-Champaign, IL, USA

August 2016 - May 2021

Ph.D.

Department of Anthropology

Graduate Minor in Statistics January 2020

New York University, NY, USA August 2014 - August 2016

Master of Arts

Physical Anthropology - Human Skeletal Biology Track

THESIS - Evolution of Genotype and Phenotype of Skeletal Strength in Primates

National Taiwan University, Taiwan September 2008 - June 2013

Master of Science

Department and Graduate Institute of Forensic Medicine

THESIS - Developing Linked STR Markers as A Complementary Tool in Kinship Analysis

National Cheng-Kung University, Taiwan September 2004 - June 2008

Bachelor of Science

Department of Medical Laboratory Science and Biotechnology

TEACHING APPOINTMENTS

Associate Professor August 2023- Present

Forensic Science Program, George Mason University, VA, USA

Assistant Professor August 2021 - July 2023

Department of Health and Exercise Sciences, Truman State University, MO, USA Department of Biology, Truman State University, MO, USA

- Courses taught: Human Anatomy, Human Anatomy Lab, Foundations of Anatomy and Physiology, Foundations of Genetics.
- Serve as course director for Human Anatomy and Human Anatomy Lab, organizing and coordinating course content, work collaboratively with other instructors to optimize teaching strategies.
- Conduct prosection and mentor undergraduate teaching assistants.
- Design interactive lectures and creative assignments to optimize student learning.

Anatomy Teaching Fellow

May 2021 - August 2021

Congdon School of Health Sciences, High Point University, NC, USA

- Assisted PA/AT Human Gross Anatomy lecture and laboratory instruction.
- Performed prosection to demonstrate anatomical structure for students.

Teaching Assistant

August 2016 - May 2021

Department of Anthropology, University of Illinois at Urbana-Champaign, IL, USA School of Molecular and Cellular Biology, University of Illinois at Urbana-Champaign, IL, USA

- Prepared lectures and designed activities for laboratory/discussion sections.
- Created homework assignments and exams questions that reflects students' levels of knowledge to the course materials.
- Led student group projects by providing assistance, feedback and grading.
- Courses assisted: Biological Anthropology, Forensic Anthropology, Human Osteology, Introduction to Anthropology, Forensic Science, Human Anatomy and Physiology I and II.

Instructor June 2019 - May 2021

Department of Anthropology, University of Illinois at Urbana-Champaign, IL, USA

- Incorporated multimedia content into the existing course to enhance student engagement.
- Designed new course materials and online activities to facilitate student participation.
- Courses taught: Biology of Human Behavior, Forensic Science.

Training Staff

January - February 2016

EPAF Field School in Hargeisa, EPAF (Peruvian Forensic Anthropology Team), Hargeisa, Somaliland

- Supervisor: Mr. Jose Pablo Baraybar.
- Taught local students and field school participants on forensic anthropology laboratory methods.
- Wrote forensic anthropology reports. Used forensic photography to document skeletal trauma, biological profile indicators and physical evidence.

RESEARCH APPOINTMENTS

Research Affiliate September 2022 - Present

Department of Anthropology, University of Illinois at Urbana-Champaign, IL, USA

• Collaborate with Dr. Cris Hughes to conduct research on forensic anthropology methods usage and accuracy.

 Conduct research on disparity in forensic anthropology casework, forensic identification, and medicolegal system.

Research Assistant January 2019 - July 2020

Department of Anthropology, University of Illinois at Urbana-Champaign, IL, USA

- National Institute of Justice Award 2018-DU-BX-0213. PI: Dr. Cris Hughes, Co-PI: Dr. Chelsey Juarez.
- Conducted extensive literature review of existing forensic anthropology methods.
- Performed testing of the database, assisted in designing forms, guidelines, and user manual. Contributed to web design using Markdown.
- Created various training materials, including an online wiki, video tutorials and powerpoint slides.
- Facilitate data collection by communicating and working with forensic anthropologists in different institutions.

Visiting Researcher May 2019 - July 2019

Department of Cell Biology and Anatomy, University of Calgary, Canada

- Supervisor: Dr. Benedikt Hallgrimsson.
- Performed QTL analysis of DO mice that incorporates 3D shape data, linear measurements, and mass of different body elements.
- Designed a linear mixed model on the growth trajectories of human limb skeletons.

PROFESSIONAL EXPERIENCE

Forensic Anthropology Consultant

2016 - Present

Various prosecutors offices and law enforcement agencies, Taiwan Champaign County Coroner, IL, USA

- Assisted/consulted on over 30 forensic anthropology cases.
- Analyses performed: forensic significance, biological profile estimation, trauma analysis.

NAGPRA osteologist

May 2023 - Present

The Bernice S. Warren Center for Archaeological Research, Missouri State University, MO, USA

- Performed documentation and analysis on archaeological collections.
- Identified partial/fragmentary human remains and associated grave-goods/objects of cultural significance.

Visiting Scholar July 2022

Washburn University Forensic Anthropology Recovery Unit, Washburn University, KS, USA Fresno State Forensic Anthropology Laboratory, California State University, Fresno, CA, USA

• Conducted forensic anthropology casework and training under the guidance of Drs. Alexandra Klales and Chelsey Juarez.

Intern - Forensic Anthropology Internship Program September 2015 - May 2016 Office of Chief Medical Examiner - The City of New York, NY, USA

- Supervisor: Dr. Bradley Adams.
- Performed research on dismemberment patterns in New York City by conducting case review.
- Created a new system for documenting the internal chain of custody.
- Helped organized outdoor recovery training workshops for law enforcement agencies.

Intern January - May 2015

Molecular Anthropology Laboratory, New York University, NY, USA

- Supervisor: Dr. Todd Disotell.
- Performed DNA extraction, PCR analysis and STR analysis.
- Designed and tested protocols for faunal tooth DNA extraction.

Volunteer March - April 2015

EPAF Field School in Hargeisa, EPAF (Peruvian Forensic Anthropology Team), Hargeisa, Somaliland

- Supervisor: Mr. Jose Pablo Baraybar.
- Performed forensic anthropology laboratory analysis and contributed to report writing.
- Participated in the excavation of mass graves.

 $Medical\ Laboratory\ Scientist\ -\ Toxicology\ Analysis$

December 2013 - August 2014

Tri-Service General Hospital, Taiwan

- Part of the compulsory military service as an Army Reserve Officer (Rank: Second Lieutenant).
- Performed toxicology screening of clinical samples using immunoassay.

Part-time Research Assistant

May 2009 - May 2013

Molecular Psychiatry Laboratory, National Taiwan University Hospital, Taiwan

- Performed DNA extraction of blood samples from several clinical studies.
- Assisted in data entry, determination of DNA concentration and various laboratory tasks.

Intern July - August 2012

Forensic Pathology Division, Institute of Forensic Medicine, Ministry of Justice, Taiwan Forensic Medical Examiner Office, Taipei District Prosecutors Office, Taiwan

- Participated in autopsies of real forensic cases, follow-up with mock reports writing and microscopic pathology examination.
- Assisted and performed external examination of bodies.

PUBLICATIONS

Hughes CE, <u>Yim AD</u>, Juarez CA, Servello J, Thomas R, Passalacqua NV, Soler A. (*In press*) Investigating identification disparities in forensic anthropology casework, *PLOS ONE*

<u>Yim AD</u>, Passalacqua NV. (*In press*) A systematic review and meta-analysis of the effects of race in the criminal justice system with respect to forensic science decision-making: Implications for forensic anthropology, *Humans*

<u>Yim AD</u>, Cowgill L, Katz DC, Roseman CC. (2023) Variation in ontogenetic trajectories of limb dimensions in humans is attributable to both climatic effects and neutral evolution, *Journal of Human Evolution*, 179, 103369

Winburn AP, Yim AD, Stock MK. (2022) Recentering forensic anthropology within a multifaceted body of evolutionary theory: Strengthening method by making theory explicit, American Journal of Biological Anthropology, 179, 535-551

<u>Yim AD</u>, Juarez JK, Goliath JR, Melhado IS. (2022) Diversity in forensic science: Black, Indigenous, and People of Color (BIPOC) representation in different medicolegal fields in the United States, *Forensic Science International: Synergy*, 5, 100280

Hughes CE, Juarez CA, <u>Yim AD</u>. (2021) Forensic anthropology casework performance: Assessing accuracy and trends for biological profile estimates on a comprehensive sample of identified decedent cases, *Journal of Forensic Sciences*, 66, 1602-1616

<u>Yim AD</u>, Konigsberg LW, Hwa HL, Chang CC, Chen JY, Liu HM. (2021) Allometric scaling and growth: evaluation and applications in subadult body mass estimation, *American Journal of Physical Anthropology*, 175, 577-588

Juarez CA, Hughes CE, <u>Yim AD</u>. (2021) A report on the Forensic Anthropology Database for Assessing Methods Accuracy, *American Journal of Physical Anthropology*, 174, 149-150

Adams BJ, Rainwater CW, <u>Yim AD</u>, Alesbury H. (2019) A retrospective study of intentional body dismemberment in New York City: 1996-2017, *Journal of Forensic Sciences*, 64, 1012-1016

<u>Yim AD</u>, Yu YJ, Lee CI. (2014) Establishing a system of 13 new STRs linked with core STR loci for kinship analysis, *The Taiwan Journal of Forensic Medicine*, 6, 56-71

CONFERENCE PAPERS

Hughes CE, <u>Yim AD</u>, Juarez CA, Servello J, Thomas R, Passalacqua NV, Soler A. Investigating identification disparities in forensic anthropology casework, 92nd Annual Meeting of American Association of Biological Anthropologists, April 2023

Juarez CA, Hughes CE, <u>Yim AD</u>. Data on methods usage in forensic anthropology casework from 1972–2022 using the forensic anthropology database for assessing methods accuracy (FADAMA), AAFS 2023 Annual Scientific Conference, February 2023

<u>Yim AD</u>, Stock MK, Winburn AP. Investigating forensic anthropologists' training and understanding of evolutionary theory, AAFS 2023 Annual Scientific Conference, February 2023

<u>Yim AD</u>, Cowgill L, Katz DC, Roseman CC. Variation in ontogenetic trajectories of limb dimensions is attributable to both climatic effects and neutral evolution, 91st Annual Meeting of American Association of Biological Anthropologists, March 2022

Juarez CA, Hughes CE, <u>Yim AD</u>. The current status of methods usage in forensic anthropology casework using the Forensic Anthropology Database for Assessing Methods Accuracy (FADAMA), 91st Annual Meeting of American Association of Biological Anthropologists, March 2022

<u>Yim AD</u>, Juarez JK, Goliath JR, Melhado IS. Drawing parallels: Black, Indigenous, and People of Color (BIPOC) representation in other medicolegal fields, AAFS 2022 Annual Scientific Conference. February 2022

Yukyi N, <u>Yim AD</u>, Go MC, Robledo I. The (colonial) impacts of (Western) forensic anthropology in the international sphere, AAFS 2022 Annual Scientific Conference, February 2022

Go MC, Chu EY, Yukyi N, <u>Yim AD</u>, ..., Robledo I. Pioneers of color: Diversifying the pantheon of forensic anthropology luminaries, AAFS 2022 Annual Scientific Conference, February 2022

<u>Yim AD</u>, Corron L, Stull KE. A new tool for medical image processing in biological anthropology and anatomy research, Experimental Biology 2021, April 2021

<u>Yim AD</u>, Roseman CC. Changing patterns of variability in human lower limb skeleton during growth and the implications for human evolution, 90th Annual Meeting of American Association of Biological Anthropologists, April 2021

Sgheiza V*, <u>Yim AD</u>*. Reference sample optimization for juvenile age estimation from diaphyseal length, AAFS 73rd Annual Scientific Meeting, February 2021

Hughes CE, Juarez CA, <u>Yim AD</u>. Forensic anthropology casework performance: assessing accuracy and trends for biological profile estimates on a comprehensive sample of identified decedenct cases, AAFS 73rd Annual Scientific Meeting, February 2021

<u>Yim AD</u>, Cowgill L, Katz DC, Roseman CC. Climate predicts changes in growth trajectories in modern humans: a mixed model approach, 89th Annual Meeting of American Association of Biological Anthropologists, April 2020

<u>Yim AD</u>, Konigsberg LW, Hwa HL, Chen JY, Liu HM. Subadult body mass estimation from skeletal remains: validation for femoral cross section methods in a contemporary Taiwanese population, AAFS 72nd Annual Scientific Meeting, February 2020

<u>Yim AD</u>, Stull KE, Hwa HL, Liu HM. Subadult age estimation of Taiwanese populations using long bone dimensions from radiographs, 87th Annual Meeting of American Association of Biological Anthropologists, April 2018

Adams BJ, Rainwater CW, <u>Yim AD</u>, Alesbury H. A retrospective study of intentional body dismemberment in New York City: 1996-2016, AAFS 70th Annual Scientific Meeting, February 2018

<u>Yim AD</u>, Williams SA, Disotell TR. Adaptive evolution of TCIRG1: A gene involved in bone development and remodeling, 86th Annual Meeting of American Association of Biological Anthropologists, April 2017

DeCasien AR, <u>Yim AD</u>. Megalencephaly and macrocephaly genes are associated with comparative variation in primate brain size, 86th Annual Meeting of American Association of Biological Anthropologists, April 2017

Wu CH, Lin CY, Liao KH, <u>Yim AD</u>, Yu YJ, Lee CI. Analysis of 15 STR loci in Taiwanese Han population using Investigator HDplex and Investigator IDplex, 2013 Conference on Forensic Science, Taiwan Academy of Forensic Sciences, September 2013

<u>Yim AD</u>, Lin CY, Yu YJ, Lee CI. Developing linked STR markers as a complementary tool in kinship analysis, 2012 Conference on Forensic Science, Taiwan Academy of Forensic Sciences, September 2012

AWARDS AND GRANTS

2022 - Present - NAGPRA Consultation/Documentation Grant (subaward) (\$ 38,444)

National Park Service

2022 - AAA Short-term Visiting Scholarship (\$ 1,000)

American Association for Anatomy

2022 - Course Hero Teaching Grant (\$ 2,000)

Course Hero

2022 - Universal Design for Learning Course Redesign Award (\$ 500)

Academic Affairs, Truman State University

2021 - 2023 - FSF Kenneth S. Field Grant (\$ 1,000)

Forensic Sciences Foundation

2018, 2021 (Spring) - List of Teachers Ranked Excellent

University of Illinois at Urbana-Champaign

2021 - Demitri B. Shimkin Graduate Student Paper Award

Department of Anthropology, University of Illinois at Urbana-Champaign

2021 - Conference Presentation Award

Graduate College, University of Illinois at Urbana-Champaign

2018, 2021 - Pollitzer Student Travel Award

American Association of Biological Anthropologists

2021 - AAA Student Registration Award

American Association for Anatomy

2021 - SSE Membership Award

Society for the Study of Evolution

2021 - Anthropology Section Diversity and Inclusion Award

American Academy of Forensic Sciences

2020 - 2022 - Doctoral Dissertation Research Improvement Grant (\$ 11,687)

National Science Foundation

2019 - 2021 - Dissertation Fieldwork Grant (\$ 9,335)

Wenner-Gren Foundation for Anthropological Research

2017, 2018, 2020 - Conference Travel Fund (\$ 250 each)

Department of Anthropology, University of Illinois at Urbana-Champaign

2019 - Dissertation Travel Grant (\$ 3,931)

Graduate College, University of Illinois at Urbana-Champaign

2017 - Summer Research Assistance Award (\$ 3,000)

Department of Anthropology, University of Illinois at Urbana-Champaign

2016 - Meeting Travel Fund (\$ 250)

Masters Program in Physical Anthropology, New York University

SKILLS

Language

- Japanese: Japanese-Language Proficiency Test Level N3 (limited working fluency)
- Mandarin Chinese: native fluency

Computer program

Amira, Mr. Bayes, Bayes Traits, HyPhy, Arlequin, LINKAGE, Word, Excel, Powerpoint, FORDISC

Programming language

R, LaTex, Markdown, SQL, Unix Shell

CERTIFICATES, LICENSURE, MEMBERSHIPS

Graduate Teacher Certificate, University of Illinois at Urbana-Champaign

Associate Member, American Academy of Forensic Sciences

Member, American Association of Biological Anthropologists

Graduate Student Member, American Association for Anatomy

License of Forensic Medical Examiner in Taiwan

License of Medical Laboratory Scientist in Taiwan

GUEST LECTURES AND INVITED TALKS

At Truman State University:

• September 2022 - (JUST 281) Introduction to Forensic Science - Topic: Introduction to Death Investigation and Forensic Anthropology

At High Point University:

• July 2021 - (PAS 5101) Gross Anatomy - Topic: Head and Neck Organization, Triangles of the Neck

At University of Illinois at Urbana-Champaign:

- April 2021 (ANTH 240) Biological Anthropology Topic: Introduction to Forensic Anthropology and Human Rights Investigation
- May 2019 (ANTH 101) Introduction to Anthropology Topic: Forces of Evolution
- May 2019 (ANTH 101) Introduction to Anthropology Topic: Introduction to Anthropology, History of Evolutionary Thoughts
- April 2019 (ANTH 240) Biological Anthropology Topic: Introduction to Forensic Anthropology and Human Rights Investigation
- November 2017 (ANTH 241) Human Variation Topic: Multiple Quantitative Traits and Evolution of Quantitative Traits
- November 2017 (ANTH 241) Human Variation Topic: Anthropometric Variation: Measures

At University of Calgary

• June 2019 - (Invited Talk) Ontogeny, Evolution, and Ecogeographic Patterns of Human Limb Morphology

At Brooklyn College:

• November 2015 - (CORC 3307) Forensic Science - Topic: Forensic DNA Typing

SERVICE AND OUTREACH

Service to institution

• Faculty Advisor 2022 - 2023 Pre-Physician Assistant Club, Pre-OT/PT Club (Truman State University)

• Panelist 2023

Universal Design for Learning Workshop (Truman State University)

• Member

Virtual Anatomy Planning Committee (Truman State University)

Service to discipline

• Reviewer 2022 - Present American Journal of Biological Anthropology, Human Biology, Forensic Anthropology

• Program Committee 2022 - Present American Association of Biological Anthropologists annual meeting

• Ad hoc committee on Awards	2021 - Present
American Academy of Forensic Sciences, Anthropology Section	
AABA Committee on Diversity International	2021 - Present
American Association of Biological Anthropologists	0000
Scientific Session Moderator American Academy of Ferroscia Sciences appual scientific conference	2022
American Academy of Forensic Sciences annual scientific conference	2021 2022
Scientific Session Chair American Association of Biological Anthropologists appual meeting	2021 - 2022
American Association of Biological Anthropologists annual meeting • AABA Auction Committee	2016 - 2019
American Association of Biological Anthropologists annual meeting	2010 - 2019
• Decolonizing Anthropology Seminar Graduate Student Panelist	April 2021
Department of Anthropology, University of Illinois at Urbana-Champaign	April 2021
• Social Media Representative	April 2016
American Association of Biological Anthropologists annual meeting	11p111 2010
Outreach	
• Speaker	August 2023
Topic: What is forensic anthropology?	
FBI BAU and Fairfax Police Department Training Day at GMU's Forensic	Anthropological
Outdoor Research Facility	I 0000
• Speaker	January 2023
Topic: What is forensic anthropology?	
Northest Missouri (NEMO) Science Teacher Consortium	1 0000
Anatomy Instructor 2022 ATCH Transport Health and Anadamas	June 2022
2022 ATSU-Truman Healthcare Academy	Manah 2022
• Presenter Tenia: Evalutionary population genetic approaches to study human skelet.	March 2022
Topic: Evolutionary population genetic approaches to study human skelet: Anthropology Club, Truman State University	ar variation
• Presenter	July 2021
Topic: The development and current status of forensic anthropology in Ta	·
41st Annual Conference of North America Taiwanese Professors' Association	
• Anatomy Instructor	July 2021
2021 Governor's School of North Carolina West	July 2021
• Guest Speaker	May 2021
Topic: The role of forensic anthropology in medicolegal death investigation	·
2021 Symposium of Taiwanese Scholar Association in St. Louis	
•	
Media apperances	
• "A Va. research farm prepares to receive a key addition — a dead body" (
Post)	August 2023
• "Forensic scientists are generally whiter, less diverse than US population the	, ,
says" (USA Today)	September 2022
• The Arch and Anth Podcast, Episode 119	April 2020
• People & Power, Somaliland: Kill All but the Crows (Al Jazeera English)	June 2016