

## Curriculum Vitae

**Name:** Andrea Alveshere  
**Department:** Sociology/Anthropology and Chemistry  
**Rank:** Associate Professor

### Professional Memberships/Affiliations

American Academy of Forensic Sciences (AAFS) – Criminalistics  
American Association of Anthropological Genetics (AAAG)  
American Association of Biological Anthropologists (AABA)  
Illinois State Academy of Sciences (ISAS)

**Education:** **2012 Ph.D. in Anthropology, Human Genetics Minor.** University of Minnesota, Minneapolis. Foci: Archaeology, Biological Anthropology, and Molecular Genetics.

**1996 B.A. in Anthropology.** University of Washington, Seattle.

### Teaching Experience:

- **8/2014 to Present: Tenure Track Faculty (Associate Professor as of 8/2021) – Western Illinois University, Department of Sociology and Anthropology with a split assignment in Chemistry.** Teaching three to six courses per semester, leading undergraduate research, serving on graduate committees. Courses taught: Introduction to Physical Anthropology and Archaeology, Introduction to Cultural Anthropology, Fantastic Archaeology, Physical Anthropology Methods, Archaeology Field Methods & Archaeological Laboratory Methods (WIU Field School), Dynamics of Cultural Change, Forensic Anthropology, Forensic Toxicology and DNA Analysis, Forensic Serology and DNA Analysis, Applications of Forensic Chemistry, Primate Ecology, Elementary Forensic Techniques, Forensic Toxicology and DNA Analysis, Graduate Chemistry Seminar. Oversight of undergraduate and graduate directed research in Anthropology and Chemistry; service on Chemistry Master's thesis committees.
- **8/2013 to 5/2014: Instructor – Western Illinois University, Department of Sociology and Anthropology.** Teaching three undergraduate courses per semester. Courses taught include: Introduction to Physical Anthropology and Archaeology, Introduction to Cultural Anthropology, World Culture Regions - The Middle East, and Forensic and Molecular Anthropology. Oversight of undergraduate directed research.
- **8/2003 to 12/2005: Graduate Instructor/Teaching Assistant, University of Minnesota, Anthropology Department.**

### Professional Experience:

- **2005-2009 Forensic Scientist – DNA/Biology Section, Minnesota Bureau of Criminal Apprehension Forensic Science Laboratory.** Serological testing and genetic analysis of biological evidence submitted by law enforcement agencies, report-writing, courtroom testimony, development and validation of lab methods, composition, updating, and editing of standard operating procedures.
- **8/2003 to 12/2005: Graduate Instructor/Teaching Assistant, University of Minnesota, Anthropology Department.**
- **1999-2000 Archaeological Project Supervisor - Burns and McDonnell Engineering, Kansas City, Missouri.** Management and supervision of field crew. Planning and implementation of research strategy. Survey and testing of historic and prehistoric sites. Project area background research. Production of maps and site records. Artifact and sample cataloging and processing. Presentation of progress reports to client and state review board.
- **1996-1999 Field/Laboratory Archaeologist – Multiple Agencies.** Project-length employment contracts included Louis Berger and Associates, Marion, Iowa; Office of the State Archaeologist, Iowa City, Iowa; Hemisphere Archaeological Resources, Minneapolis, Minnesota. Survey and testing of historic and prehistoric sites. Project area background research. Production of maps and site records. Artifact and sample cataloging and processing.

### Research Experience:

- **8/2014 to Present: Western Illinois University, Department of Sociology/Anthropology and Chemistry.** Established WIU Taphonomic Research Sites and histamine, taphonomy, and NF1 field/lab research programs. Conducted archaeological field research in conjunction with supervising the WIU Archaeological Field School, and conducted laboratory analyses of finds recovered. Served as the faculty mentor for forty (40) CHEM 490 Senior Project Laboratory research projects, five ANTH 490 Directed Research projects, one CHEM 390 Junior Project Laboratory research project, and three CHEM 491 Undergraduate Honors Thesis projects.
- **2002-2003: Research Assistant - University of Minnesota, Animal Genomics Laboratory. DNA extraction from blood samples.** PCR amplification, electrophoresis, BAC library screening, and preparation of DNA samples for sequencing. Preparation and sterilization of laboratory solutions and buffers. Maintenance and sterilization of glassware and disposable plastics.

### Publications/Scholarly/Creative Activities:

- **Alveshere, Andrea J. 2019.** Contextualizing Prehistoric Features and Recent Activities on Settlement Area A of the Orendorf Mississippian Site, Fulton County, Illinois. *Illinois Archaeology* 31:166-194.
- **Alveshere, Andrea J. 2019.** "Forces of Evolution," in *Explorations: An Open Invitation to Biological Anthropology*, Shook, B, Nelson, K, Aguilera, K, Braff, L, Eds. Washington DC, American Anthropological Association. <http://explorationstextbook.com/>
- **Alveshere, Andrea J. 2012.** *Multivariate DNA Taphonomy: Evaluating the Effects of Environmental Context, Specimen Properties, and Laboratory Strategies on the Preservation and Detection of DNA in Ancient and Challenging Specimens*. Doctoral dissertation, University of Minnesota, Minneapolis.
- **Curran Sabrina, and Andrea Torgerson\*, editors. 2004.** *Human Evolution Laboratory Manual*. Kendall Hunt, Dubuque, IA.
- **Reed, K.M., L.D. Chaves, M.K. Hall, T.P. Knutson, J.A. Rowe, A.J. Torgerson\*. 2003.** Microsatellite loci for genetic mapping in the turkey (*Meleagris gallopavo*). *Animal Biotechnology* 14(2):119–131.

### Conference Presentations (most relevant):

- **2022 Alveshere, Andrea J., Lynne Kelly, and Vincent M. Riccardi.** "Art, Orality and Migration: The roles of NF1, mnemonics, and somatic adaptation in the hominin biocultural toolkit. Paper presented at the 91<sup>st</sup> Annual Meeting of the American Association of Biological Anthropologists, March 24<sup>th</sup>, 2021, Denver, Colorado.
- **2021 Alveshere, Andrea J. and Vincent M. Riccardi.** "The 'Expansion Switch,' the 'Kill Switch' and NF1." Poster presented at the Childrens Tumor Foundation's annual NF Conference (virtual due to COVID-19 pandemic).
- **2021 Alveshere, Andrea J. and Vincent M. Riccardi.** "A candidate mechanism for hominin brain expansion: NF1, DHEA/S, and the ERK/MAPK cell signal cascade." Paper presented at the 90<sup>th</sup> Annual Meeting of the American Association of Physical Anthropologists, April 19<sup>th</sup>, 2021, Baltimore, Maryland (virtual due to COVID-19 pandemic).
- **2020 Alveshere, Andrea J. and Vincent M. Riccardi.** "The Human NF1 Locus: A Unique Hominin Genotype with Potential Evolutionary Significance." Paper presented at the 89<sup>th</sup> Annual Meeting of the American Association of Physical Anthropologists, April 18<sup>th</sup>, 2020, Los Angeles, CA (virtual due to COVID-19 pandemic).
- **2018 Alveshere, Andrea J., Riccardi, Vincent M., Wolkenstein, Pierre, Oswaldo C. Rodrigues, Luiz, Giovannini, Marco.** "The NF1 Gene in Early Modern Humans." Poster presented at the Joint Global Neurofibromatosis Conference, Paris, France, November 3rd, 2018.

### National Service:

- **2014-Present** Forensic Science Education Program Accreditation Commission (FEPAC) On-Site Evaluator, American Academy of Forensic Sciences
- **2017-2020** Committee on Native American Relations, Society for American Archaeology

### University Service:

- **2019 – 2021** Chair, WIU Council for General Education (Vice Chair 2021-2022)
- **2016 – Present** University Technology Advisory Group
- **2014 – Present** Women in Science Committee
- **2016 – Present** College of Arts and Sciences Undergraduate Research Grant Committee

### Department Service:

- **2015 – 2021** Faculty Advisor, Western Anthropology and Sociology Club
- **2015 – 2019** Assessment Committee Chair
- **2014 – Present** Forensic Chemistry Committee (Chemistry Department)

### Grants and Special Awards:

- **2022-2023 WIU University Research Council Grant.** "Utilization of new, portable DNA sequencing technology to examine the expression of Neurofibromin, Ras, and associated human tumor proteins in the model organism, social amoeba *Dictyostelium discoideum*." \$5625.00
- **2018 WIU Summer Stipend.** "Creation of a Three-Dimensional Image Teaching Collection to Enhance and Expand Online WIU Anthropology Course Offerings." WIU Foundation and the Office of Sponsored Projects, \$3,500.
- **2018 National Science Foundation Major Research Instrumentation Grant Award.** Served as a collaborator on the proposal "MRI: Acquisition of a Quadrupole Time-of-Flight (Q-TOF) LC/MS System for Research and Training at Western Illinois University and Partner Institutions" submitted with WIU faculty Ligu Song, Jenq-Kuen Huang, and Meshack Afithile, and colleagues Audra Sostarecz (Monmouth College), and Caitlin Deskins (Quincy University). Total award: \$299,742.00
- **2017 National Science Foundation Major Research Instrumentation Grant Award.** Served as a collaborator on the proposal "MRI: Acquisition of an SEM-EDS System: Encouraging analytical thinking with analytical equipment in undergraduate education,

\* Andrea J. Torgerson is the former legal name of Andrea J. Alveshere

research, and K-12 outreach” submitted with WIU faculty Thomas Hegna, Brian Bellott, Andrea Porrás-Alfaro, Kenneth McCravy, Kyle Mayborn, and Leslie Melim. Total Award: \$709,312.00

- **2016-2017 WIU University Research Council Grant.** “Optimization and Application of a Histamine Quantitation Protocol for Food Biochemistry and Forensic Time-Since-Death Investigations.” \$6666.00
- **2015 WIU Summer Stipend.** “Identification and Characterization of Microenvironmental Locales and Establishment of Study Sites for Experimental Taphonomic Research in West-Central Illinois.” \$3,500.