Curriculum Vitae

Name: Andrea Alveshere
Academic Departments: Sociology/Anthropology and Chemistry
Faculty Rank: Associate Professor

Education: **2012 Ph.D. in Anthropology, Human Genetics Minor.** University of Minnesota, Minneapolis.
Specialty Areas: Archaeology, Biological Anthropology, and Molecular Genetics.
1996 B.A. in Anthropology. University of Washington, Seattle.

Professional Experience:

- **8/2023 to Present: Director, Office of Assessment, Accreditation and Strategic Planning – Western Illinois University.** Directing consultation and collaboration for University activities to centralize assessment, accreditation, and strategic planning; coordinating assessment and reassessment activities for the institution and individual disciplines; developing continuous improvement models. Survey software administrator for Academic Affairs.
- **2005-2009 Forensic Scientist: DNA/Biology Section, Minnesota Bureau of Criminal Apprehension Forensic Science Laboratory (BCA Laboratory).** Serological testing and genetic analysis of biological evidence submitted by law enforcement agencies, report-writing, court room testimony, development and validation of lab methods, composition, updating, and editing of standard operating procedures.
- **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.
- **1999 Senior Archaeological Technician – Hemisphere Field Services, Inc., Minneapolis, Minnesota.** Survey, testing, and excavation of historic and prehistoric sites. Processing and cataloging of finds and samples recovered from all phases of fieldwork.
- **1998-1999 Archaeological Technician – Office of the State Archaeologist, Iowa City, Iowa.** Survey and excavation of prehistoric sites. Processing of artifacts and flotation samples, cataloging, and computer database manipulation. Microscopic analysis and identification of charred and uncharred seeds and other plant remains. Identification of element, species, and tool type for modified skeletal remains.
- **1996-1997 Archaeological Technician - Louis Berger and Associates, Marion, Iowa.**
Survey, testing, and excavation of historic and prehistoric sites. Artifact processing and computer database management. Typing and illustration of prehistoric ceramics, identification and date estimation of historic artifacts. Project area background research, preparation of report graphics and tables, and final report production.

Teaching Experience:

- **8/2013 to Present: Anthropology Faculty Member – Western Illinois University (Instructor 2013-2014, Assistant Professor 2014-2021, Associate Professor as of 8/2021); split assignment between the Departments of Sociology/Anthropology and Chemistry since 8/2014.** Teaching three to seven courses per semester. 20+ different courses taught, including: Introduction to Cultural Anthropology; Introduction to Physical Anthropology and Archaeology; World Culture Regions: the Middle East; Fantastic Archaeology: Ancient Astronauts, Shape Shifters, and Bigfoot; Methods in Physical Anthropology; Archaeology Field Methods & Archaeological Laboratory Methods (WIU Field School); Old World Archaeology; Anthrozoology; Primate Ecology; Dynamics of Cultural Change; Forensic Anthropology; Forensic Toxicology and DNA Analysis; Forensic Serology and DNA Analysis; Applications of Forensic Chemistry; Elementary Forensic Techniques; Chemistry Graduate Seminar. Oversight of undergraduate and graduate directed research and internship/practicum courses in Anthropology, Chemistry, and Museum Studies; service on Chemistry and Liberal Arts and Sciences Master's thesis committees.
- **2007: Mentor – Epstein-Rhoads Internship Program, DNA/Biology Section, Bureau of Criminal Apprehension Forensic Science Laboratory.** Research Project: Evaluation of the Tecan Freedom EVO for automated extraction of DNA from casework knowns and convicted offender database samples. Intern: Lee Vandermarliere, UW River Falls.
- **8/2003 to 12/2005: Graduate Instructor/Teaching Assistant, University of Minnesota, Anthropology Department.** Courses taught include Forensic and Molecular Anthropology (lecture and laboratory) and Human Evolution (laboratory)

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

Research Experience:

- **8/2014 to Present: Western Illinois University, Department of Sociology/Anthropology and Chemistry.** Established WIU Taphonomic Research Sites and histamine, taphonomy, NF1, and social amoeba field/lab research programs. Conducted archaeological field research at the Orendorf Site (AD <1000-1300) in conjunction with supervising the WIU Archaeological Field School (2017-2021), and conducted laboratory analyses of finds recovered. Served as the faculty mentor for more than 50 student research projects for CHEM 490 Senior Project Laboratory, ANTH 490 Directed Research, ANTH 494 Anthropology Internship, CHEM 390 Junior Project Laboratory, CHEM 491 Undergraduate Honors Thesis, and MST 580 Museum Studies Practicum course credits.
- **2003-2005: Department of Anthropology Genetics Laboratory – University of Minnesota.** Selected all equipment necessary for establishment of a molecular genetics laboratory within the University of Minnesota Department of Anthropology's existing Archaeobiology Laboratory; determined and documented the appropriate safety protocols and standard operating procedures; developed and implemented a laboratory course to utilize the genetics equipment.
- **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.
- **1996: Laboratory Assistant - University of Washington, Anthropology Department**. Processing and analysis of faunal remains from Homestead Cave, Utah.

Specialized Training:

- **2015: WIU First Summer Proposal Planning Workshop**
- **2015: WIU College of Arts and Sciences Assessment Workshop**
- **2005-2007: In-service Training, Bureau of Criminal Apprehension Forensic Science Laboratory (BCA Laboratory)**
  Trained and Qualified in Nuclear DNA Casework
  Trained and Qualified in Serology/Screening
  Trained and Qualified in Convicted Offender DNA Database
- **2007: Courtroom Testimony Training Program.** Presented by Mark Nielsen, BCA Laboratory.
- **2007: DNA Auditing Workshop.** Presented by Heather Seubert (FBI) at the BCA Laboratory.
- **2006: President's DNA Initiative Forensic Biology Screening Workshop.** Presented by Beth Ordeman at the National Forensic Science Technology Center, Largo, Florida.
- **2006: Capillary Electrophoresis and Forensic DNA Typing.** Dr. John Butler (NIST) at the BCA Laboratory.
- **2006: Combined DNA Index System (CODIS) v5.7.2 Training Program.** Presented by Meghan Carlin and Inez Kendall, Science Applications International Corporation (SAIC), Vienna, Virginia.
- **2005: Forensic DNA Statistics Course.** Presented by Dr. George Carmody (Carleton University, Ottawa) at the BCA Laboratory.
- **2005: Epstein-Rhoads Internship Program, DNA/Biology Section, Bureau of Criminal Apprehension Forensic Science Laboratory.** Research Project: Ultraviolet Inactivation of DNA for Contamination Prevention.
- **2003: Ancient DNA Internship Program - PaleoDNA Laboratory, Lakehead University, Thunder Bay, Ontario.** Research Project: Human Nuclear DNA analysis of ancient mummified tissue from Dakhleh Oasis, Egypt.
- **1996: Volunteer Field Archaeologist and Lab Assistant – University of San Diego Excavation** Nahal Tillah, Negev Desert, Israel. Excavation of a Chalcolithic/Early Bronze Age site in Israel.
- **1995: Trainee - University of California, San Diego, Archaeological Field School.** Excavation of the Nahal Tillah Site, Negev Desert, Israel. Laboratory processing of Nahal Tillah lithic and ceramic artifacts, Hebrew Union College, Jerusalem, Israel.

Publications/Scholarly/Creative Activities:

- **2020: Chartered a WIU chapter of the Lambda Alpha National Anthropology Honor Society, Xi of Illinois.**
- **2019: Co-hosted/co-organized the 2019 Mississippian Archaeology Conference at the Illinois State Museum, Dickson Mounds with colleagues at the Illinois State Museum.** Individual share of the responsibilities included soliciting, reviewing, and accepting all podium and poster presentation abstracts; creating and printing the meeting program.
- **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.

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

- **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:

- **2023 Alveshere, Andrea J.** "The Social Amoeba in Forensic Science: Microbial Fingerprinting and Epigenetics." Paper presented at the 75th Annual meeting of the American Academy of Forensic Sciences, February 17th, 2023, Orlando, Florida.
- **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 91st Annual Meeting of the American Association of Biological Anthropologists, March 24th, 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 90th Annual Meeting of the American Association of Physical Anthropologists, April 19th, 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 89th Annual Meeting of the American Association of Physical Anthropologists, April 18th, 2020, Los Angeles, CA (virtual due to COVID-19 pandemic).
- **2019 Alveshere, Andrea J**. "Recent Research at the Orendorf Site" Conference podium presentation at the 2019 Mississippian Archaeology Conference at the Illinois State Museum – Dickson Mounds, Lewiston, Illinois, July 27th, 2019.
- **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.
- **2018 Alveshere, Andrea J.** "Burning Down the House: Evidence for Controlled and Uncontrolled Structure Fires among the Late Woodland and Mississippian Settlements at the Orendorf Site in Fulton County, Illinois." Paper presented at the 83rd Annual Meeting of the Society for American Archaeology, Washington, D.C., 4/12/2018.
- **2017 Barker, Alex, Alveshere, Andrea, Centellas, Kate, Radde, Hugh, Castaneda, Quetzil, Little, Walter, Nitsan, Tal,** "Fielding Knowledge Not Harassment: Promoting Safer Field Schools." Conference Roundtable Presentation at the American Anthropological Association's 116th Annual Meeting, Washington, D.C., November 30th, 2017.
- **2016 Alveshere, Andrea J.** "Field and Forest, Pond and Stream: Experimental Taphonomic Research in West-Central Illinois." Paper presented at the Society for American Archaeology Annual Meeting, Orlando, FL.
- **2015 Alveshere, Andrea J.** "Burial laws and protocols: Elucidating processes and optimizing strategies via the Taphonomic Information System (TAPHONOMIS)." Poster presented at the American Association of Physical Anthropologists Annual Meeting. Saint Louis, MO.
- **2013 Alveshere, Andrea J.** "Forgotten Studies, Buried Data: Unearthing the Hidden Potential of Interdisciplinary Archaeological Records." Paper presented at the Society for American Archaeology Annual Meeting. Honolulu, HI.
- **2008 Torgerson*, Andrea J.** "Quick, Inexpensive, and Automated: Extraction of Convicted Offender Database and Casework Known samples using the Tecan Freedom EVO, Chelex 100, and MS Excel." Paper presented at the Midwestern Association of Forensic Scientists DNA Automation Workshop. Madison, WI.
- **2007 Torgerson*, Andrea J. and Jason A. Simser.** "A UV threshold for inactivation of contaminant DNA for forensic DNA typing." Paper presented at the 6th Annual Advanced DNA Technical Workshop, Captiva Island, Florida.
- **1999 Weinrich, Jason K. and Andrea J. Torgerson*.** "The Cowan Site Bone Tool Assemblage." Paper presented at the 57th Annual Plains Anthropological Conference, Sioux Falls, South Dakota.
- **1999 Dunne, Michael, Andrea Torgerson* and Aaron Rucker.** "Cowan Site Archaeobotanical Analysis." Paper presented at the 111th Annual Meeting of the Iowa Academy of Sciences, Ames, Iowa.
- **1999 Torgerson*, Andrea J. and Jason K. Weinrich.** "A Comparison of Modified Bone Assemblages From the Great Oasis Cowan Site and the Mill Creek Kimball and Phipps Sites: Great Oasis at the Threshold of the Initial Middle Missouri." Paper presented at the 111th Annual Meeting of the Iowa Academy of Sciences, Ames, Iowa.
- **1998 Scullin, Michael, Jason K. Weinrich and Andrea J. Torgerson*.** "The Jones Site (21BE5): Terminal Cambria Focus." Paper presented at the 56th Annual Plains Anthropological Conference, Bismark, North Dakota.

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

Selected Service Activities:

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
- **2007-2009:** DNA Auditor, National Forensic Science Technology Center (NFSTC) Assessment Program

University Service:

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

Department Service:

- **2020 – Present:** Faculty Advisor for the WIU chapter of the Lambda Alpha National Anthropology Honor Society, Xi of Illinois**.**
- **2019 – Present:** Sociology and Anthropology (Soc/Anth) department Webmaster
- **2014 – Present:** Member of the Forensic Chemistry Program Committee (Chemistry Department)
- **2023:** Member of the Soc/Anth Personnel Committee
- **2020 – 2021:** Member of the Soc/Anth Assessment, Student Recruitment and Retention, and Technology committees.
- **2015 – 2021:** Faculty Advisor, Western Anthropology and Sociology Club
- **2019 – 2020:** Chair of the Soc/Anth Technology committee
- **2019 – 2020:** Member of the Soc/Anth Assessment, Planning, and Student Recruitment and Retention committees.
- **2015 – 2019:** Soc/Anth Assessment Committee Chair
- **2018 – 2019:** Member of the Soc/Anth Executive, Student Recruitment and Retention, Technology, and Development Committees, and Technology Representative
- **2017 – 2018:** Member of the Soc/Anth Executive, Student Recruitment and Retention, and Development Committees, and Spring Semester Technology Representative
- **2016 – 2017:** Member of the Soc/Anth Executive, Student Recruitment and Retention, and Development Committees
- **2015 – 2016:** Member of the Soc/Anth Executive, Planning, and Development Committees
- **2014 – 2015:** Member of the Soc/Anth Development Committee

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 Liguo Song, Jenq-Kuen Huang, and Meshack Afitlhile, 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, research, and K-12 outreach" submitted with WIU faculty Thomas Hegna, Brian Bellott, Andrea Porras-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: Awarded $1,000.00 toward research costs from the WIU Office of Sponsored Projects** for completing the First Summer Proposal Planning Workshop and Submitting an external grant proposal.
- **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.

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

- **2009: University of Minnesota Department of Anthropology Block Grant** for doctoral database analysis and troubleshooting.
- **2006: University of Minnesota Department of Anthropology Block Grant** for laboratory analysis of doctoral ancient DNA samples.
- **2004: University of Minnesota Complexity Institute Emergence in Complex Systems Grant** for doctoral pilot study.
- **2004: University of Minnesota Department of Anthropology Block Grant** for doctoral pilot study.
- **2003: University of Minnesota Graduate Research Partnership Program Grant** for fieldwork and sample collection in South Africa.
- **2003: University of Minnesota Complexity Institute Emergence in Complex Systems Grant** for fieldwork and sample collection in South Africa.

Current Professional Memberships/Affiliations

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

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