

Christina Ryder
Curriculum Vitae

Department of Anthropology
University of Colorado, Boulder
1350 Pleasant Street Boulder, CO
Christina.Ryder@colorado.edu
(215) 622 – 5199

Education

2017 – (2021)	Ph.D. Candidate, Biological Anthropology, University of Colorado, Boulder, CO
2014 – 2017	M.A., Anthropology, New York University, NY, NY
2010 – 2014	B.Sc., Biological Anthropology, Pennsylvania State University, University Park, PA
2010 – 2014	B.Sc., Biology, Pennsylvania State University, University Park, PA

Teaching Appointments

2017 – present	Graduate Student Instructor and Teaching Assistant Department of Anthropology, University of Colorado, Boulder Course taught as instructor: Introduction to Biological Anthropology I (Fall 2020) Course taught as lab instructor: Lab in Biological Anthropology I (Fall 2018, 2019, 2020) Lab in Biological Anthropology II (Spring 2018, 2019, 2020) Course taught as teaching assistant: Introduction to Biological Anthropology I (Fall 2017)
2015 – 2017	Adjunct Lecturer Department of Anthropology and Archaeology, Brooklyn College Course taught as instructor: Forensic Anthropology (Fall 2015, 2016; Spring 2015, 2016, 2017; Summer 2016, 2017)
2013	Teaching Assistant Department of Biology, Pennsylvania State University Course taught as lab instructor: Lab in Biology I (Fall 2013)

Research Grants and Fellowships

2020	University of Colorado, Boulder Graduate Summer Research Fellowship (\$6,000)
2019	The Leakey Foundation Grant (\$8,340) Title: Saving old bones: Using near-infrared spectroscopy to predict collagen yield in bone.
2019	The Wenner-Gren Foundation Dissertation Fieldwork Grant (\$19,712) Title: Saving old bones: Using near-infrared spectroscopy to predict collagen yield in bone.
2019	Cartwright Award, University of Colorado at Boulder (\$2,333)
2018	Graduate Student Travel Grant, University of Colorado at Boulder (\$2,100)
2017	New Graduate Funding, University of Colorado at Boulder (\$1,750)
2017	Center to Advance Research and Teaching in Social Sciences Graduate Student Award, University of Colorado at Boulder (\$1,000) Title: Near-Infrared Spectroscopy to Predict Collagen Yield
2015	Graduate Student Travel Grant, New York University (\$200)

Scholarly Presentations

2019	American Association of Physical Anthropologists. Podium Presentation: Near-Infrared Spectroscopy to Predict Collagen Yield.
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- 2018 American Association of Physical Anthropologists. Poster Presentation: Monitoring diagenesis of enamel in East African fossil fauna and implications for inferring trophic level from trace element analysis.
- 2018 Paleoanthropology Society. Poster Presentation: Testing the methodological utility of trace element analysis for detecting dietary differences in fossil fauna from Turkana.
- 2017 American Association of Physical Anthropologists 2017. Poster Presentation: Trace element evidence for trophic level in extant mammals from Laikipia, Kenya: implications for eastern African fossil hominin diet reconstructions.

Publications

- 2019 Sponheimer, M., **Ryder, C.**, Fewlass, H., Smith, E.K., Pestle, W.J., Talamo, S. Saving Old Bones: a non-destructive method for bone collagen prescreening. *Scientific Reports* 9: 13928.

Fewlass, H., Talamo, S., Kromer, B., Bard, E., Tuna, T., Fagault, Y., Sponheimer, M., **Ryder, C.**, Hublin, J.J., Perri, A. and Sázlová, S. Direct radiocarbon dates of mid Upper Palaeolithic human remains from Dolní Věstonice II and Pavlov I, Czech Republic. *Journal of Archaeological Science: Reports* 27: 102000.

Research Experience

- 2017 – present Nutrition and Isotope Ecology Lab (PI: Dr. Matt Sponheimer)
Laboratory manager. Actively manage day to day laboratory operations and maintain equipment. Analyzed nutritional, near-infrared elemental (plants, hair, hard tissues), and isotopic data for a range of sample types (i.e., hair, fecals, bone, enamel, plant tissues).
- 2015 – 2017 Anthropological Isotope Laboratory (PI: Dr. Rhonda Quinn)
Analyzed bulk enamel samples with trace elemental analysis for Sr, Ca, Mg, Ba of East African fauna.
- 2015 – 2016 Disotell Lab (PI: Dr. Todd Disotell)
Extracted, amplified, and sequence human DNA samples.

Project Experience

Saving Old Bones: Using near-infrared spectroscopy to predict collagen yield in bone.

This project develops an application of near-infrared spectroscopy to prescreen bone for collagen preservation. Our application offers an inexpensive, non-destructive, and rapid method to determine the collagen content of bones prior to destructive ZooMS, C¹⁴ Dating, stable or isotope analyses.

Project Leader: Christina Ryder (University of Colorado, Boulder)

Project Funder: Wenner-Gren Foundation & Leakey Foundation

Harvest: Plant foods in human evolution

This project explores the dietary choices made by early hominins. We collected and processed plant tissue samples from Kruger National Park, South Africa then measure acid detergent fiber, neutral detergent fiber, crude protein, and lipid content to understand nutritional landscape in a modern savanna ecosystem.

Project Leader: Amanda Henry (Leiden University)

Project Funder: European Research Council Starting Grant

Departmental Service

2019 – present Anthropology Graduate Student Association, Treasurer

2018 – present Co-Organizer of Biological Anthropology Student Speaker Series

Professional Memberships

2017 – present Paleoanthropology Society, Member

2014 – present American Association of Biological (Physical) Anthropologists, Member