

## Curriculum Vitae

### Stephanie Marciniak

Department of Anthropology  
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### Education

- 2011-2016 Ph.D. in Anthropology, McMaster University, Hamilton  
Thesis title: *Scourge of the Empire? Ancient Pathogen Genomics and the Biosocial Context of Malaria in Imperial-Era Southern Italy (1st-4th c. A.D.)*  
Supervisors: Dr. Hendrik N. Poinar, Dr. Tracy L. Prowse
- 2006-2008 M.A. in Anthropology, Trent University, Peterborough  
Thesis Title: *Postmortem Dismemberment and Fire Exposure: The Identification of Saw Mark Characteristics on Burned Bone*  
Supervisor: Dr. Anne Keenleyside
- 2002-2006 H.BSc. Degree in Forensic Science and Anthropology  
University of Toronto, Mississauga

### Academic Positions

- 2016-Present Postdoctoral Scholar, Department of Anthropology, The Pennsylvania State University

### Areas of Interest

Infectious disease, ancient DNA, human-pathogen co-evolution, paleopathology, biosocial context of health, human evolution, ancient Roman medical literature, forensic anthropology, physiological stress.

### Publications

#### Peer-Reviewed

**Marciniak, S.**, Herring, D.A., Sperduti, A., Poinar, H.N., Prowse, T.L. (2018). A multi-faceted anthropological and genomic approach to framing *Plasmodium falciparum* malaria in Imperial period central-southern Italy (1st-4th c. C.E.). *Journal of Anthropological Archaeology*, 49, 210-224.

**Marciniak, S.**, Perry, G.H. (2017). Harnessing ancient genomes to study the history of human adaptation. *Nature Reviews Genetics*, 18, 659–674.

Duggan, A.T., Harris, A.J.T., **Marciniak, S.**, Marshall, I., Kuch, M., Kitchen, A., Renaud, G., Southon, J., Fuller, B., Young, J., Fiedel, S., Golding, G.B., Grimes, V., Poinar, H.N.

- (2017). Genetic discontinuity between the Maritime Archaic and Beothuk populations in Newfoundland, Canada. *Current Biology*, 27, 3149-3156.
- Marciniak, S.**, Prowse, T.L., Herring, D.A., Klunk, J., Kuch, M., Duggan, A.T., Bondioli, L., Holmes, E.C., Poinar, H.N. (2016). *Plasmodium falciparum* malaria in 1<sup>st</sup>-2<sup>nd</sup> century CE, southern Italy. *Current Biology*, 26, R1220-R1222.
- Duggan, A. T., Perdomo, M. F., Piombino-Mascalì, D., **Marciniak, S.**, Poinar, D., Emery, M. V., ... & Poinar, H.N. (2016). 17<sup>th</sup> century Variola virus reveals the recent history of smallpox. *Current Biology*, 26, 3407-3412.
- Marciniak, S.**, Klunk, J., Devault, A., Enk, J., Poinar, H. (2015). Ancient genomics: reconstructing human evolutionary pathways. *Journal of Human Evolution*. 79, 21-34.
- Marciniak, S.** (2014). Counterfeit antimalarials and the commodification of health. *Nexus: The Canadian Student Journal of Anthropology*, 22(1): 5-18.
- Marciniak, S.** (2009). A preliminary assessment of the identification of saw marks on burned bone. *Journal of Forensic Sciences*, 54, 779-785.

#### Book chapters

- Marciniak, S.**, Poinar, H.N. (2019). Ancient Pathogens Through Human History: A Paleogenomic Perspective. In: Lindqvist, C., Rajora, O.P., (Eds). *Paleogenomics: Genome Scale Analysis of Ancient DNA*. Springer: Switzerland. pp. 115-138.
- Marciniak, S.** (2016). Hunting for pathogens: ancient DNA and the historical record. In: Mant, M., Holland, A. (Eds). *Beyond the Bones: Engaging with Disparate Datasets*. pp. 81-100. Elsevier.

#### **Research Funding**

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|-----------|---|
| 2019-2020 | Wenner-Gren Post-PhD Research Grant (\$17,000)                            |
| 2014-2016 | Social Sciences and Humanities Research Council Doctoral Award (\$40,000) |
| 2013-2014 | Ontario Graduate Scholarship (\$15,000)                                   |

#### **Teaching Experience**

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|-----------------------|---|
| 2011 – 2015           | Graduate Teaching Assistant, Department of Anthropology, McMaster University <ul style="list-style-type: none"> <li>▪ Anthropology 1AA3 – Sex, Food and Death</li> <li>▪ Anthropology 1ZO3 – The Human Species: Becoming and Being Human</li> <li>▪ Anthropology 2EO3 – Human Variation and Evolutionary Change</li> <li>▪ Anthropology 3FA3 – Forensic Anthropology</li> <li>▪ Sociology 1A06 – Introduction to Sociology</li> </ul> |
| Sept. 2006-April 2008 | Graduate Teaching Assistant, Department of Anthropology, Trent University <ul style="list-style-type: none"> <li>▪ ANTH 240 – Introduction to Biological Anthropology</li> <li>▪ ANTH 341 – Human Osteology and Forensic Anthropology</li> </ul>  |

## Contributed Conference Presentations

- June 2019 **Marciniak, S.**, Bergey, C.M., Silva, A.M., Hałuszko, A., Furmanek, M., Veselka, B., Veleminsky, P., Vercellotti, G., Wahl, J., Kiss, K., Hajdu, T., von Cramon-Taubadel, N., Pinhasi, R., Perry, G. Plasticity and constraints on human stature: A 9,000 year perspective from ancient DNA and skeletal data. Poster presentation. Evolution. (Providence, RI).
- March 2019 **Marciniak, S.**, Bergey, C.M., Silva, A.M., Hałuszko, A., Furmanek, M., Veselka, B., Veleminsky, P., Vercellotti, G., Wahl, J., Kiss, K., Hajdu, T., von Cramon-Taubadel, N., Pinhasi, R., Perry, G. Investigating human stature variation in prehistory with per-individual ancient DNA and osteological data. Podium presentation. American Association of Physical Anthropologists (Cleveland, OH).
- April 2018 **Marciniak, S.**, Poinar, H.N., Prowse, T.L. Malaria in the rural hinterland of southern Italy: A multi-faceted anthropological and genomic perspective from Vagnari (1st-4th c. CE). *Symposium: Malaria in the Past: Current research into one of humanity's oldest plagues*. Binder, M., Gamble M., **Marciniak S.**, Prowse T.L., co-organizers. American Association of Physical Anthropologists (Austin, TX).
- October 2017 **Marciniak, S.** Underrepresented pathogens in the archaeological record: integrating ancient DNA techniques within a multi-faceted framework. Invited podium presentation. Canadian Association for Physical Anthropology (Edmonton, AB).
- April 2017 **Marciniak, S.**, Prowse, T.L., Herring, D.A., Klunk, J., Kuch, M., Duggan, A.T., Bondioli, L., Holmes, E.C., Poinar, H.N. Molecular evidence for Plasmodium falciparum malaria in 1st-4th c. A.D. southern Italy. Podium presentation. American Association of Physical Anthropologists (New Orleans, LA).
- October 2016 **Marciniak, S.** Imprints of ancient pathogens: bridging the historical and molecular narratives. Invited podium presentation. Canadian Association for Physical Anthropology (Peterborough, ON).
- May 2016 Duggan, A.T., Eaton, K., Klunk, J., **Marciniak, S.**, Poinar, H.N. Ancient DNA as an instrument to uncover disease-scape in antiquity. Podium presentation. Medieval Landscapes of Disease (Kalamazoo, MI).
- April 2016 **Marciniak, S.**, Duggan, A.T., Kuch, M., Allen, J., Jaing, C., Gardner, S., McLoughlin, K., Borucki, M., Poinar, H.N. Ancient pathogen genomics: a strategy for the parallel detection of multiple pathogens in archaeological samples. Podium presentation. American Association of Physical Anthropologists (Atlanta, GA).

- October 2015 Harris, A., Duggan, A. T., **Marciniak, S.**, Marshall, I., Poinar, H., Grimes, V. Dating the human occupation of Newfoundland and Labrador: challenges and progress. Podium presentation. Canadian Association for Physical Anthropology (Winnipeg, MB).
- October 2015 **Marciniak, S.**, Duggan, A.T., Prowse, T.L., Poinar, H.N. It's not the needle, it's the whole haystack! Comparing pathogen DNA detection strategies in archaeological samples. Podium presentation. Canadian Association for Physical Anthropology (Winnipeg, MB).
- October 2015 **Marciniak, S.**, Duggan, A.T., Poinar, H.N. It's not the needle, it's the whole haystack! The parallelization of pathogen DNA capture in archaeological samples. Podium presentation. Michael G. DeGroot Institute for Infectious Disease Research (IIDR) Trainee Day (Hamilton, ON).
- March 2015 **Marciniak, S.**, Prowse, T.L., Poinar, H.N. Hunting for pathogens: ancient DNA and the historical record. Invited poster symposium, Beyond the Bones: Engaging with Disparate Datasets. American Association of Physical Anthropologists (St. Louis, MO).
- April 2013 **Marciniak, S.** Reconstructing the Disease Identity of Malaria in Ancient Rome. Podium presentation. Paleopathology Association (Knoxville, TN).
- November 2012 **Marciniak, S.** Cholera in Haiti: International Humanitarian Intervention and the Right to Health. Podium presentation. Canadian Association for Physical Anthropology (Victoria, BC).
- October 2011 **Marciniak, S.** A Preliminary Assessment of the Identification of Saw Marks on Burned Bone. Poster presentation. Canadian Association for Physical Anthropology (Montreal, QC).
- September 2010 **Marciniak, S.** Postmortem Dismemberment and Fire Exposure: The Identification of Saw Mark Characteristics on Burned Bone. Poster presentation. Canadian Identification Society Annual Education Conference (Orillia, ON).
- April 2008 **Marciniak, S.** Postmortem Dismemberment and Fire Exposure: The Identification of Saw Mark Characteristics on Burned Bone. Podium presentation. American Association of Physical Anthropologists (Columbus, OH).
- October 2006 **Marciniak, S.** A Test of Osteometric Sorting of Commingled Human Remains. Podium presentation. Canadian Association for Physical Anthropology (Peterborough, ON).
- November 2005 **Marciniak, S.** The Determination of the Sex and Ancestry of Cremated Remains: Assessment of the Effects of Heat-Induced

Shrinkage. *Podium presentation*. Canadian Association for Physical Anthropology (Winnipeg, MB).

### **Invited Lectures/Seminars/Workshops**

- September 2018 **Using new technologies to study the relationship between pathogens and ancient migrations**, “Diaspora, Migration and the Sciences” (Lorentz Center, Leiden)
- March 2016 **The Race Concept in Anthropology**, ANTH 1AB3 Introduction to Anthropology: Race, Religion and Conflict (McMaster University, Hamilton)
- February 2015 **Pharmacogenomics**, ANTH 4GS3 Genetics and Society (McMaster University, Hamilton)
- November 2013 **The Race Concept in Anthropology**, ANTH 2EO3 Human Variation and Evolutionary Change (McMaster University, Hamilton)
- April 2013 **Introduction to Forensic Anthropology**, Integrated Science Symposium, Workshop on Forensic Science
- April 2012 **Post-mortem Taphonomy and Trauma**, ANTH 3FA3 Forensic Anthropology (McMaster University, Hamilton)
- April 2008 **Post-mortem Trauma**, ANTH 341 Human Osteology and Forensic Anthropology (Trent University, Peterborough)
- February 2008 **Post-mortem Trauma**, FRSC 310 Trends in Forensic Science (Trent University, Peterborough)
- April 2007 **Bone as a Living Tissue**, ANTH 240 Biological Anthropology (Trent University, Peterborough)

### **Radio and television appearances**

- Media coverage related to the use of my Masters thesis images in CSI: Miami (Season 8, Episode 7 “Bone Voyage” aired November 9, 2009).
  - Daily Planet News show - November 25, 2009
  - Interview on Radio Canada International – The Link Program – November 17, 2009
  - Interview on CBC Radio One – Metro Morning Program – November 9, 2009
  - Interview for the Peterborough Examiner, and CBC Radio One Ontario Morning Program with Wei Chen – October 30, 2009

### **Professional Associations**

Society for the Study of Evolution (SSE)  
Canadian Association for Physical Anthropology (CAPA)  
American Association of Physical Anthropologists (AAPA)  
Paleopathology Association (PPA)  
Association for Anthropological Genetics (AAG)