

BIOGRAPHICAL SKETCH

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NAME Zaneta M. Thayer	POSITION TITLE Assistant Professor, Department of Anthropology, University of Colorado Denver
eRA COMMONS USER NAME (credential, e.g., agency login)	

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Dartmouth College, Hanover, NH	AB	2008	Anthropology
Dartmouth College, Hanover, NH	AB	2008	Biology
Northwestern University, Evanston, IL	MA	2010	Biological Anthropology
Northwestern University, Evanston, IL	PhD	2013	Biological Anthropology

A. Personal Statement

I am the principal investigator on the proposed project. My research addresses how early environmental experience influences biology and health in later life, with a particular focus on understanding these relationships within socially disadvantaged populations. For my dissertation research I recruited an ethnically and socioeconomically diverse sample of pregnant women in Auckland, New Zealand to explore how maternal stress experience influenced maternal and offspring stress physiology during the early postnatal period. In the proposed analysis I will build on my previous experience by exploring how biomarkers of health measured in adulthood relate to stress experience in early life. This analysis will be conducted utilizing a very unique dataset collected from a sample of American Indian adults. As an American Indian (Lakota) working with a team of Native investigators/researchers who have previously worked in Native health, our team is uniquely suited to conduct this analysis.

My prior research experience has positioned me well to successfully complete this project. Particularly relevant for the proposed project is my prior experience in grant writing, data analysis and manuscript preparation. In these projects I successfully collaborated with researchers from different disciplines and institutions, which the present investigation will also require.

In summary, my research team and I have the expertise, cultural knowledge, and skills necessary to complete this project. Importantly, this project will also serve to enhance my ultimate research goals of understanding how stress experience across the life course impacts minority health in the US.

B. Positions and Honors

Position

2014-present Assistant Professor, Department of Anthropology, University of Colorado Denver

Professional Memberships

2013 - Present American Anthropological Association
2011 - Present Society for the Advancement of Chicanos and Native Americans in Science
2009 - Present Developmental Origins of Health and Disease (DOHaD)
2008 - Present American Association of Physical Anthropologists
2008 - Present Human Biology Association

Honors

2013 E.E. Hunt Jr. Student prize for best paper at Human Biology Association meetings
2012 - 2013 Northwestern University Presidential Fellowship
2009 - 2012 NSF Graduate Research Fellowship Awardee
2008 - 2009 Northwestern University Darwin Fellow
2008 Northwestern University Graduate Fellowship

C. Peer-reviewed Publications

Most Relevant to the Present Application

Thayer Z, Kuzawa C. Intergenerational effects of maternal experience: Influence of SES on maternal and offspring stress physiology in New Zealand. *American Journal of Human Biology* In press

Thayer Z. The vitamin D hypothesis revisited: Differences in UV exposure do not explain disparities in birth outcomes within the United States *American Journal of Epidemiology* 2014;179(8):947-955.

Kuzawa C, **Thayer Z**. Toppling typologies: Developmental plasticity and the environmental origins of human biological variation. *Rethinking Race and Science: Biology, Genes and Culture* School of Advanced Research Press 2012;43-56.

Thayer Z, Kuzawa C. The biology of embodiment: epigenetic pathways to health disparities *Epigenetics* 2011; 6(7):798-803.

Kuzawa C, **Thayer Z**. The Timescales of Human Adaptation: the Role of Epigenetic Processes and Policy Implications. *Epigenomics* 2011;3(2):221-234.

Other Publications (in chronological order)

Thayer Z, Dobson S. Geographic Variation in Chin Shape Challenges the Universal Facial Attractiveness Hypothesis. *PloS one* 2013;8(4):e60681.

Thayer Z, Ferranil A, Kuzawa C. Maternal cortisol disproportionately impacts fetal growth in male offspring: Evidence from the Philippines. *American Journal of Human Biology* 2012;24:1-4.

Thayer Z, Dobson S. Sexual Dimorphism in Chin Shape: Implications for Adaptive Hypotheses. *American Journal of Physical Anthropology* 2010;143(4):417-425.

D. Research Support

Current Research Support

P20 MD006871 (Roll, Buchwald) 08/01/12-02/28/17
NIMHD \$4,564,914

Behavioral Health Collaborative for Rural American Indian Communities

This project consists of 3 research projects and 4 cores focusing on health in rural American Indian communities. The partnership is a vehicle to enhance capacity at Washington State University to work on American Indian health issues and to support ongoing efforts to understand and eliminate health disparities among traditionally underserved populations, with a focus on rural populations at Washington State University and American Indian populations at University of Washington.

DDIG 1260659 (Kuzawa, Thayer) 01/01/13 - 07/31/14
National Science Foundation \$12,524

Doctoral Dissertation Improvement: Intergenerational effects of maternal stress in pregnancy: Epigenetic Mechanisms

The purpose of this grant was to evaluate changes in methylation, a type of epigenetic modification, among infants from a socioeconomically and ethnically diverse sample from Auckland, New Zealand.

Completed Research Support

Doctoral Improvement Gr. 8834 (Thayer, Kuzawa) 09/01/2011-04/01/13
Wenner Gren Foundation \$24,985

Intergenerational Programming of Stress Reactivity: Role of Epigenetic Mechanisms

This project involves the recruitment of a socioeconomically and ethnically diverse sample of pregnant women and their children from Auckland, New Zealand. The primary aim is to evaluate whether maternal stress experience affects maternal and offspring biology, with a particular focus on trying to understand how social inequalities create health inequalities.

East Asia Pacific Summer Institutes Program 1015228 (Thayer) 06/01/2010 – 05/31/2011

National Science Foundation

\$5617

Offspring Methylation Patterns in Relation to Maternal Stress in a Non-Western Population

Through this summer research training program I worked in an epigenetics laboratory to learn how to conduct methylation analysis, including designing primers for amplification and statistical analysis of methylation data. I performed DNA extraction, sodium bisulfite conversion and methylation analysis using the Sequenom EpiTyper platform. This pilot work set the stage for my ultimate dissertation project