



# ELSI FRIDAY FORUM

## ELSI Friday Forum

**Friday, May 9, 2025 12-1:30 PM ET US/9-10:30 AM PT**

### Session Title:

*The ELSI of Social Epigenetics*

**Date and time:** Friday, May 9, 2025 | 12pm ET US / 9am PT US

**Moderator:** Martine Lappé, PhD

**Presenter:** Michael S. Kobor, PhD

**Presenter:** Erika A. Waters, PhD, MPH

**CERA Coordinator:** Esohe Irabor, PhD

**Staff:** [David Lamb](#), [Faryn Fairweather](#), [Grace Morris](#)

### [BIOGRAPHIES]

#### **MODERATOR: Martine Lappé, PhD**

**Dr. Lappé** is an Associate Professor of Sociology and Science, Technology, and Society, in the Department of Social Sciences at the California Polytechnic State University, San Luis Obispo. She is also a Fellow in the Center on the Developing Child at Harvard University. Dr. Lappé is a feminist sociologist of science, health, and medicine and a previous postdoctoral fellow at Columbia's Center for Excellence in ELSI Research. Her research focuses on the social and ethical dimensions of the contemporary life sciences, and their intersections with lived experiences of pregnancy and parenting.

From 2016-2022, Dr. Lappé was Principal Investigator of the K99/R00 grant titled "Behavioral Epigenetics in Children: Exploring the Social and Ethical Implications of Translation," awarded by NHGRI's Ethical, Legal, and Social Implications Program. She has published widely on the social and ethical dimensions of social epigenetics.

Link to Martine's biography: <https://socialsciences.calpoly.edu/martine-lappe-2>

#### **PANELIST: Michael S. Kobor**

Dr. Michael Kobor is a Professor in the Department of Medical Genetics at the University of British Columbia (UBC) and The Edwin S.H. Leong UBC Chair in Healthy Aging — a UBC



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President's Excellence Chair. He has received many distinctions, including a Tier 1 Canada Research Chair in Social Epigenetics and an appointment as Fellow of the Canadian Institute for Advanced Research (CIFAR) Child and Brain Development Program. Until recently, Dr. Kobor served as the Sunny Hill BC Leadership Chair in Early Child Development, as well as the Director for Healthy Starts at BC Children's Hospital Research Institute. Dr. Kobor's world-class, interdisciplinary research program employs a "society-to-cell" framework to better understand the mechanisms by which environmental exposures and life experiences can "get under the skin" to affect health and behaviour across the life course.

Link to Michael's biography: <https://medgen.med.ubc.ca/michael-steffen-kobor/>

## **PANELIST: Erika A. Waters, PhD, MPH**

Dr. Erika Waters obtained a PhD in social psychology with a concentration in health from Rutgers University. As a part of my postdoctoral training at the National Cancer Institute, she obtained a Master of Public Health from Johns Hopkins School of Public Health. She began working at Washington University in St. Louis in 2009, and has been continually funded by the National Institutes of Health since 2011. Her research program seeks to understand how people think about health issues and how those thoughts influence their health-related decisions and behavior. Her scholarship informs health communication and behavior interventions that aim to improve health and reduce health disparities.

Link to Erika's biography: <https://publichealth.wustl.edu/people/erika-a-waters/>

**[SLIDES]**

**Erika A. Waters**

**[SLIDE 9]**

Link to "Will your Lifestyle Hurt your Grandchildren?":

<https://abcnews.go.com/Technology/lifestyle-hurt-grandchildren/story?id=25812009>

Link to "Sperm passes dad's trauma and poor diet to his kids: Study reveals how a father's experience plays a key role in the way their child's cells develop":

<https://www.dailymail.co.uk/health/article-6287201/Sperm-passes-dads-trauma-poor-diet-kids.html>

Link to "Poverty linked to epigenetic changes and mental illness":

<https://www.nature.com/articles/nature.2016.19972>

Link to "Pregnant women who eat fast food every day are putting 'THREE generations at risk of obesity, heart disease and diabetes":

<https://www.dailymail.co.uk/health/article-3653076/Pregnant-women-fast-food-everyday-putting>



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[-THREE-generations-risk-obesity-heart-disease-diabetes.html#:~:text=Pregnant%20women%20who%20eat%20fast,obesity%2C%20heart%20disease%20and%20diabetes'](#)

Link to “Pregnant 9/11 survivors transmitted trauma to their children”:

<https://www.theguardian.com/science/neurophilosophy/2011/sep/09/pregnant-911-survivors-transmitted-trauma#:~:text=Among%20the%20tens%20of%20thousands,mothers%20experienced%20on%20that%20day>

**Michael S. Kobor, PhD**

## [SLIDE 7]

Link to “Society to cell: How child poverty gets “Under the Skin” to influence child development and lifelong health”: <https://www.sciencedirect.com/science/article/pii/S0273229721000381>

## [SLIDE 8]

Link to “Low early-life social class leaves a biological residue manifested by decreased glucocorticoid and increased proinflammatory signaling”:

<https://pubmed.ncbi.nlm.nih.gov/19617551/>

Link to “Differential DNA methylation in peripheral blood mononuclear cells in adolescents exposed to significant early but not later childhood adversity”:

<https://pmc.ncbi.nlm.nih.gov/articles/PMC5903568/>

Link to “Exposure to childhood abuse is associated with human sperm DNA methylation”:

<https://www.nature.com/articles/s41398-018-0252-1>

Link to “Social and physical environments early in development predict DNA methylation of inflammatory genes in young adulthood”: <https://pubmed.ncbi.nlm.nih.gov/28673994/>

Link to “The Biological Embedding of Early-Life Socioeconomic Status and Family Adversity in Children’s Genome-Wide DNA Methylation”:

<https://www.tandfonline.com/doi/full/10.2217/epi-2018-0042>

Link to “Epigenetics studies of fetal alcohol spectrum disorder: where are we now?”:

<https://pubmed.ncbi.nlm.nih.gov/28234026/>

## [SLIDE 9]

Link to “Epigenetic Vestiges of Early Developmental Adversity: Childhood Stress Exposure and DNA Methylation in Adolescence”: <https://pmc.ncbi.nlm.nih.gov/articles/PMC3235257/>



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Link to “Epigenetic correlates of neonatal contact in humans”:

<https://pubmed.ncbi.nlm.nih.gov/29162165/>

Link to “Cuddling babies, or not, affects infants' gene expression, B.C. study finds”:

<https://vancouver.sun.com/news/local-news/cuddling-babies-or-not-affects-infants-gene-expression-b-c-study-finds>

## [SLIDE 13]

Link to “Early-life socioeconomic disadvantage, not current, predicts accelerated epigenetic aging of monocytes”:

<https://pubmed.ncbi.nlm.nih.gov/30016711/#:~:text=aging%20of%20monocytes-,Early%2Dlife%20socioeconomic%20disadvantage%2C%20not%20current%2C%20predicts%20accelerated%20epigenetic,Psychoneuroendocrinology>

Link to “Sex differences in epigenetic age in Mediterranean high longevity regions”:

<https://pubmed.ncbi.nlm.nih.gov/36506464/>

Link to “Epigenetic age is associated with baseline and 3-year change in frailty in the Canadian Longitudinal Study on Aging”: <https://pubmed.ncbi.nlm.nih.gov/34425884/>

Link to “Reversal of epigenetic aging and immunosenescent trends in humans”:

<https://pmc.ncbi.nlm.nih.gov/articles/PMC6826138/>

Link to “Effect of long-term caloric restriction on DNA methylation measures of biological aging in healthy adults from the CALERIE trial”: <https://www.nature.com/articles/s43587-022-00357-y>

## [SLIDE 14]

Link to “How Bryan Johnson, Who Wants to Live Forever, Sought Control via Confidentiality Agreements”:

<https://www.nytimes.com/2025/03/21/technology/bryan-johnson-blueprint-confidentiality-agreements.html>

## [SLIDE 15]

Link to “Open Mind, Open Genes: Exercising Your Epigenetic Power with Yoga”:

[https://www.whatisepigenetics.com/open-mind-open-genes-exercising-your-epigenetic-power-with-yoga/#google\\_vignette](https://www.whatisepigenetics.com/open-mind-open-genes-exercising-your-epigenetic-power-with-yoga/#google_vignette)

[FROM CERA]



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We invite you to browse ELSIhub Collections. ELSIhub Collections are essential reading lists on fundamental or emerging topics in ELSI, curated and explained by expert Collection Editors, often paired with ELSI trainees: <https://elsihub.org/resources/collections>

This session's featured ELSIhub Collection:

Please use the link to access "Technologies to Operationalize Indigenous Data Sovereignty" curated by Māui Hudson, BHSc, AIT, MHSc, AUT (University of Waikato) and Stephanie Carroll, DrPH, MPH (University of Arizona).

<https://doi.org/10.25936/7sej-bj09>

Upcoming events that you can now register for:

Our next ELSI Journal Club will be on May 30th at 12pm ET. Link to register:

<https://us06web.zoom.us/meeting/register/JeitdxXSRsyjM5v3dxWyQ>

Link to register for June's EFF Session, Rigor, Reproducibility and Responsibility: ELSI Questions in Population Data Practices:

<https://us06web.zoom.us/meeting/register/JXFdHHhATX2sZfAq6d9YKQ>

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