

Stanford



Elizabeth Costello

Basic Life Res Scientist, Medicine - Med/Infectious Diseases

SUPERVISORS

- David Relman

Bio

HONORS AND AWARDS

- Walter V. and Idun Berry Postdoctoral Fellowship, Stanford University (2009-2013)
- K99 Pathway to Independence Award, NIH/NICHHD (2013-2016)

EDUCATION AND CERTIFICATIONS

- Postdoc, Stanford University (2013)
- Postdoc, University of Colorado Boulder (2009)
- PhD, University of Colorado Boulder (2007)
- BS, Cornell University (1999)

LINKS

- Relman Lab: <http://sites.google.com/site/davidrelmanlab/>

Publications

PUBLICATIONS

- **Characterizing the oral and distal gut microbiota of the threatened southern sea otter (*Enhydra lutris nereis*) to enhance conservation practice.** *Conservation science and practice*
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- **The human gut microbiome and health inequities.** *Proceedings of the National Academy of Sciences of the United States of America*
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- **Microbiota assembly, structure, and dynamics among Tsimane horticulturalists of the Bolivian Amazon.** *Nature communications*
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- **Complete Genome Sequences of Six *Lactobacillus iners* Strains Isolated from the Human Vagina.** *Microbiology resource announcements*
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- **Replication and refinement of a vaginal microbial signature of preterm birth in two racially distinct cohorts of US women.** *Proceedings of the National Academy of Sciences of the United States of America*
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2017
- **Candidatus Mycoplasma girerdii replicates, diversifies, and co-occurs with Trichomonas vaginalis in the oral cavity of a premature infant.** *Scientific reports*
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2017; 7 (1): 3764
- **Marine mammals harbor unique microbiotas shaped by and yet distinct from the sea.** *Nature communications*
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2016; 7: 10516-?
- **Temporal and spatial variation of the human microbiota during pregnancy.** *Proceedings of the National Academy of Sciences of the United States of America*
DiGiulio, D. B., Callahan, B. J., McMurdie, P. J., Costello, E. K., Lyell, D. J., Robaczewska, A., Sun, C. L., Goltsman, D. S., Wong, R. J., Shaw, G., Stevenson, D. K., Holmes, S. P., Relman, et al
2015
- **Population health: immaturity in the gut microbial community.** *Nature*
Costello, E. K., Relman, D. A.
2014; 510 (7505): 344-345
- **Genetically dictated change in host mucus carbohydrate landscape exerts a diet-dependent effect on the gut microbiota** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Kashyap, P. C., Marcobal, A., Ursell, L. K., Smits, S. A., Sonnenburg, E. D., Costello, E. K., Higginbottom, S. K., Domino, S. E., Holmes, S. P., Relman, D. A., Knight, R., Gordon, J. I., Sonnenburg, et al
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- **Biphasic assembly of the murine intestinal microbiota during early development.** *ISME journal*
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- **Distinct Distal Gut Microbiome Diversity and Composition in Healthy Children from Bangladesh and the United States** *PLOS ONE*
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2013; 4 (6): e00782-13
- **Cohabiting family members share microbiota with one another and with their dogs.** *eLife*
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- **The Application of Ecological Theory Toward an Understanding of the Human Microbiome** *SCIENCE*
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- **Sources of Bacteria in Outdoor Air across Cities in the Midwestern United States** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
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- **Minimum information about a marker gene sequence (MIMARKS) and minimum information about any (x) sequence (MIxS) specifications** *NATURE BIOTECHNOLOGY*
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2011; 29 (5): 415-420
- **Supervised classification of human microbiota** *FEMS MICROBIOLOGY REVIEWS*
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- **Strain-resolved community genomic analysis of gut microbial colonization in a premature infant** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
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- **Moving pictures of the human microbiome** *GENOME BIOLOGY*
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- **Soil CO₂ flux and photoautotrophic community composition in high-elevation, 'barren' soil** *ENVIRONMENTAL MICROBIOLOGY*
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- **Fumarole-Supported Islands of Biodiversity within a Hyperarid, High-Elevation Landscape on Socompa Volcano, Puna de Atacama, Andes** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
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- **Environmental DNA sequencing primers for eutardigrades and bdelloid rotifers.** *BMC ecology*
Robeson, M. S., Costello, E. K., Freeman, K. R., Whiting, J., Adams, B., Martin, A. P., Schmidt, S. K.
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- **The earliest stages of ecosystem succession in high-elevation (5000 metres above sea level), recently deglaciated soils** *PROCEEDINGS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES*
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- **Microbial diversity in alpine tundra wet meadow soil: novel Chloroflexi from a cold, water-saturated environment** *ENVIRONMENTAL MICROBIOLOGY*
Costello, E. K., Schmidt, S. K.
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- **Structure and function of alpine and arctic soil microbial communities** *RESEARCH IN MICROBIOLOGY*
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- **The rate and pattern of cladogenesis in microbes** *EVOLUTION*
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