# Life course perspectives on aging: an animal model perspective 

Jenny Tung

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Noah Snyder-Mackler
Arizona State University, School of Evolution and Social Change

Angie O'Rand
Duke University
Sociology/DUPRI



Robbie Burger
University of Arizona
Ecology \& Evolutionary Biology


Lauren Gaydosh Vanderbilt University Medicine, Health, and Society


Dan Belsky
Columbia University
Epidemiology


Grace Noppert
UNC-Chapel Hill Carolina Population Center


Alessandro Bartolomucci
University of Minnesota Integrative Biology \& Physiology


Carol Shively
Wake Forest University Pathology and Comparative


Yang Claire Yang UNC-Chapel Hill Sociology/CPC


Susan Alberts
Duke University
Biology/Evolutionary Anthropology


Kathie Mullan Harris UNC-Chapel Hill Sociology/CPC


Allison Aiello
UNC-Chapel Hill
Epidemiology


Beth Archie
socioeconomic status



Social network index



Bock hyrax

pre-rearrangement post-rearrangement social groups
high rank


## early social status

## maternal loss





Matthew Zipple


These effects are independent of the offspring's own environment, and likely explained by reduced maternal viability

Mother experienced maternal loss


Offspring whose mothers experienced early life adversity


Zipple et al 2019, eLife




1,079 cases of past $x$ current rank interaction $88 \%$ biased toward greater "memory" with low past rank

Social status is causally implicated in altered immune function, including the immune response to bacteria and viruses

Even when social status changes, a genomic signature of social history remains

## Thanks!

BABOONS:
Susan Alberts (Duke) Jeanne Altmann (Princeton) Beth Archie (Notre Dame)

## MACAQUES:

Luis Barreiro (U Chicago) Mark Wilson (Emory)
Vasiliki Michopoulos (Emory) Joaquin Sanz Remon (now Zaragosa)
Paul Maurizio
Joao Batista
Anne Dumaine
Jordan Kohn
Zach Johnson
J.C. Grenier

Yerkes NPRC staff

The Social/Biological Determinants of Health Working Group


TUNG LAB:
Noah Snyder-
Mackler (now ASU)
Amanda Lea (now
Princeton)
Tauras Vilgalys
(now Chicago)
Arielle Fogel
Rachel Johnston
Noah Simons
Dana Lin Jordan Anderson

Ryan Campbell Shuyu He
Shauna Morrow
Amanda Shaver
Mike Yuan
Tawni Voyles
BJ Nielsen
Tina Del Carpio
Matt Kim
Kelly Wiliams
Reena Debray

National Institute on Aging ■ * $\boldsymbol{*}$ 事


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