

Postdoctoral position on social and environmental drivers of stress using real-time data on heart rate in wild baboons

How do individuals respond to stressors in real time? Which stressors are most important? How does life experience shape stress responses? A 3-year, NIH-funded postdoctoral position is available to study how lived experiences shape stress responses and energy use in wild baboons. The postdoc will join Elizabeth Archie's research group at the University of Notre Dame (<http://sites.nd.edu/archielab/>). The project uses biologgers that record individual heart rate, physical activity, and body temperature on minute-to-minute scales. Using these data, we will work to understand how social and environmental conditions in early life and adulthood interact to shape acute autonomic stress, chronic stress, and energy expenditure. The baboons with the biologgers are studied by the Amboseli Baboon Research Project (ABRP: <http://amboselibaboons.nd.edu/>) in southern Kenya. This project has been running continuously since 1971, providing prospective, longitudinal data on all the major events and conditions of the baboons' lives.

Specific projects will include: (i) testing how experiences of adversity across the life course—including early life and current, real-time conditions—affect acute and chronic stress responses; (ii) testing how stress responses change with individual social status, physical condition, and age; and (iii) comparing heart rate, activity, and social stressors between wild and captive baboons. The Amboseli baboons are a model for understanding social and environmental predictors of health, microbiome composition, aging, and fitness. ABRP data are exceptionally rich and amenable to a wide range of projects, and strong, experienced applicants will be encouraged to also develop their own research questions.

Candidates must have a PhD in biology, ecology, evolution, evolutionary anthropology or a relevant social science (or plan to graduate in 2024 or 2025). The ideal candidate will have outstanding skills in coding, data analysis, writing, and oral communication. Candidates with experience in one or more of the following areas are especially encouraged to apply: longitudinal data analysis, stress physiology, field observations of social vertebrates, environmental drivers of physiological responses, behavioral ecology, and population-based database analysis. Familiarity or experience with primates (including humans) may be helpful, but is not required.

The Archie lab offers a congenial research environment that fosters strong interdisciplinary training and collaborative exchange. Specific collaborators on this project include Herman Pontzer (<https://scholars.duke.edu/person/Herman.Pontzer>), Susan Alberts (<https://sites.duke.edu/albertslab/>), and Mercy Akinyi (<https://akinyimercy.co.ke/>).

To apply, please send an email to Elizabeth Archie (earchie@nd.edu), including a cover letter, CV, and contact information for three references. The anticipated start date is in winter or spring 2025, but this timing is flexible for strong candidates. Applications are rolling and applicants are encouraged to submit their materials by November 15, 2024 for full consideration.