

**44TH ANNUAL MEETING
HUMAN BIOLOGY ASSOCIATION
PROGRAM SUMMARY
Cleveland, OH**

TUESDAY, MARCH 26, 2019

- 4:00 p.m. to 6:00 p.m. **HBA INTRNATIONAL REPRESENTATIVES MEETEING**
Room: Hilton Center Street A
- 6:00 p.m. to 10:00 p.m. **EXECUTIVE COMMITTEE MEETING**
Room: Hilton Center Street A

WEDNESDAY, MARCH 27, 2019

- 7:30 a.m.–9:00 a.m. **AJHB EDITORIAL BOARD MEETING AND BREAKFAST**
Room: Hilton Center Street C
- 8:00 a.m.–5:00 p.m. **REGISTRATION**
Hilton Veterans Foyer
- 8:00 a.m.–11:00 a.m.
(Set up at 7:00am) **POSTER SESSION**
Chair: Amanda Thompson
Room: Conference Center, Ballroom AB
- 11:30 a.m.–12:45 p.m. **LUNCH BREAK**
- 11:30 a.m. to 12:30 p.m. **BREAKOUT SESSION 1**
Challenges, opportunities and rewards of anthropological research in Latin America: shared wisdom by insiders, outsiders and everyone in-between
Alejandra Núñez-de la Mora, Organizer
Room: Hilton, Veterans B
- 11:30 a.m. to 12:30 p.m. **BREAKOUT SESSION 2**
Disentangling Power Dynamics: Participatory Action Research Methods & Ethical Considerations
Mandy Guitar and Kyle Gowen, Organizers
Room: Hilton, Veterans C
- 1:00 p.m.–1:15 p.m. **OPENING WELCOME**
Alexandra Brewis Slade, President of the Human Biology Association
- INTRODUCTION TO PLENARY SESSION**
Asher Rosinger and Alexandra Brewis Slade, Organizers
Room: Hilton, Superior A

- 1:15–4:45 p.m. **PLENARY SESSION**
Life and Death: Human Biology and Water
Organizers: Asher Rosinger and Alexandra Brewis Slade
Room: Hilton, Superior A
- 5:00–6:00 p.m. **PEARL MEMORIAL LECTURE**
Water Insecurity: An Agenda for Research and Call to Action
for Human Biology
A Wutich
Arizona State University
- 6:30–9:30 p.m. **HBA DINNER RECEPTION AND CASH BAR**
Room: Hilton Superior C

THURSDAY, MARCH 28, 2019

- 7:30 a.m.–8:30 a.m. **REGISTRATION**
Hilton Hope Foyer
- 8:30–10:00 a.m. **PODIUM SESSION A**
New directions in human biology: Stress and wealth in health,
development and disease
Chair: Ben Trumble
Room: Hilton Superior A
- 10:00–10:15 a.m. **COFFEE BREAK**
- 10:15–11:45 a.m. **PODIUM SESSION B**
Diet, Body Composition and Inflammation in Changing
Environments
Chair: Yosuke Inoue
Room: Hilton Superior A
- 12:00–1:15 p.m. **HBA ANNUAL AWARDS LUNCHEON**
Room: Hilton Hope AB
- 1:30–3:00 p.m. **PODIUM SESSION C**
Life history trade-offs: growth, survival and reproductive
success
Chair: Morgan Hoke
Room: Hilton Superior A
- 3:00–3:15 p.m. **COFFEE BREAK**
- 3:15–4:30 p.m. **PODIUM SESSION D**
Inequalities and health across the lifespan
Chair: Amanda Veile
Room: Hilton Superior A
- 5:00–6:30 p.m. **HBA ANNUAL BUSINESS MEETING**
Room: Hilton Superior A

7:00–9:30 p.m.

HBA STUDENT RECEPTION

Room: Hilton Hope AB

FRIDAY, MARCH 29, 2019

8:30 a.m.–11:30 a.m.

FLASH TALKS:

Innovations in Human Biology

Chair: Cara Ocobock

Room: Hilton Hope AB

**44TH ANNUAL MEETING
HUMAN BIOLOGY ASSOCIATION SCIENTIFIC PROGRAM**

WEDNESDAY, MARCH 27, 2019

8:00 a.m.–11:00 a.m.	POSTER PRESENTATIONS Chairs: Amanda Thompson <i>Conference Center, Ballroom AB</i>
7:00 a.m. –8:00 a.m.:	Poster setup
8:00 a.m.–9:30 a.m.:	Authors of odd-numbered posters present for discussion
9:15 a.m. –9:45 a.m.:	COFFEE BREAK
9:30 a.m. –11:00 a.m.:	Authors of even-numbered posters present for discussion
11:00 a.m.–4:30 p.m.:	Posters available for independent viewing
4:30 p.m. -5:00 p.m.:	Poster take-down

POSTER PRESENTATIONS

1. **Executive function performance in rural children living in poverty: A study of maternal, nutritional and psychosocial determinants in Veracruz, Mexico.** GG Reyes-Domínguez, A Solano-Miranda, V Reynoso-Alcántara, DD del Callejo-Canal, ME Canal-Martínez, P Nepomnaschy, G Amescua-Villela, S Negrete-Yankelevich, A Núñez-de la Mora
2. **Do perceptions of social status and material wealth associate with biomarkers of health in a relatively egalitarian population?** K Woolard, AR Garcia, J Stieglitz, H Kaplan, M Gurven, BC Trumble
3. **Re-envisioning migrant health: exploring risk factors and the moderating role of narratives on migrant allostatic load.** AC Tuggle, JH Cohen, DE Crews
4. **In the land of the blind, the one-eyed is queen: maternal capital and children's growth in a rural community in Veracruz, México.** AG Perroni-Marañón, R Rivera-Bonilla, G Amescua-Villela, S Negrete-Yankelevich, A Núñez-de la Mora
5. **Psychological stress, but not physiological stress, is associated with inflammation among residents of a peri-urban community in Vanuatu.** ML Duris, K Wander, AB Roome, E Standard, ME Gauck, KN Dancause, G Taleo, L Tarivonda, KM Olszowy
6. **Determinants of physiological stress in a low-income country: Differences between men and women in Vanuatu.** A Roome, K Wander, E Standard, G Taleo, L Tarivonda, KN Dancause, KM Olszowy
7. **Real lives true stories: peer interactions and stress in Mississippi middle school girls.** KP Garza, JA Walter.
8. **Going with the Flo: socioeconomic disparities in stress experiences and mediation following Hurricane Florence.** ME Howells, K Dancause, AR Kolbe, MN Puccio, RS Pond Jr.

9. **Measuring Mental and Physical Health Among Refugees in Kakuma, Kenya: The Utility of the WHO Quality of Life Instrument and Associations with Physiological Biomarkers.** RG Gengo, LT Gettler, JJ Snodgrass, G Eick, JS Meyer, RC Oka
10. **Forced migration and chronic stress: A study of traumatic experiences, mental health, and cortisol among refugees in Serbia.** J Jankovic, RC Oka, JS Meyer, LT Gettler
11. **Factors associated with perceived stress in African Americans from Cleveland: Results from a pilot study.** R Steinmuller, M Gomez, TA Wilson, S Paskert, E Zaccardelli, N Burt, KM Olszowy
12. **Perceived discrimination differentially associated with inflammation depending on self-reported race/ethnicity.** EB Quinn, JA DeCaro
13. **Racial discrimination in eastern Ecuador: varying effects on biomarkers of chronic inflammation and cell-mediated immunity.** JP Cerdeña
14. **Latrine use, boiled water, and bed nets: associations between biomarkers of immune status and public health in a subsistence population.** K Dinkel, M Costa, J Stieglitz, M Gurven, H Kaplan, BC Trumble
15. **Associations between environmental enteropathy, systemic inflammation, and growth in a rural Peruvian community.** C Super, M Hoke
16. **Exploring the relationship between water insecurity and the composition and diversity of the gut microbiome of rural Nicaraguan children.** BA Piperata, J Lee, S Lee, A Mayta, A Cary, P Oruganti, R Garabed, W Wilson
17. **Socioecological determinants of water security and implications for health in the Galápagos.** KM Nicholas, ME Bentley, E Terán, AL Thompson
18. **Water, Food and the Dual Burden of Disease in Galápagos, Ecuador.** AL Thompson, KM Nicholas, E Watson, E Terán, ME Bentley
19. **Social determinants of household diet quality in Galápagos, Ecuador.** E Watson, AL Thompson, ME Bentley, E Hopping
20. **Cyclic Food Insecurity and its Consequences in Campus-living University Students.** M Bruening, A Brewis, A Wutich
21. **Very low household food security predicts lower odds of menarche among U.S. Girls.** M Burris, AS Wiley
22. **Critical Periods of Maternal Stress Exposure and Early Childhood Obesity: Exploring Risk and Protective Factors in New Zealand.** CV Farewell, ZM Thayer
23. **The interaction between prenatal hair cortisol and stressful life events during pregnancy predicts postnatal PTSD.** L Rivera, A Narayan, R Bernstein, W Harris, AF Lieberman
24. **Impact of sleep duration and depression on the risk of preterm birth in Qatar.** LM Gerber, D D'Angelo, M Altemus

25. **Evaluating the long-term impacts of prenatal stress from apartheid on adult inflammation, blood pressure, and mental health risk in Soweto, South Africa.** AW Kim, PD Ngwepe, T Chirwa, RS Mohamed, CW Kuzawa, SA Norris
26. **Associations between depression, inflammation, and stress in mothers from a pregnancy cohort in Cebu City, the Philippines.** MS Butler, SM Koning, CW Kuzawa, J Borja, TW McDade.
27. **Higher maternal depression is associated with lower vaccination adherence among infants in western Kenya.** CL Benzaken, JD Miller, A Smith, SL Young
28. **Determinants of Ramadan fasting during late pregnancy and postpartum milk cortisol concentration in Rabat, Morocco.** M Guilfoyle, EM Chester. AS Wiley
29. **Altitudinal and Nutritional Effects of Breast Milk Composition in Nunoa, Peru.** LA Schafrank, MK Hoke
30. **Minerals and trace elements in Polish mothers' milk .** LD Klein, A Galbarczyk, G Jasienska, K Hinde
31. **Exploring interleukin-1 (IL-1) and interleukin-1 receptor antagonist (IL-1ra) in infant saliva.** EM Miller
32. **Variation in sex differences in infant breastfeeding behavior with age.** C Chaney, C Valeggia
33. **Sexual Dimorphism in Stature as a Measure of Gender Inequality.** RH Steckel
34. **'If I made it, it's good': What and how mothers decide to feed their infants in the transition to a solids-based diet.** KJ Barrett
35. **Alloparental care of infants and household composition in Tamil Nadu, India.** LG Mattern, AS Wiley
36. **Determinants and consequences of infant carrying behavior in a small-scale society.** DP Tracer SA Wyckoff
37. **Relationships between maternal psychosocial health and physical growth during infancy in Vanuatu.** AS Therrien, G Buffa, A Roome, E Standard, G Taleo, L Tarivonda, K Olszowy, KN Dancause
38. **Predictive accuracy of short-term measurements for longer-term growth rates in rural Gambian infants.** Z Stanley, J Dykes, DJ Naumenko, GK O'Connor, N Affara, DB Dunger, KK Ong, AM Prentice, SE Moore, RM Bernstein
39. **Head circumference growth trajectories from prenatal to postnatal life in rural Gambian infants: influences and implications.** DJ Naumenko, N Affara, DB Dunger, SE Moore, KK Ong, AM Prentice, RM Bernstein
40. **Is there mortality/survival bias in the timing of dental formation?** L Spake, HFV Cardoso.

41. **Assessing local variability in Tsimane growth outcomes derived from international vs. within-population references: considerations for biological relevance.** M Martin
42. **Nutrition and health in transition: Understanding associations between childhood linear growth stunting and later body composition.** S Tanner, WR Leonard, V Reyes-Garcia, C Lee, E Conde, T Huanca
43. **Predictors of child iron deficiency anemia and response to oral iron supplementation in Lima, Peru.** AF Dorsey
44. **Samoans neonates may have higher ponderal indexes compared to American neonates from Florida.** C Sweetman, K Arslanian, UT Fidow, T Naseri, NL Hawley
45. **Preliminary acceptability, feasibility, and efficacy of a group prenatal care intervention targeting the health of overweight and obese pregnant women in American Samoa.** NL Hawley, BT Muasau-Howard, K Faasalele Savusa, M Fai'ai, L Suaiaunoa-Scanlon, J Ickovics, RK Rosen
46. **Understanding the risk factors of gestational diabetes and associated pregnancy outcomes in Samoan women.** TY Chen, U Fidow, T Naseri, NL Hawley
47. **Effects of maternal nutrient intake during 31-37 weeks gestation and *CREBRF* genotype on offspring body composition in Samoa.** KJ Arslanian, UT Fidow, T Atanoa, T Naseri, RL Duckham, ST McGarvey, NL Hawley
48. **Do Two-Year Dietary Pattern Trajectories Influence Body Mass Index in Early Childhood? Results from the *Ola Tuputupua'e* "Growing Up" Cohort Study.** CC Choy, D Wang, T Naseri, CS Ulberg, MS Reupena, RL Duckham, A Baylin, NL Hawley
49. **Barriers to a healthy childhood diet: the role of maternal perceptions surrounding food healthiness, social status and cost.** VK Tanawattanacharoen, CC Choy, TJ Anesi, T Naseri, CS Ulberg, MS Reupena, NL Hawley
50. **Changing body size perceptions among Samoan adults: the view across two decades.** SB To, T Naseri, MS Reupena, A Pomer, AA Brewis, ST McGarvey, NL Hawley
51. **Enumerator body size and participant body perception: Soifua Manuia (Good Health) study in Samoa.** A Pomer, SB To, T Naseri, SR Muagututia, ST McGarvey, NL Hawley
52. ***CREBRF* p.Arg457Gln genotype, type 2 diabetes and body composition among adult Samoans.** ST McGarvey, NL Hawley, RL Duckham, A Pomer, AI Wetzell, R Minster, DE Weeks, T Naseri, MS Reupena
53. **Evaluating the feasibility and effectiveness of self-monitoring of health – a pilot intervention trial among Samoan women.** EL Kocher, M Desai, T Naseri, NL Hawley
54. **C-reactive protein (CRP) promoter allele variation and CRP level is associated with greater obesity in Ni-Vanuatu women.** H Mann, A Pomer, KM Olszowy, C Sun, H Silverman, KN Dancause, G Lee, CW Chan, L Tarivonda, G Taleo, A Kaneko, CA Weitz, RM Garruto, JK Lum
55. **Environment, epigenetics, and vitamin D in Cebu City, the Philippines.** J Perez, TW McDade

56. **Genetic analysis of the South American Wapishana population.** CA Koch, KL DeRosa, DA Merriwether
57. **Mitochondrial DNA and Y-chromosome Analysis of the South American Macushi Population.** KL DeRosa, CA Koch, DA Merriwether
58. **Temporal changes in adiposity in Akwesasne Mohawk children during the obesity epidemic (1978 – 2000).** F Lee, LM Schell, MV Gallo, S Pfeiffer, D Garry, Akwesasne Task Force on the Environment
59. **Recent trends in central adiposity in the Fels Longitudinal Study.** B Gonzalez, AC Choh, VM Limon, M Lee, SA Czerwinski
60. **Diagnosis and Management of Childhood Obesity within a Pediatric Primary Care Clinic.** TL Foster.
61. **Fat bias among adolescents from two populations varying by obesity prevalence.** JM Cullin
62. **Sex-specific associations between metabolic syndrome and mental health outcomes.** VM Limon, M Lee, AC Choh, SA Czerwinski.
63. **Association of serum triglyceride to HDL cholesterol ratio with body fatness and insulin level among young adults from Merida, Mexico.** S Datta Banik, AI Nudel Ontiveros, RM Méndez González
64. **Biomarkers of chronic diseases risk among the Mapuche and Atacameño from Chile.** CI Fernández, AS Wiley
65. **Influence of metabolic rate and changes in energy balance on leptin levels in a sample of young adults.** KS Dong, J Thompson-Vasquez, SB Levy, AA Miller, WR Leonard
66. **Diagnosed diabetes and elevated blood glucose are more strongly associated with muscle mass than BMI in Vanuatu (South Pacific).** ME Gauck, K Wander, A Roome, E Standard, ML Duris, KN Dancause, G Taleo, L Tarivonda, KM Olszowy
67. **Variability in activation rates and energy expenditure of brown adipose tissue in a diverse population.** AM Niclou, C Ocobock
68. **Quantifying life history trade-offs across the life span.** AD Blackwell
69. **Energetics and Fertility: The Impact of Body Mass and Insulin on Parity** M Charifson, D Cummings, J Stieglitz, H Kaplan, M Gurven, BC Trumble
70. **BaYaka foragers' daily strength-requiring activities and physically intensive demands: variation by sex but few anthropometric correlates.** AH Boyette, A LeHanka, MS Sarma, S Lew-Levy, LT Gettler, V Miegakanda
71. **Workday vs. non-workday differences in circadian rhythm measures of salivary cortisol in healthy premenopausal women.** LC Abernathy, ML Duris, GD James, AD Baker, DH Bovbjerg

72. **The contrast in circadian patterns of urinary epinephrine and cortisol excretion between premenopausal women with or without familial histories differs between those at risk for hypertension or breast cancer.** GD James.
73. **Increased overall fingerprint asymmetry (FA) predicts higher systolic blood pressure, independent of age, while independence decreases FA in the fourth digit, in a semi-modernized population in Vanuatu.** K Gowen, M Li, A Kaneko, L Tarivonda, G Taleo, RM Garruto, JK Lum
74. **Chronic Inflammation and the Onset and Pace of Reproductive Maturation in Mayan Girls.** AP Prescivalli, KG Salvante, PA Nepomnaschy
75. **Household structure is not related to men's salivary T values in Cebu, Philippines.** S Rosenbaum, CW Kuzawa, TW McDade, S Agustin, LT Gettler
76. **Mothers' and fathers' testosterone and oxytocin in a small-scale fishing-farming community: variation based on marital conflict and paternal contributions.** LT Gettler, MS Sarma, S Lew-Levy, A Bond, BC Trumble, AH Boyette
77. **Sleep patterns, the hypothalamic-pituitary-adrenal axis, and the pubertal transition in a group of Mayan girls - A preliminary analysis.** A Rowlands, KG Salvante, L McKinnon, D Samson, PA Nepomnaschy
78. **Endocrine disrupting chemical and sex ratio - the cocktail effect hypothesis.** CN West, MV Gallo
79. **Sexual Attraction and Female Olfactory Detection of Naturally Cycling Females.** AE Guitar, MG Manganello, A Murray, R Berkowitz, DM Cassino, LE Erb, LE Miller
80. **How do immune functioning and pathogen-avoidance psychology relate to health-protective sexual behavior?** JK Hlay, G Albert, SA Arnocky, CR Hodges-Simeon
81. **Individual Variation in Hormones and Immunological Risk Through the Menstrual Cycle.** AL Schneider, EA Quinn
82. **Maternal Height and Reproductive Success in a Short-Statured Population** S Tuller, A Veile, K Kramer
83. **Do measures of SES and vulnerability predict reproductive health outcomes among US women?** TN Shirazi, AY Rosinger
84. **Sex-based disparities in physical activity in urban-dwelling African Americans: Results from a pilot study.** M Gomez, TA Wilson, R Steinmuller, S Paskert, E Zaccardelli, N Burt, KM Olszowy
85. **Biological age estimation using NHANES 2005-2006: Relationship between physical activity, inflammation, and biological age.** JS Griffin, MV Sorensen
86. **Food insecurity predicts less cognitive decline in older Mexican adults in WHO study on global AGEing and adult health (SAGE).** AC Dona, AM DeLouize, G Eick, E Thiele, AS Rodriguez, BSM Espinoza, R Robledo, S Villalpando, P Kowal, N Naidoo, S Chatterji, JJ Snodgrass
87. **Grandmotherhood and intergenerational caregiving strategies in southeast Massachusetts.** SI Shreyer, EJ Ingmanson

88. **Changes in living arrangements of older adults in Egypt 2000-2014.** GH Ice, TB Fahmei, R Tanda, M Gartin, Z Haile, A Ruhil
89. **Some benefits of a longer lifespan: Households with grandparents provide economic and health benefits for parents.** AM DeLouize, G Eick, E Thiele, W Fan, Y Guo, Z Yang, Y Lu, A Salinas Rodriguez, BS Manrique-Espinoza, R Robledo, S Villalpando, R Biritwum, P Arokiasamy, T Maximova, N Refilwe Phaswana-Mafuya, K Peltzer, P Kowal, N Naidoo, S Chatterji, JJ Snodgrass
90. **The menopausal transition in Mongolia: a pilot study.** LL Sievert, Z Namsrai, O Bayanjargal
91. **Knowledge and attitudes towards menopause and symptom experience.** P Rulu, M Dhall
92. **Treatment coverage and HIV virulence among men who have sex with men.** SE Stansfield, JT Herbeck, GS Gottlieb, NF Abernethy, JT Murphy, JE Mittler, SM Goodreau
93. **Human risk of Lyme disease, anaplasmosis, and babesiosis in State and county parks in the Upper Susquehanna River Basin of New York.** A Keane, C Pritchard, A Roome, M Shamooun-Pour, R Spathis, RM Garruto
94. **Robusticity similarities over time in North Alabama Native American populations.** JG Sponholtz
95. **Prehistoric oral health in the Volta Grande of the Xingu River, State of Pará, Amazonia, Brazil.** LM Müller, TM Costa, R Kipnis, I Diniz, HP Silva
96. **Fluctuations in natality during the 1918/19 Influenza pandemic and Great War: The Maltese experience.** L Tripp; LA Sawchuk
97. **A Case Study for Historical Trauma, Chronic Stress, and Infectious Disease: Tuberculosis Morbidity at Haskell Institute, 1910-1940.** RE Wilbur, SM Corbett
98. **Neither protein content nor protein quality influence human energy intake: preliminary results from an experimental test of the Protein Leverage Hypothesis.** RL Bender, DL Dufour, TM Halliday, MA Cornier, AC Barnes
99. **Kava consumption in Vanuatu and its impact on psychological health.** RL Thomascik, A Roome, E Standard, L Tarivonda, G Taleo, KN Dancause, KM Olszowy
100. **Turn on, tune in, and drop crack: Psychedelic use aids addiction recovery.** DR Patterson, CD Lynn
101. **Observers accurately assess self-reported male health from facial photographs alone.** G Albert, J Hlay, Z Senveli, SA Arnocky, CR Hodges-Simeon
102. **Meeting field constraints on biomarker use: assessment of telomere length in dried blood spots.** MH Bondy, J Lin, AA Prather, S Shrestha, R Shrestha, S Thapa, D Tamrakar, BA Kohrt, CM Worthman
103. **Qualitative and quantitative analysis of biomarker stability via chemiluminescent enzyme immunoassay in human sera.** RN Chowdhury, K Wander, E Culver, A Gallo, C Cardona, RM Garruto, JK Lum

104. **An assessment of urinary triiodothyronine (T3) levels as a biomarker of thyroid hormone action: preliminary data from the Shuar Health and Life History Project.** SB Levy, A Sancilio, L Christopher, FC Madimenos, SS Urlacher, JJ Snodgrass, LS Sugiyama, H Pontzer, RG Bribiescas
105. **Systematic review of the association between cortisol secretion and telomere length in humans.** RL Tennyson
106. **MOLONGA: Social dynamics, physical activity, and hormone reactivity among BaYaka foragers.** MS Sarma, A Boyette, S Lew-Levy, Valchy Miegakanda, LT Gettler
107. **Family and career dynamics among biological and applied anthropologists.** E Terrell, C Lynn, M Howells
108. **Student perspectives on lab effectiveness in an introductory biological anthropology course.** SL Johnston, M Knabb, J Auld, L Rieser-Danner
109. **Can Rap Guide Us to Evolution or Is It Just True? Comparing Creative Performance and Lecture Styles of Evolution Education in Influencing Literacy and Attitudes.** C Keck, C Lynn, W Evans, B Brinkman

WEDNESDAY, MARCH 27, 2019 (CONTINUED)

11:30 a.m.–12:45 p.m.

LUNCH BREAK

11:30 a.m. –12:30 p.m.

BREAK-OUT SESSIONS

BREAKOUT SESSION 1

Challenges, opportunities and rewards of anthropological research in Latin America: shared wisdom by insiders, outsiders and everyone in-between

Alejandra Núñez-de la Mora, Organizer

Room: Hilton Veterans B

BREAKOUT SESSION 2

Disentangling Power Dynamics: Participatory Action Research Methods & Ethical Considerations

Mandy Guitar and Kyle Gowan, Organizers

Room: Hilton Veterans C

1:00 p.m.–1:15 p.m.

OPENING WELCOME

Alexandra Brewis Slade

President of the Human Biology Association

INTRODUCTION TO PLENARY SESSION

Asher Rosinger and Alexandra Brewis Slade, Organizers

Room: Hilton Superior A

1:15 p.m.–4:45 p.m.

PLENARY SESSION

Life and Death: Human Biology and Water

Organizers: Asher Rosinger and Alexandra Brewis Slade

Water is an immediate and crucial factor in human survival, well-being, and reproduction, underpinning all our physiology, function, and performance. However, contaminated water carries risks of disease and death. Water insecurity is a powerful precursor for stress and undermines mental health. Yet, the field of human biology has barely addressed water, even as the challenges of shortages and contamination rise as a massive, growing global threat: water insecurity now affects 4 billion people for at least 1 month a year. Climate change, too, is affecting weather patterns, leading to increased periods of drought and flooding, thereby increasing uncertainty related to precipitation and cleanliness of water while changing a variety of exposures from pathogens to allergens. The increasing commodification of water, institutional deployment of power related to water, rising inequalities, and aging infrastructures also add massively to human vulnerabilities globally, across high as well as low income nations. This plenary session brings together for the first time an explicit “human biology of water,” drawing disparate lines of enquiry together to consider how water shapes human biology, the ways that populations cope in the contexts of both physical and institutional vulnerabilities, and the justice and ethical implications for addressing growing water issues as key factor in human biology in the millennium ahead.

1:15 pm

Water throughput in humans and apes

H Pontzer, MH Brown, DA Raichlen, BM Wood, A Luke, LR Dugas, and SR Ross

- 1:45 pm **Bio-behavioral variation in human water needs: How early life environments shape thirst, hydration, and body water homeostasis.**
AY Rosinger
- 2:15 p.m. **Epidemic cholera and micronutrient deficiency — Grande Saline, Haiti, 2011.**
S Chae, J Boncy, AJ Gerard, P Suchdev, S Kim, E Mintz, and BR Jackson
- 2:45- 3:00 p.m. **COFFEE BREAK**
- 3:00 p.m. **Modern water, its influence on biology and culture: What the experience of Native Americans teaches us.**
LM Schell
- 3:30 p.m. **Burdened by Both: Coping and Disease at the Intersection of Water and Food Insecurity**
A Brewis and C Workman
- 4:00 p.m. **Urban Water Insecurity in the Global South: Implications for Health and Human Biology**
EA Adams and J Stoler
- 5:00 p.m. **RAYMOND PEARL MEMORIAL LECTURE**
Water Insecurity: An Agenda for Research and Call to Action for Human Biology
A Wutich
Room: Hilton Superior A
- 6:30 p.m.-
9:30 p.m. **HBA DINNER RECEPTION**
Room: Hilton Superior B

THURSDAY, MARCH 28, 2019

- 8:30–10:00 a.m. PODIUM SESSION A: New directions in human biology: Stress and wealth in health, development and disease**
Chair: Ben Trumble
Room: Hilton Superior A
- 8:30 a.m. **The flexibility of fetal tolerance: immune function during pregnancy varies between two ecologically distinct populations.**
CM Hové, BC Trumble, AS Anderson, J Stieglitz, H Kaplan, M Gurven, AD Blackwell.
- 8:45 a.m. **Effects of maternal perinatal stress on cortisol regulation in the Galápagos Islands: implications for the HPA axis and developmental origins of health and disease.**
HR Jahnke, AL Thompson

- 9:00 a.m. **The effects of prenatal stress on infant HPA axis function at 12-months: hormonal and epigenetic mechanisms.**
KS Wiley, C Camilo, G Gouveia, V Euclides, G Polanczyk, E Miguel, H Brentani.
- 9:15 a.m. **Predictors of Milk Cortisol in North American Women.**
RN Anyim, S Li, D Armstrong, R Spathis, KS Wander.
- 9:30 a.m. **Dimensions of adolescent resilience respond to social-ecological change in Spain**
E Koselka, E Felt, E Ronda Pérez
- 9:45 a.m. **Multidimensional models of wealth: different forms of wealth may differentially predict health.**
CE Owens, C Hadley, DJ Hruschka
- 10:00 a.m. COFFEE BREAK**
- 10:15–11:45 a.m. PODIUM SESSION B: Diet, Body Composition and Inflammation in Changing Environments**
Chair: Yosuke Inoue
Room: Hilton Superior A
- 10:15 a.m **Changes in body composition and consumption of market foods among adult Tsimane' forager-horticulturalists of Bolivia, 2002–2010.**
HJ Bethancourt, AY Rosinger
- 10:30 a.m. **Diurnal testosterone patterns among Shuar men of Amazonian Ecuador: Variation in association with body mass and age**
TE Gildner, LS Sugiyama, MA Liebert, JM Schrock, SS Urlacher, D Amir, CJ Harrington, TJ Cepon-Robins, FC Madimenos, RG Bribiescas, JJ Snodgrass
- 10:45 a.m. **Exploring the Obesogen Hypothesis: Dietary patterns and PCB exposure in relationship to overweight status and abdominal circumference.**
J Ravenscroft, MV Gallo, LM Schell
- 11:00 a.m. **Association between loneliness, social support and hypertension among adults in rural Fujian, China.** A Yazawa, Y Inoue, G Cai, R Tu, F He, T Yamamoto, C Watanabe
- 11:15 a.m. **Sex-based variation in the relationship between body composition and C-reactive protein in Vanuatu.**
KM Olszowy, E Standard, A Roome, L Tarivonda, G Taleo, KN Dancause, K Wander
- 11:30 a.m. **Diurnal neuroendocrine-immune regulation in ecological context: assessing relationships between cortisol and leukocytes among Honduran women.**
AR Garcia, BC Trumble, M Marquez, MD Gurven, AD Blackwell

- 12:00–1:15 p.m.** **HBA ANNUAL AWARDS LUNCHEON**
Room: Hilton Hope AB
- 1:30–3:00 p.m.** **PODIUM SESSION C: Life history trade-offs: growth, survival and reproductive success**
Chair: Morgan Hoke
Room: Hilton Superior A
- 1:30 p.m. **Maternal birth weight is associated with milk epidermal growth factor in Filipino women.**
EA Quinn, D Kuziez, J Harkey, S Burack, J Borja
- 1:45 p.m. **More Milk for Daughters? Sex-Differentiated Milk Synthesis and Breastfeeding in Macaques and Humans**
K Hinde, NJ Timpson, S Moossavi, AB Becker, P Mandhane, SE Turvey, TJ Moraes, D Lefebvre, P Subbarao, MR Sears, M Azad
- 2:00 p.m. **The energetic ecology of childhood: Tradeoffs in energy allocation and the impact of market integration on ontogeny and health**
SS Urlacher, JJ Snodgrass, LR Dugas, FC Madimenos, LS Sugiyama, H Pontzer
- 2:15 p.m. **Evidence for a metabolic trade-off between the energy requirements of brain development and the body mass index during human childhood.**
C Kuzawa, C Blair, J Aronoff, C Wu, M Markl, A Shaibani, A Ragin, S Schnell
- 2:30 p.m. **Unelevated hemoglobin concentration and pulse associate with lifetime reproductive success of ethnic Tibetan women at high altitude in Nepal**
C Jeong, DB Witonsky, B Basnyat, M Neupane, CM Beall, G Childs, SR Craig, J Novembre, AW Di Rienzo
- 2:45 p.m. **Accelerated senescence as a cost of reproduction: An analysis of oxidative stress biomarkers as a reflection of life history trade-offs in healthy post-menopausal Polish women.**
A Sancilio, G Jasienska, C Panter-Brick, and RG Bribiescas
- 3:00 p.m.** **COFFEE BREAK**
- 3:15–4:30 p.m.** **PODIUM SESSION D: Inequalities and health across the lifespan**
Chair: Amanda Veile
Room: Hilton Superior A
- 3:15 p.m. **Risk of complication diagnoses is associated with higher levels of food insecurity during pregnancy: New evidence and an evolutionary perspective from the Mothers to Babies nutrition study in Hamilton, Canada**
LJ McKerracher, T Moffat, ME Barker, DM Sloboda

- 3:30 p.m. **Household Sanitary Conditions Modulate the Relationship between Birth Mode and Child Growth.**
A Veile, E Otarola-Castillo, C Gonzales Canas, K Kramer
- 3:45 p.m. **Maternal distress and child inflammation in a high poverty setting.** KK Schmeer, J DeCaro, BA Piperata, N Hoehn, G Brown, W Wilson
- 4:00 p.m. **Sickle Cell Disease and the Relationships of Race/color Self-declaration and Genomic Ancestry in the Brazilian Amazon**
AK Silva, HP Silva
- 4:15 p.m. **Four decades of socioeconomic inequalities and secular changes in the physical growth of Guatemalans.**
L Mansukoski, W Johnson, K Brooke-Wavell, JA Galvez, L Furlan, B Bogin
- 4:30 p.m. **Young male infants exhibit more babbling when exposed to heightened allomaternal care.** B Singletary

FRIDAY, MARCH 29, 2018

**8:30 a.m.–11:30 a.m. FLASH TALKS:
Innovations in Human Biology**
Chair: Cara Ocobock
Room: Hilton Superior A

8:30 a.m.-9:45 a.m Group A
“Yes, and...” How performing improvisational comedy reduces stress and promotes well-being. C Ocobock, M Sarma, C Lynn, L Gettler

Disability and influenza: an unrecognized syndemic. JL Dimka, SE Mamelund

Do inflammatory markers predict heart disease and mortality in gorillas as they do in humans? AN Edes, DE Crews

Visit-to-visit variability of blood pressure and cardiovascular events among working-age population in Japan. Y Inoue, K Kuwahara, I Kabe, T Mizoue, S Dohi

Caregiving for disabled family members does not predict telomere length in the Philippines. PH Rej, RL Tennyson, NR Lee, DTA Eisenberg

Chamorro Origins and Post-Settlement History: A bi-parental DNA analysis. MG Vilar, F Camacho, T Schurr

Protracted fasting, high sugar intake and signs of impaired glucose metabolism in women living in poverty in a food insecure rural setting: The perfect metabolic storm. A Núñez-de la Mora, H Cuevas-Méndez, G Amescua-Villela, S Negrete-Yankelevich

Riverine women from the Mamirauá Sustainable Development Reserve (MSDR), Tefé, Amazonas, Brazil: Nutritional Status and Social Determinants of Health. LA Filgueiras, HP Silva, EMLS Ramos, EAF Moura

Food insecurity and its role in the Developmental Origins of Health and Disease (DOHaD): The Mothers to Babies (M2B) study in Hamilton, Ontario, Canada. T Moffat, L McKerracher, D Williams, S Oresnik, M Barker, DM Sloboda

9:45 a.m. BREAK

10:00-11:30 Group B

Comparisons of C-reactive protein and metabolic syndrome in first generation US immigrants and those remaining in home communities in Ecuador. H Shattuck-Heidorn, G Eick, KL Kramer, LS Sugiyama, M Champang, FC Madimenos, JJ Snodgrass, PT Ellison

Associations of activity patterns and biometric indices on two islands in Vanuatu. PS Larson, K Gowen, M Li, L Tarivonda, G Taleo, RM Garruto, JK Lum

Adiposity rebound in the Tsimane': A comparison across time and populations. JE Aronoff, TW McDade, WR Leonard, CW Kuzawa

Tattooing and Immune Response: More like Exercise or an Inoculation? CD Lynn, M Howells, D Herdrich, J Ioane, D Hudson, TW Fitiao.

Knowledge is sometimes power: the differential role of hypertension notification and human biology research in adult Samoans. AC Rivara, A Pomer, T Naseri, SR Muagututia, ST McGarvey, NL Hawley

Why so many Agta boys? Biological mechanisms and sex ratio skew in a hunter-gatherer population. AE Page, S Myers, M Dyble, AB Migliano

Biological motherhood leads to long-lasting changes in attentional functioning. VT Miller, A Veile, LA VanWormer

Breastmilk sIgA antibody levels in relation to maternal protein-energy nutrition, micronutrient deficiencies, and infant sex in northern Kenya. M Fujita, N Paredes Ruvalcaba, N Jess, E Brindle

Evolutionary perspectives on the microbiome in Alzheimer's Disease. M Fox, D Knorr, K Peters