



# Current officers and members of standing committees

## 49th Annual Meeting

### HUMAN BIOLOGY ASSOCIATION

March 20–22, 2024 | Los Angeles, CA, USA.

JW Marriott LA Live

### OFFICERS

PRESIDENT	Josh Snodgrass (2022–2024)
PRESIDENT ELECT	Richard G. Bribiescas (2023–2024)
TREASURER	EA Quinn (2021–2025)
SECRETARY	Tara Cepon-Robins (2023–2027)

### EXECUTIVE COMMITTEE

PROGRAM	Amanda Veile (2023–2027)
PUBLIC RELATIONS	Christopher Lynn (2020–2024)
INTERNATIONAL	Hilton Pereira da Silva (2021–2025)
MEMBERSHIP	Felicia Madimenos (2022–2026)

### NOMINATIONS AND ELECTIONS COMMITTEE

Melanie Martin, Chair (2022–2024)

Theresa Gildner (2022–2024)

Asher Rosinger (2023–2025)

Ruby Fried (2023–2025)

### PUBLICATIONS COMMITTEE

Masako Fujita, Chair (2023–2027)

Barbara Piperata (2021–2025)

Alanna Rudzik (2021–2025)

Samuel Urlacher (2023–2027)

William R. Leonard (Editor-in-Chief, *American Journal of Human Biology*, ex officio)

## 1 | GREETINGS FROM HBA PROGRAM COMMITTEE CHAIR!

The 49th Annual Meeting of the Human Biology Association will be held simultaneously in Los Angeles, CA and online in a hybrid/hyFlex format from Tuesday 19 to Friday, March 22, 2024. This format allows for maximum flexibility and helps increase diversity and inclusion by providing opportunities for international scholars to participate. I ask for your patience as we continue to improve the execution of this complex programming.

The scientific meeting opens with a large Poster Session on Wednesday March 20, 8:00 a.m. to 11:00 a.m. PDT. The in-person poster session occurs from 8:00 a.m. to 10:00 a.m. PDT, and the virtual poster session occurs from 10:00 a.m. to 11:00 a.m. PDT. All poster presenters are asked to upload a PDF of their poster to Virtual Poster Session and be available to present online, even those who present their posters in-person. This will help maximize interaction between in-person and online participants. Though all posters are part of the virtual session, we encourage in-person attendees to visit the virtual-only posters to promote equity and inclusion for all meeting attendees. Following the poster sessions, Josh Snodgrass and I will host a lunchtime breakout session, “Raymond Pearl: Considering an Uncomfortable Legacy of Scientific Racism.”

On Wednesday afternoon, there is an exciting Plenary Session, “Gender/Sex: Unsettling Binaries in Human Biology,” organized by L. Zachary DuBois and Alexandra Brewis, with generous funding support from the School of Human Evolution and Social Change at Arizona State University. We are thrilled to announce that the Plenary Lecture will be delivered by Dr. Anne Fausto-Sterling, a world leading expert in the biology of gender development. She will present “(Re)Shaping identity: from points on a linear scale to irregular shapes on a multi-dimensional landscape” at 5:00 p.m. PDT. Dr. Fausto-Sterling is a Brown University Professor Emerita and fellow of the American Association for the Advancement of Science (AAAS).

The annual welcome reception and awards ceremony will follow the plenary session. Congratulations to this year's recipients of the Franz Boas Distinguished

Achievement Award, Alexandra Brewis, and the Michael A. Little Early Career Award winners, Morgan Hoke and Sam Urlacher! Congratulations to Jennifer Raff, who received the 2024 HBA Book Award for “Origin: A Genetic History of the Americas!” Congratulations to this year's International Travel Award recipients Faith Cain, Abigail Elise Colby, Silviene Oliveira, and Anahí Ruderman!

Thursday's program will begin with contributed podium presentations and flash talks, roughly half of these are by students. There will also be a lunchtime student breakout session, “From Submission to Success: A Conversation about Navigating Early Career Publications,” chaired by Sofiya Shreyer and Emily Hart Barron. This will be followed by an invited session, “Tribute to Michael Little: Last 20 years of Human Biology Research Among Pastoralists,” organized by Benjamin Charles Campbell.

The HBA Business Meeting will be held on Thursday evening. Please consider attending in-person or virtually as there will be a discussion of and vote on changes to the HBA bylaws. Following the Business Meeting on Thursday, the students will host their annual reception and networking session. The conference closes on Friday morning with an invited place-based podium session, “Perspectives on Biological Anthropology in Brazil,” chaired by Hilton P. Silva. For those attending the AABA meeting, a co-sponsored HBA/AABA session, “Terminology, Theory, and Method for the Study of Inequality of Health: Breakthroughs or Barriers?” (chaired by Heather Edgar and Lexi O'Donnell) will be held on Saturday March 23, from 2:30 p.m. to 5:15 p.m. PDT.

A detailed schedule of presentations and events, abstracts, and an index of presenters follow this summary and is also available at [www.conftool.org/hba2024](http://www.conftool.org/hba2024). Thank you to the 2024 HBA Program Committee members, Hugo Azcorra, Lee Gettler, Andrew Wooyoung Kim, Stephanie Levy, Alejandra Núñez de la Mora, Zaneta Thayer, and Sharon Williams. A special thanks to the *American Journal of Human Biology* and to Wiley for their sponsorship. Welcome to the meetings, and thank you for participating in these exciting events. I sincerely hope that you enjoy this year's hybrid program!

Amanda Veile, HBA Program Committee Chair

**49th Annual Meeting  
HUMAN BIOLOGY ASSOCIATION  
PROGRAM SUMMARY**

**TUESDAY, March 19, 2024**

7:00 p.m.–9:00 p.m. **EC MEETING**

8:00 p.m.–10:00 p.m. **STUDENT HAPPY HOUR**

Location: Golden Gopher

**WEDNESDAY, March 20, 2024**

7:30 a.m.–8:30 a.m. **COMMUNITY BUILDING AND NETWORKING PROGRAM**

Session Chairs: Tian Walker and Anahí Ruderman

Room: Gold III

7:30 a.m.–5:00 p.m. **REGISTRATION**

Room: Gold Foyer

8:00 a.m.–10:00 a.m. **IN-PERSON POSTER SESSION**

Session Chairs: Lee Gettler and Andrew Wooyoung Kim

Room: Diamond

9:15 a.m.–9:30 a.m. **COFFEE AVAILABLE**

10:00 a.m.–11:00 a.m. **VIRTUAL POSTERS**

Session Chairs: Alejandra Núñez de la Mora and Amanda Veile

Room: Diamond/Virtual

11:00 a.m.–1:00 p.m. **LUNCH BREAK**

11:30 a.m.–12:30 p.m. **BREAKOUT SESSION**

“Raymond Pearl: Considering an Uncomfortable Legacy of Scientific Racism”

Chairs: Josh Snodgrass, Amanda Veile

Room: Gold IV

11:30 a.m.–12:45 p.m. **AJHB EDITORIAL BOARD MEETING**

Room: Georgia

1:00 p.m.–4:00 p.m. **PLENARY SESSION**

**Gender/Sex: Unsettling Binaries in Human Biology**

Chairs: L. Zachary DuBois and Alexandra Brewis

Discussant: Claudia Vallengia

Room: Gold IV

2:05 p.m.–2:20 p.m. **COFFEE BREAK**

4:00 p.m.–5:00 p.m. **BREAK**

5:00 p.m.–6:00 p.m. **PEARL MEMORIAL LECTURE**

“(Re)Shaping identity: from points on a linear scale to irregular shapes on a multi-dimensional landscape”

Dr. Anne Fausto-Sterling

Room: Gold IV

6:30 p.m.–9:30 p.m. **WELCOME RECEPTION**

Room: Gold III

(Continues)

**THURSDAY, March 21, 2024****7:30 a.m.–8:30 a.m.****REGISTRATION**

Room: Gold Foyer

**8:00 a.m.–9:30 a.m.****PODIUM A****Linking Psychosocial Factors to Health and Well-Being**

Session Chair: Stephanie B. Levy

Room: Gold IV

**9:30 a.m.–9:45 a.m.****COFFEE BREAK****9:45 a.m.–11:15 a.m.****PODIUM B****Understanding Human Biocultural Variation and Health**

Session Chair: Sharon Williams

Room: Gold IV

**11:15 a.m.–12: 45 p.m.****LUNCH BREAK****11:30 a.m.–12:30 p.m.****STUDENT BREAKOUT SESSION**

“From Submission to Success: A Conversation about Navigating Early Career Publications”

Chairs: Sofiya Shreyer and Emily Hart Barron

Room: Gold IV

**12:45 p.m.–2:10 p.m.****FLASH TALKS****Developmental Processes from Gestation through Adolescence**

Session Chair: Zaneta Thayer

Room: Gold IV

**2:10 p.m.–2:25 p.m.****COFFEE BREAK****2:25 p.m.–4:40 p.m.****PODIUM C****Tribute to Michael Little: Last 20 years of Human Biology Research Among Pastoralists**

Special session organized by Benjamin Charles Campbell

Discussant: Bill Leonard

Room: Gold IV

**4:40 p.m.–5:00 p.m.****BREAK****5:00 p.m.–6:30 p.m.****BUSINESS MEETING**

Room: Gold IV

**7:00 p.m.–9:00 p.m.****STUDENT RECEPTION**

Room: Gold Foyer

**FRIDAY, MARCH 22, 2024****8:30 a.m.–10:40 a.m.****PODIUM D****Perspectives on Biological Anthropology in Brazil**

Place-based special session organized by Hilton P. Silva

Room: Gold IV

**10:40 a.m.–11:00 a.m.****COFFEE AVAILABLE**

**49th Annual Meeting  
HUMAN BIOLOGY ASSOCIATION  
SCIENTIFIC PROGRAM**

**TUESDAY, March 19, 2024**

7:00 p.m.–9:00 p.m.

**EC MEETING**

8:00 p.m.–10:00 p.m.

**STUDENT HAPPY HOUR**

Location: Golden Gopher

**WEDNESDAY, March 20, 2024**

7:30 a.m.–8:30 a.m.

**COMMUNITY BUILDING AND NETWORKING PROGRAM**

Session Chairs: Tian Walker and Anahí Ruderman

Room: Gold III

7:30 a.m.–5:00 p.m.

**REGISTRATION**

Room: Gold Foyer

8:00 a.m.–11:00 a.m.

**POSTER SESSION**

**In-Person Poster Session**

Session Chairs:

Lee Gettler and Andrew Wooyoung Kim

Room: Diamond

7:00 a.m.–8:00 a.m.

Poster setup

8:00 a.m.–9:00 a.m.

Authors of in-person, odd-numbered posters present for discussion

9:15 a.m.–9:30 a.m.

**COFFEE AVAILABLE**

9:00 a.m.–10:00 a.m.

Authors of in-person, even-numbered posters present for discussion

**Virtual Poster Session**

10:00 a.m.–11:00 a.m.

All authors present (online) in virtual poster session

Session Chairs: Alejandra Núñez de la Mora and Amanda Veile

Room: Diamond/Virtual

**After the Poster Session**

11:00 a.m.–4:00 p.m.

Posters available for independent viewing

4:00 p.m.–4:30 p.m.

Poster take-down

**In-person poster title, author(s), and number**

1. **“Me apretaba el pecho como si fuera una vaca”:  
Prácticas en la atención médica durante el  
parto y posparto en relación a la lactancia en  
madres primerizas en Veracruz, México**  
María José Palmeros de la Rosa, Nerli Paredes Ruvalcaba, Diego Galicia Pacheco, Masako Fujita, Alejandra Núñez de la Mora
2. **Striking health differences among Cuban refugee/migration waves to the United States**  
Margarita Hernandez, George Perry
3. **Adverse childhood experiences and diurnal cortisol rhythms in Black South African adults: A longitudinal, prospective analysis in Soweto & Johannesburg, South Africa**  
Jennifer Sun, Nokubonga Ndaba, Lindile Cele, Zamantsele Cebekhulu, Linda Richter, Shane Norris, Christopher Kuzawa, Andrew Wooyoung Kim
4. **Menarche age, but not menopausal age, predicts increased adiposity in women at mid-life**  
Daniel E. Brown, Lynnette Sievert, Sofiya Shreyer
5. **Systemic inflammation, gender minority stress, and resilience among transgender and gender diverse people in the United States**  
L. Zachary DuBois, Dee Jolly, Abiel Locke, Kelsi Kuehn, Debra A. Hope, Richard Mocarski, Robert-Paul Juster, Jae A. Puckett
6. **Age-dependent relationship between testosterone and mortality in men**  
Melissa I. Patton, Jeffrey Gassen, Eric C. Shattuck, Corey S. Sparks, Michael P. Muehlenbein

7. **Biological Age Estimation in Yakut Women of Siberia**  
Jacob Spencer Griffin, Preethi Saravanan, Mark V. Sorensen
8. **Birth weight across Daasanach communities in Northern Kenya and the effect of multiparity**  
K. Zhang, E. Hinz, S. Sadhir, L. Ford, A. McGrosky, R. Nzunza, D.R. Braun, E. Ndiema, A.Y. Rosinger, H. Pontzer
9. **Can the welfare hypothesis explain differences in adiposity among urban adults in Minatitlán (Mexico)? A biocultural study of the links between economic insecurity, dietary patterns, mental wellbeing, and obesity.**  
Genevieve Lola Stone, Alejandra Núñez-de la Mora, Mhairi Gibson, Angeliki Papadaki, Tania Griffin, Lucía Contreras
10. **Religion, stress, and psychosomatic symptoms at midlife.**  
Seth Dornisch, Genn Greenberg, Lynnette Leidy Sievert
11. **Do this, not that: Sources of pregnancy advice across cultures**  
Sharon Marie Young, Michelle Escasa-Dorne
12. **Food insecurity, breastfeeding, and childhood obesity in children at 3 and 5 years of age**  
Erica Tyler, Lawrence M Schell
13. **Grandchildren, but not children, aggravate menopausal symptoms**  
Sofiya Shreyer, Daniel Brown, Lynnette Sievert
14. **Rural Embodiment and Community Health (REACH) study: Disparities in gastrointestinal health and inflammation in older adults from three U.S. samples**  
T.J. Cepon-Robins, E.K. Mallott, C.J. Manthey-Pierce, K.L. Nemeth, I.C. Recca, A. Samsonov, A.B. Shing, M. Super, J.B. Thomas, S. Waimon, A. Zhang, T.E. Gildner
15. **Embodiment of water infrastructure: Gut microbiome characteristics and flooding in two U.S. communities**  
Carlye B Chaney, Theresa E Gildner, Tara J Cepon-Robins, Kiersten Grathwohl, Shan Wang, Jennifer Ong, Leena Kwak, Kaylaa Betts, Jade B Thomas, Katherine L Nemeth, Sophie Waimon, Angela Zhang, Alexander B Shing, Anna Samsonov, Elizabeth K Mallott
16. **Longitudinal analysis of cortisol changes during pubertal development in Indigenous Qom girls**  
Delaney JoLynn Glass, Jessica Godwin, Eleanna Bez, Saige Daniel, Susan Lipson, Peter Ellison, Margaret Corley, Claudia R Vaggia, Melanie A Martin
17. **Rural Embodiment and Community Health (REACH) Study: Social determinants of intestinal health among low-resource communities in the United States**  
A. Samsonov, T.E. Gildner, K.L. Nemeth, J.B. Thomas, S. Waimon, A.B. Shing, C. Chaney, E.K. Mallott, E.Y. Kim, M. Pfaff Nash, S.S. Urlacher, T.J. Cepon-Robins
18. **Rural Embodiment and Community Health Study (REACH): Associations between Water Source and Gut Microbiome Diversity in a Low-Resource U.S. Community**  
Shan A. Wang, Theresa E. Gildner, Tara J. Cepon-Robins, Carlye Chaney, Kiersten Grathwohl, Jennifer Ong, Leena Kwak, Kaylaa Betts, Jade B. Thomas, Katherine L. Nemeth, Sophie Waimon, Angela Zhang, Anna Samsonov, Alexander B. Shing, Elizabeth K. Mallott
19. **Seasonal variation in longitudinal growth among ethnic Tibetan infants living in the Nubri Valley, Nepal**  
Nidhi Subramanian, Geoff Childs, Elizabeth Quinn, E.A. Quinn
20. **“There was no break”: Labor induction leads to altered contraction patterns and higher anxiety in parturition**  
Julia Ann Mackessy, Alana Jocelyn Philogene, Amanda Logan Thompson
21. **Differences in salivary cortisol between exclusive and partial breastfeeding infants**  
Anna DeFeo Nicotra, Zhiqiao Huang, Rachael Anyim, Katherine Wander
22. **Dynamic traditional and store-bought food environments across a pandemic in the circumpolar north: “Remoteness was a blessing, but also a potential downfall”**  
Ruby Fried, Laura Eichelberger, Patricia Cochran, Micah Hahn
23. **Early puberty and polycystic ovary syndrome (PCOS): Preliminary investigation suggesting females affected by PCOS may experience menarche one year earlier than unaffected individuals**  
Courtney Manthey-Pierce, Tara Cepon-Robins, Anna Warrener
24. **Effects of physical activity patterns and barriers during pregnancy on health outcomes for women in high-income countries**  
Keri Tomechko, Srishti Sadhir, Herman Pontzer
25. **Household dietary diversity trends over time and market integration among the Indigenous Shuar of Amazonian Ecuador**  
Marcela Pfaff-Nash, Kate Pogue, Melissa A. Liebert, Lawrence S. Sugiyama, Felicia C. Madimenos, Tara J. Cepon-Robins, Theresa E. Gildner, Aaron D. Blackwell, J. Josh Snodgrass, Samuel S. Urlacher



26. **Investigating differences in the relationship between depression and metabolic biomarkers among Cambodian communities using the World Health Survey Plus (WHS+)**  
Micah Christopher Warner-Carey, Alicia Marie DeLouize, Nawi Ng, Srean Chhim, Nirmala Naidoo, Paul Kowal, J. Josh Snodgrass
27. **Lifecourse discrimination and mental health experiences among South Asian immigrant adults in the United States: A qualitative study**  
Lea Mira Raha, Andrew Wooyoung Kim
28. **Maternal trust: exploring support sources and decision-making among pregnant and postpartum individuals**  
Michelle Escasa-Dorne, Sharon Marie Young
29. **Nutrition and cognitive function in Amazonian horticulturalists**  
Sophia Balasubramanian, Thomas S. Kraft, Jacob Aronoff, Carrie Jenkins, Desirée Bogen, Daniel Eid Rodriguez, Bret Beheim, Daniel K. Cummings, Paul Hooper, Kenneth Buetow, Caleb E. Finch, Gregory S. Thomas, Andrei Irimia, Margaret Gatz, Jonathan Stieglitz, Michael D. Gurven, Hillard Kaplan, Benjamin C. Trumble
30. **Nutritional consequences of tea consumption under 5 years of age in Kilimanjaro, Tanzania**  
Samantha Gabriela Saca, Brenda N. Kitali, Megan Gauck, Febronia Shirima, Neema Ng'unda, Zawia Massawe, Beata Kavishe, Evaline Muro, Pamela Melendez-Noriega, Sierra Winter, Theresia Assenga, Ndetye Sawe, Irene Haule, Amin Athumani Uronu, Allutu Masokoto, Emmanuel Samky, Eline Ngomu, Irene Mushi, Jazila Feruzi, Salim Semvua, Iraseni Swai, Rune Philemon, Ireen Kiwelu, Blandina Mmbaga, Katherine Wander
31. **Paleoparasitology of a 12th-century Andean Pastoral Settlement from a One Health perspective—pastoralism and the role of humans as vectors for spreading zoonotic parasite infections**  
T.J. Tropeano, A. Rivera, S. Baitzel, T.E. Gildner
32. **Rural Embodiment and Community Health (REACH) study: Associations between sex and Immunoglobulin E levels among two low-resource communities within the United States**  
Jade B. Thomas, Tara J. Cepon-Robins, Samuel S. Urlacher, Sophie Waimon, Angela Zhang, Elizabeth K. Mallott, Katherine L. Nemeth, Alexander B. Shing, Carlye Chaney, Anna Samsonov, Kiersten Grathwohl, Elizabeth Y. Kim, Marcela Pfaff-Nash, Jennifer Ong, Shan Wang, Theresa Gildner
33. **Rural embodiment and community health (REACH) study: Associations between behavioral and demographic factors, fecal calprotectin, and IgE in under-resourced U.S. communities**  
Alexander B. Shing, Tara J. Cepon-Robins, Elizabeth K. Mallott, Samuel S. Urlacher, Jade B. Thomas, Katherine L. Nemeth, Sophie Waimon, Angela Zhang, Shan Wang, Carlye Chaney, Kiersten Grathwohl, Jennifer Ong, Anna Samsonov, Elizabeth Y. Kim, Theresa E. Gildner
34. **Relationships between long-term maternal psychosocial stress, gut microbiota, and infant growth in Cebu, Philippines**  
Rebecca Cai Ting Wu, Sahana Kuthyar, Delia Carba, Morgan Kathleen Hoke, Amanda Logan Thompson, Thomas McDade, Christopher Kuzawa
35. **Why does obesity prevalence moderate the relationship between fat stigma and allostatic load? A follow-up study examining the role of emotional support and coping strategies**  
Jennifer Cullin
36. **Factors predicting the need for food amongst residents of Utila, Honduras during the COVID-19 pandemic**  
Madison Hönig, Caroline Owens, Angela R Garcia, Jessica K Hlay, Carolyn Hodges-Simeon, Keri V Brondo, Edoardo Atúnez, Andrea Izaguirre, Antonella Rivera, Pamela Ortega, Aaron D Blackwell
37. **Increased intake of alpha-linolenic acid is associated with higher exam scores**  
Jazmin Vilches, Jonah Christensen, Joanna Gautney, Julian Chan, David Aguilar-Alvarez
38. **Intersectional implications for the mediating role of emotional support in chronic pain disparities in the United States**  
Dee Jolly, Abiel K. Locke, Ariella R. Tabaac, L. Zachary DuBois
39. **Is depression linked to cognitive impairment in a small-scale society?**  
Yoann Buoro, Daniel Eid Rodriguez, Daniel K. Cummings, Paul L. Hooper, Andrei Irimia, Caleb E. Finch, Benjamin C. Trumble, Jonathan Stieglitz, Hillard Kaplan, Margaret Gatz, Michael Gurven
40. **Prevalence of human pathogens in Ixodes scapularis ticks of Southern Tier, NY**  
Janell Kayla Atkins, Jessica Tampori, Vincent Lam, Jack Hirsch, Louis Michael Glickman, Robert Johnson, John Macher, Ralph M. Garruto, Michel Shamooun-Pour
41. **Congenital Heart Disease: A Silent, but Preventable Cause of Infant Mortality**  
Humberto Camara-Conde, Ely Sanchez-Felix, Joan Johnson-Herrera, Nina Mendez-Dominguez
43. **Social and ecological determinants of Helicobacter pylori infection in the Philippines**  
Cassie C. Lee, Aaron A. Miller, Thomas W. McDade
44. **An exploratory analysis of U.S. fathers' routine direct infant contact in relation to family dynamics and paternal hormones**

- Lauren E. Bell, Mallika S. Sarma, Patty X. Kuo, Lee T. Gettler
45. **The Behavioral Surveillance Research Survey (BESURE): Analyzing disparities in the HIV care continuum and outcomes among same gender loving men in Baltimore**  
Irving Ramirez Sotero, Anne Sawyer, Danielle German
  46. **Participant and family perspectives on deep brain stimulation for traumatic brain injury symptoms: a qualitative approach**  
Linda M. Gerber, Kaiulani S. Shulman, Megan S. Wright, Nicholas D. Schiff, Joseph J. Fins
  47. **Brown adipose tissue among New York City residents and evolutionary mismatch**  
Stephanie Levy, Shelby Pirtle, Ruthbernick Bastien, Jahnae Vernon, Kandra Cruz
  48. **Possible mechanisms underlying associations between exposure to phthalates and gestational age at birth – a rapid review**  
Jordan T. Wright, Elizabeth M. Miller
  49. **Biosocial Belonging: Friendship quality, loneliness, and HPA-axis regulation of pro-inflammatory immune response among adolescents**  
Keegan C. Krause, Aaron A. Miller, Tamara Lorenz, Nathalie Michels, Matteo Giletta, Thomas W. McDade
  50. **Cross-population analysis of milk anti-inflammatory proteins by maternal factors**  
Elizabeth M Miller
  51. **Examining multimorbidities of poor kidney function in the Amazonian Shuar of Ecuador**  
Hannah N. Cantrell, Eliza Hallett, Melissa A. Liebert, Tyler M. Barrett, Tara J. Cepon Robins, Theresa E. Gildner, Samuel S. Urlacher, Felicia C. Madimenos, Lawrence S. Sugiyama, James J. Snodgrass
  52. **Association between water sharing network positions and physical and mental health outcomes among Daasanach pastoralists in northern Kenya**  
Leslie Brianne Ford, Matthew Douglass, Faith Wambua, Rosemary Nzunza, Emmanuel Ndiema, Herman Pontzer, Asher Rosinger
  53. **Links between paternal testosterone and child well-being among BaYaka foragers in the Congo Basin**  
Noel Shabu, Adam H. Boyette, Valchy Miegakanda, Mallika S. Sarma, Sheina Lew-Levy, Lee T. Gettler
  54. **The constrained model of total energy expenditure (CMTEE) and its associations with physical activity and nutritional status: a systematic review.**  
Charlotte Macey, Guillermo Zorrilla-Revilla, Danny Longman, Maria Inês Varela-Silva
  55. **An investigation of relaxin-1 and relaxin-2 in human milk**  
Alaina Schneider, E.A. Quinn
  56. **Siguiendo la huella calórica: prevalencia de sobrepeso y obesidad en niñas, niños y adolescentes rurales a lo largo de un gradiente de distancia al mercado en diez comunidades milperas del Cofre de Perote en Veracruz, México**  
Anahí Ruderman, Diego Galicia-Pacheco, Andrea Concepción Valerio-Mora, Sebastián Cano-Vargas, Jimena Ceja-Pérez, Karla Ivanna Hernández-Gámiz, Paula Monguí, Simoneta Negrete-Yankelevich, Alejandra Núñez-de la Mora
  57. **Gut microbial community structure and diversity varies by CREBRF genotype among Samoan infants**  
S. Oyama, K.J. Arslanian, M.L. Savo Sardaro, R.L. Duckham, E.E. Kershaw, A.N. Wood, U.T. Fidow, T. Naseri, M.S. Reupena, K.R. Amato, N.L. Hawley
  58. **Hair hormone assessment: Inter-relationships across biomarkers**  
Allissa L. Van Steenis, Wen Wang, Brandon L. Smith, Elizabeth A. Shirtcliff
  59. **Fatherhood Schemas and Their Relationship with Parenting Behaviors, Bonding and Psychobiology: An Exploratory Analysis with U.S. Fathers**  
Elsa Marie Mueller-Filipas, Mallika S. Sarma, Patty X. Kuo, Lee T. Gettler
  60. **The Relationship between Diet Composition and Dual Burden of Under and Over Nutrition in the Ecuadorian Amazon**  
Preethi Saravanan, Erin Hosein, Mark Sorensen
  61. **Changes in physical activity and sedentary time from early to middle childhood and their associations with fat mass and body fat percentage**  
Roberta Gomez Diaz Barreiro, Mia Q Peng, Dana Dabelea, Andrew Leroux, Lynn Dexter, Kristen Autret, Traci A Bekelman
  62. **Do carriers of the attention deficit/hyperactivity disorder associated 7-repeat allele of the dopamine receptor D4 gene have improved nutritional status among semi-nomadic Kenyan Samburu adolescents?**  
AE Kunkle, CE Hilton, OC Olungah, B Straight, DTA Eisenberg
  63. **Effect of iris pigmentation on ability to see in low light conditions after a short-term dark adaption period among individuals with European ancestry in the U.K.**  
Faith Erin Cain, Kyoko Yamaguchi



64. **Can iButtons be used to quantify participants' BAT thermogenesis during everyday life?**  
Ruthbernick Bastien, Shelby Pirtle, Kandra Cruz, Jahnae Vernon, Stephanie B Levy
65. **Measurement of intestinal fatty-acid binding protein (I-FABP), a marker of environmental enteric dysfunction, in dried blood spots using ELISA**  
Elizabeth Y. Kim, Thanmayi Parasu, Srihan Somepalli, Sai S. Sagireddy, Tiffany F. Luan, Kamila Montenegro, Jeffrey Gassen, Tomasz J. Nowak, Sally P. Weaver, Erich Baker, Michael Muehlenbein, Samuel Urlacher
66. **Rural Embodiment and Community Health Study (REACH): Body composition association with pro-inflammatory markers in low-resource US communities**  
Sophie Lynn Waimon, Tara J. Cepon-Robins, Elizabeth K. Mallott, Katherine L. Nemeth, Jade B. Thomas, Angela Zhang, Alexander B. Shing, Carlye Chaney, Anna Samsonov, Samuel S. Urlacher, Theresa E. Gildner
67. **Stress, inflammation, and immune activation: Insights from Dassanach semi-nomadic pastoralists of Northern Kenya**  
Hannah C. Jacobson, Amanda McGrosky, Srishti Sadhir, Leslie Ford, Marcela Pfaff, Lizzy Kim, Rosemary Nzunza, Matt Douglass, David R. Braun, Emmanuel Ndiema, Sam Urlacher, Herman Pontzer, Asher Y. Rosinger
68. **Association Between the Lumbar Subcutaneous Fat Tissue Thickness and the Presence of Hernias in Adults with Non-Traumatic Low Back Pain**  
Oswaldo Huchim-Mendez, Jorge A Poot-Franco, Anuar Mena-Balan, Adrian Perez-Navarrete, Hugo Azcorra-Perez, Nina Mendez
69. **Adolescent Subsequent Pregnancies and Inter-Pregnancies Period in Yucatan, Mexico Between 2016 and 2020: Social & Economic Aspects.**  
Ana C. Canto-Costal, Kassandra D. Santos-Zaldivar, Victor A. Villasuso-Alcocer, Hugo Azcorra-Perez, Nina Mendez-Dominguez
70. **Body size and risk of death from tuberculosis in early 20th century Alaska**  
Taylor P. van Doren, Lauren E. Steele, Emma Tinker-Fortel, Lisa Sattenspiel
71. **Demographic predictors of circulating Epstein-Barr virus antibody levels in Amazonian Ecuador**  
T.M. Barrett, M.A. Liebert, G.N. Eick, J.G. Ridgeway-Diaz, F.C. Madimenos, A.D. Blackwell, T.J. Cepon-Robins, S.S. Urlacher, L.S. Sugiyama, J.J. Snodgrass
72. **Sociodemographic Characteristics of Patients Hospitalizations due to Urolithiasis in Public Hospitals in Yucatan, Mexico.**  
Erick Antonio Rochel-Perez, Mario Arturo Martin-Dorantes, Andrea Rochel-Perez, Nina Mendez-Dominguez
73. **Validation of stability in 30-year-old frozen urine samples**  
Anwasha Pan, Madison Saunders, Darryl J Holman
74. **Socio-cultural factors affecting Breastfeeding in Northern Mexico: Insufficiency and Dissatisfaction**  
Diana Bueno Gutiérrez, Fernanda Tejada López, Ana Lilia Armendariz Anguiano, Glenda Diaz Ramirez, Ileana De Anda
75. **Cuando el acceso no quita el dolor: barreras en la atención de la dismenorrea en mujeres mexicanas urbanas de clase media-alta.**  
Martha Alicia Ruiz Velasco Muñoz, Florencia Peña Saint Martin, Alejandra Núñez de la Mora
76. **Water insecurity and stress: the lived experience of unreliable water services in Mexico City**  
Paloma Soledad Contreras, Abigail Bigham
77. **Examining relationships between the presence of E. coli, diarrhea, endotoxin core antibodies, and longitudinal growth among children in the Galapagos**  
Morgan Kathleen Hoke, Enrique Teran, Jill R. Stewart, Amanda L. Thompson
78. **Moving beyond redlining: segregation, health and the built environment in three Phoenix neighborhoods**  
Audrey Dervarics, Robin G. Nelson, Benjamin C. Trumble
79. **Assessing Stress Physiology in Adolescent Girls through Biomarkers and Ethnography**  
Lukas James Daniels, K P Garza
80. **Changes in stress axis and metabolic energy patterns from pre- to post-menarche in a group of Mayan girls- A preliminary analysis**  
Amanda Rowlands, Magda Alexandra Trujillo-Jiménez, Katrina G. Salvante, Pablo A. Nepomnaschy
81. **Human milk and cannabis: The Lactation and Cannabis (LAC) Study**  
Courtney L. Meehan
82. **Analysis of methods for recruiting participants and collecting dried blood spots in a predominantly African American sample in Detroit, Michigan.**  
Julianna Perez, Amber L. Pearson, Teresa H. Horton



83. **Regulatory T-cells are positively correlated with placental extra-cellular vesicles during pregnancy**  
Delaney Anne Knorr, Kyle Wiley, Yazhen Zhu, Hsiang-Rong Tseng, Molly Fox
84. **Biological mechanisms of embodiment: the impacts of stress on salivary CRP variability in a Nigerian population**  
Taiye Winful, Modupe E. Sorunke, Jada Benn Torres
85. **Is it really a handicap? Testosterone is not just immunosuppressive but rather facilitates beneficial immunological tolerance**  
Aaron D. Blackwell
86. **Positive coping strategies and resilience to undocumented status: Evaluating the mental health effects of a peer mentoring program on undocumented young adults in the San Francisco Bay Area, California**  
Frida Calvo, Andrew Kim
87. **Understanding the impact of water fluoride levels and *Salvadora persica* toothbrush tree use on oral health outcomes among Daasanach communities in Northern Kenya**  
Tiffany-Chrissy Mbeng, Faith Wambua, Amanda McGrosky, Hannah Jacobson, Elena Hinz, Alison Sherwood, Lilian Baker, Rosemary Nzunza, David Braun, Emmanuel Ndiema, Herman Pontzer, Asher Rosinger
88. **Rural Embodiment and Community Health Study (REACH): Trade-offs between Immunoglobulin E levels and growth in a preliminary sample of children in a low-resource rural Mississippi community**  
Katherine L. Nemeth, Tara J. Cepon-Robins, Samuel S. Urlacher, Elizabeth K. Mallott, Jade B. Thomas, Sophie Waimon, Isabella Recca, Angela Zhang, Marcela Pfaff-Nash, Elizabeth Y. Kim, Theresa E. Gildner
89. **Minimal and delayed age-related increase of arterial stiffness among Tsimane forager-horticulturalists**  
Tianyu Cao, Edhitt Cortez Linares, Michael Miyamoto, Daniel Cummings, Benjamin Trumble, Jonathan Stieglitz, Randall Thompson, Hillard Kaplan, Gregory Thomas, Daniel Duprez, David Jacobs, Michael Gurven
90. **Allometry of the brain, brain regions and body size among Tsimane and Mosesten Native South Americans**  
Hillard Kaplan, Jacob Aronoff, Paul Hooper, Daniel Cummings, Jonathan Stieglitz, Benjamin Trumble, Michael Gurven, Gregory Thomas, Daniel Eid Rodriguez, Caleb Finch, Margaret Gatz, Nikhil Chaudhari, Andrei Irimia
91. **Incongruences between planned and actual infant-feeding practices: Experiences with breastfeeding and introduction of commercial milk formula among first-time mothers in Veracruz, Mexico**  
Nerli Paredes-Ruvalcaba, Maria Jose Palmeros-de la Rosa, Diego Galicia-Pacheco, Diana Bueno-Gutiérrez, Alejandra Núñez-de la Mora, Masako Fujita
92. **Th1/Th2 cytokine ratio increases with age but decreases with E2 levels.**  
Tomasz J. Nowak, Jeffrey Gassen, Alexandira D. Henderson, Sally P. Weaver, Erich J. Baker, Michael P. Muehlenbein
93. **Cardiometabolic health and genomic methylation in P'urépecha communities**  
Isaura Cruz
94. **Brucellosis a possible link to Increased Stillbirths: A Population based Study from Malta, 1919–1954**  
Lianne Tripp, Larry Sawchuk
95. **The relationship between maternal stress and the immune specificity of milk**  
Aditi Sharma, Katherine Wander, Ananyaa Asthana, Alli Harkenrider, Natalie Mourou, Masako Fujita
96. **Refugee health and physiological profiles in transitional settlements in Serbia and Kenya: Comparative evidence for effects of gender and social support**  
Lee T. Gettler, Jelena Jankovic-Rankovic, Rieti G. Gengo, Geeta N. Eick, Marcela Pfaff Nash, Ewoton Newton Arumah, Adan Mohammed Boru, Ahmed Mohamed Said, Samuel S. Urlacher, Jerrold S. Meyer, J. Josh Snodgrass, Rahul C. Oka
97. **Oxytocin: a mediator of life history in the Tsimane of lowland Bolivia?**  
Abigail Colby, Charlotte Debras, Michael Gurven, Benjamin Trumble, Adrian Jaeggi
98. **Clustering of metabolic risk factors and relationships to measures of socioeconomic status in Tunisia**  
A. Wisniewski, A.L. Thompson, A.M. DeLouize, N. Naidoo, V. Jeyaseelan, J.J. Snodgrass
99. **Bayesian networks approach to dyadic trait data from Namibian pastoralists**  
Sean P. Prall, Robert S. Walker
100. **Complex effects of market integration on children's diets and physical activity in Vanuatu**  
Jenna Seafuse, Megan Gauck, Daniela Kraemer, Krishna Kotra, Eddy Kiel, Philippe Molivakarua, Brenda Wolang, Mabetrisha Silas, Angela Banga, Clancyika Mala, Diego Wabak, Ian Wallace, Mary Towner, Katherine Wander, Siobhan Mattison

101. **Early life adversity is related to different ex vivo inflammatory responses in older men and women**  
Robert L. Tennyson, Christopher G. Engeland, Erin E. Harrington, Dakota D. Witzel, George M. Slavich, Jennifer E. Graham-Engeland
102. **Understanding stress-adapted cognition in childhood: Implications of early life stress on executive function**  
Emily H. Barron, Christopher W. Kuzawa, Cope Feurer, Katie L. Burkhouse, Jennifer H. Suor
103. **Heat stress and hydration status among Daasanach semi-nomadic pastoralists in northern Kenya**  
Lilian June Baker, Hannah Jacobson, Amanda McGrosky, Elena Hinz, Faith Wambua, Alison Sherwood, Tiffany-Chrissy Mbeng, Rosemary Nzunza, David R Braun, Emmanuel Ndiema, Herman Pontzer, Asher Yoel Rosinger
104. **Island and anemia influence COVID-19 risk at time of delivery in Vanuatu (South Pacific)**  
Megan Gauck, Katherine Wander, Sam Mahit, Kelsey Dancause
105. **Accelerated Epigenetic Aging among a Diverse Cohort of Sexual and Gender Minority Young Adults is Driven by HIV Status more than Systemic Inflammation**  
James K. Gibb, Brian Mustanski, Joshua M. Schrock, Richard T. D'Aquila, Thomas W. McDade
106. **Inflammaging among the Tsimane and Mosen of lowland Bolivia**  
Jacob E. Aronoff, Carrie L. Jenkins, Angela R. Garcia, Bret A. Beheim, Daniel E. Rodriguez, Daniel K. Cummings, Thomas S. Kraft, Paul L. Hooper, Kenneth Buetow, Caleb E. Finch, Jonathan Steiglitz, Michael D. Gurven, Hillard Kaplan, Benjamin C. Trumble
107. **High survival despite widespread COVID-19 infection among indigenous Tsimane and Mosen of Bolivia**  
Michael Gurven, Paul Hooper, Daniel Eid Rodriguez, Maguin Gutierrez Cayuba, Juan Copajira, Lucia Inchauste, Dan Cummings, Stéphan Priet, Xavier de Lamballerie, David Michalik, Thomas Kraft, Hillard Kaplan, Jonathan Stieglitz, Benjamin Trumble
108. **Maternal postnatal stress and the human milk microbiome: the Mother-Infant Microbiomes, Behavior, and Ecology Study (MIMBES)**  
Elizabeth A. Holdsworth, Janet E. Williams, Ryan M. Pace, Maria Gartstein, Mark A. McGuire, Michelle K. McGuire, Courtney L. Meehan
109. **Biolinguistic anthropology: a proposed expansion of the biocultural synthesis**  
J.A. DeCaro, S.E. Pritzker, J.R. Pederson
110. **Risk perceptions of COVID-19 infection risk and their determinants among adults in metropolitan Johannesburg, South Africa: a mixed-methods study**  
Waverly Choy, Nokubonga Ndaba, Lindile Cele, Andrew Wooyoung Kim
111. **Energetic demands of twin pregnancies**  
Amanda McGrosky, Jaye Boissiere, Sarah Dotters-Katz, Herman Pontzer
112. **The Value of Publicly Engaged Podcasting in Human Biology**  
Christopher Lynn, Cara Ocobock
113. **Discordance between preferred and actual complementary foods among rural Quechua mothers**  
Sophie Emily Mbongo, Yu Chung, Rocio Chávez Cabello, Violeta Rojas Bravos, Amanda Veile
114. **Predictors and Outcomes of Migration in Rural and Urban Peruvian Indigenous Women**  
Gracie Mae Cherye Turner, Anahita Amirpour, Rocio Chavez Cabello, Violeta Rojas Bravo, Amanda Veile.

#### Virtual poster title, author(s), and number

1. **Are long-term maternal stressors and associated coping mechanisms reflected in human milk cortisol?**  
Rachael Anyim, Zhiqiao Huang, Anna Nicotra, Katherine Wander
2. **Association between the asylum process, blood pressure, and cortisol levels among refugees in Serbia**  
Jelena Jankovic-Rankovic, Rahul C Oka, Jerrold S Meyer, Lee T Gettler
3. **Clinical presentation and immunological response associated with critical lower respiratory tract illness in Argentine infants**  
Benjamin Michael Greer, Mauricio Caballero, Julia Dvorkin, Emiliano Sosa, Achsa Dorsey
4. **Intersexual preferences for body parameters and actual sexual dimorphism: a cross-population study**  
Victoria V. Rostovtseva, Marina L. Butovskaya, Anna A. Mezentseva
5. **Modelling the distribution of anthropometrics: Gaussian and LMS distributions, and Q-Q plots**  
Virginia J. Vitzthum, Jonathan Thornburg
6. **Body Composition and Physical Activity of Baduy Female (Aged 6–28 Years)**



- Eneng Nunuz Rohmatullayaly, Putri Dwi Amalia Robbani, Hanifa Hanan, Elda Irma Jeanne Joice Kawulur
7. **Serum biomarker levels and disease duration in post-WWII Guam amyotrophic lateral sclerosis: A survival analysis**  
Risana Nizam Chowdhury, Ralph M. Garruto, Katherine Wander
  8. **The effects of psychosocial stress and salivary cortisol on breast milk fat and energy**  
Zhiqiao Huang, Anna DeFeo Nicotra, Rachael N Anyim, Katherine Wander
  9. **Cardiovascular Risk Profile in a population of young women from Primary Health Care in the Brazilian Amazon–Multicentric LapARC Study**  
Randerson José de Araujo, LIGIA A FILGUEIRAS, Elizabeth Silaid Muxfeldt, Victor Saymon Nascimento Ruberto, Bruno Antônio Gomes Silva, Ana Gabriela de Sousa Costa
  10. **Depression Screening and the prevalence of Cardiovascular Risk Factors in young adults in Primary Health Care in the Brazilian Amazon–Multicentric LapARC Study**  
Randerson José de Araujo, Ligia Amaral Filgueiras, Elizabeth Silaid Muxfeldt, Maria Juliana Martins de Souza, Clara Serique Massaranduba e Silva, Vivian Carvalho Avelino, João Paulo Monteiro Soares
  11. **Uncovering the complexity of mental health needs in the Arab community in Canada: the CAN-HEAL study**  
Sarah Elshahat, Tina Moffat, Zena Shamli Oghli, Sherry Ing, Yumnah Jafri, Nour Kanaa, Salima Zabian, Amal Shah, Hussyin Jelal, Jinat Al-Soufi, Kabir Dhawan, Tamima Amir, Toussaint Iratomoye, Mindy Baroody, Madison Coutinho, Abu Bakar Butt, Affaan Sohail, Zhihui Xiao, Nina Klioueva, Rhea Varguise, Raiyan Rubab, David Walji, Aarti Patel, Roaa Hussam, Ayushka Tiwary, Emma Donnelly, Shyal Ahmed, Sarah Abdellateef, Ryyan Ibrahim, Paige Hopkinson, Yoohyun Park, Saranavi Sathiyalingam, Surabie Sivanendran, Adib Syed
  12. **Digital Dilemma: Understanding Smartphone Addiction Among the Young Adults in Bangladesh – A Qualitative Study**  
Zubair Ahmed Ratan, Andrew Wooyoung Kim, Anne-Maree Parrish, Mohammad Saud Alotaibi, Md Mustafizur Rahman, Hassan Hosseinzadeh
  13. **Congenital syphilis in Mexico between 2019–2022: A recent note from an old well-known health problem.**  
Mario Arturo Martin-Dorantes, Erick Antonio Rochel-Perez, Xavier RiosCovian-Molina, Andrea Rochel-Perez, Nina Mendez-Dominguez
  14. **Impact of the Multidisciplinary Team on Humanization in Childhood Palliative Care**  
Daniele Carvalho Miller, João Batista Chaves Silva, Ligia Amaral Filgueiras
  15. **Anthropometric Survey of School-Aged Children in the Yucatan**  
Thomas Leatherman, Juan Carlos Salazar-Rendón, C. Marjorie Aelion, Hugo Santiago Azcorra Pérez
  16. **Psychosocial stress, sleep outcomes, and adult suicidal ideation during the COVID-19 pandemic in South Africa: A cross-sectional analysis**  
Andrew Wooyoung Kim.

11:00 a.m.–1:00 p.m. LUNCH BREAK

11:30 a.m.–12:30 p.m. BREAKOUT SESSION

Raymond Pearl: Considering an Uncomfortable Legacy of Scientific Racism

Chairs: Josh Snodgrass, Amanda Veile

Room: Gold IV

11:30 a.m.–12:45 p.m. AJHB EDITORIAL BOARD MEETING

Room: Georgia

1:00 p.m.–4:00 p.m. PLENARY SESSION

Chairs: L. Zachary DuBois and Alexandra Brewis

Room: Gold IV

### “Gender/Sex: Unsettling Binaries in Human Biology”

Categories of sex as a binary construct have always been a core organizing and analytic framework of human biology, evident in almost all research on human growth, development, disease, and reproduction. It is central to almost any data collection, how analyses are configured, and hence how findings are then interpreted and applied. Gender is sometimes distinguished from sex, as a framework to identify and

understand human experience, social interaction, and identity but gender/sex entanglement remains under-examined. Moreover, new theoretical imaginings and renewed debates happening primarily outside of our discipline are further exposing the limitations posed by rigid binary conceptualizations of these entangled constructs, and in ways that challenge fundamentally how we should operationally and ethically construct, conduct, and present research. How we do our science in this regard greatly matters: the very nature of these categories and their function as proxies for biological systems and mechanisms are front-and-center in several highly contentious sociopolitical debates. These are neither abstract nor narrowly academic arguments but require rigorous engagement because they are tied to implementation of social policy around human biology—with impacts on the lives of many millions. For example, binary constructs of biological sex are currently being invoked in an array of contexts (including the US and Europe) to limit the bodily autonomy of women, transgender and nonbinary people, to justify legal policies enforcing a strict sex binary in competitive sports, and to limit where and for whom sanitation is safe and accessible.

Given the pressing need to advance how human gender, sex, and gender/sex are engaged within human biology, this session aims to foreground insights from scholars from adjacent disciplines to inspire further discussion and progress in our own field moving forward. This plenary session brings together a set of leading interdisciplinary scholars who are at the forefront of this necessary scrutiny around the use of binary categories to do the work of understanding sex and sex-linked biologies. We have intentionally brought in speakers from outside of HBA. The mix of speakers will address three key goals: (a) grapple with emerging debates regarding the ways these constructs are defined and used in human biological research and beyond; (b) present alternative models and methods for how categories of sex, gender, and gender identity can be more effectively operationalized within our discipline; and (c) imagine when and how an integrated gender/sex might move the field of human biology forward while centering those our research intends to serve.

1:00 p.m.–1:05 p.m.

**Brief introductory remarks**

L. Zachary DuBois and Alexandra Brewis

1:05 p.m.–1:15 p.m.

**Defining and deploying gender/sex terms in human biology: Where are we?**

Cindi SturtzSreetharan, Alexandra Brewis

1:15 p.m.–1:40 p.m.

**Frameworks for the integration of gender/sex in biomedical and human biological research.**

Stacey A Ritz

1:40 p.m.–2:05 p.m.

**Gender/sex entanglement: conceptual, methodological and analytical insights from behavioural neuroendocrinology.**

Annie Duchesne

2:05 p.m.–2:20 p.m.

**COFFEE BREAK**

2:20 p.m.–2:45 p.m.

**Recreating the binary: the bio-logics of sex in “sex testing” regulations.**

Katrina Karkazis

2:45 p.m.–3:10 p.m.

**Embodied Stress Processes and Resilience Pathways among LGBTQ+ People**

Robert-Paul Juster, L. Zachary DuBois

3:10 p.m.–3:35 p.m.

**Mining the gaps: Integrating observational and biological data in the study of gender and sexual diversity**

Lisa Diamond

3:35 p.m.–4:00 p.m.

**Gender\*Sex Plenary Discussion**

Chair: Claudia Vallengia

**4:00 p.m.–5:00 p.m.****BREAK**

5:00 p.m.–6:00 p.m.

**PEARL MEMORIAL LECTURE****(Re)Shaping identity: from points on a linear scale to irregular shapes on a multi-dimensional landscape.**

Anne Fausto-Sterling

Room: Gold IV

(Continues)



**6:30 p.m.–9:30 p.m. WELCOME RECEPTION**

Room: Gold III

**THURSDAY, March 21, 2024****7:30 a.m.–8:30 a.m. REGISTRATION**

Room: Gold Foyer

**8:00 a.m.–9:30 a.m. PODIUM A****Linking Psychosocial Factors to Health and Well-Being**

Chair: Stephanie B. Levy

Room: Gold IV

**8:00 a.m.–8:15 a.m. Engagement in traditional cultural activities as a strategy for mitigating the enduring physical health impacts of historical trauma events for American Indians and Alaska Natives.**

Rachel Elizabeth Wilbur, Amanda Logan Thompson

**8:15 a.m.–8:30 a.m. La salud creativa como herramienta biocultural para mejorar la salud y el bienestar: estudio piloto en una comunidad maya-yucateca de México.** Maria Inês Varela-Silva, Maria Candelaria May Novelo, Samantha Sánchez, Maria Teresa Castillo-Burguete, Deira Jiménez-Balam, Luis Erasto Cahun, Marcelo Jimenez, Hugo Azcorra**8:30 a.m.–8:45 a.m. Psychosocial stress during the COVID-19 pandemic, adult blood pressure, and hypertension risk in Soweto & Johannesburg, South Africa: A cross-sectional analysis.** Mo Mao, Nokubonga Ndaba, Lindile Cele, Zamantsele Cebekhulu, Shane Norris, Andrew Wooyoung Kim**8:45 a.m.–9:00 a.m. Physical-psychiatric disease comorbidities among patients with COVID-19 at a specialised psychiatric hospital in Krugersdorp, South Africa: A retrospective record review.** Someleze Swana, Andrew Wooyoung Kim, Ugasvaree Subramaney**9:00 a.m.–9:15 a.m. Behavioral disease avoidance during COVID: Relationships among SARS-CoV-2 infection risk, stress physiology, mood and subjective distress, and cytokines levels.** Michael Muehlenbein, Jeffrey Gassen, Tomasz Nowak, Edward Thum, Sally Weaver, Erich Baker**9:15 a.m.–9:30 a.m. HIV-related stigma and neurocognitive function among Hispanic and non-Hispanic White older people living with HIV.** Eric E Griffith, Mariana Cherner, Robert K Heaton, Maria J Marquine**9:30 a.m.–9:45 a.m. COFFEE BREAK****9:45 a.m.–11:15 a.m. PODIUM B****Understanding Human Biocultural Variation and Health**

Session Chair: Sharon Williams

Room: Gold IV

**9:45 a.m.–10:00 a.m. High child mortality among hunter-gatherers helps to resolve the population growth paradox.** Karen L Kramer, Joseph Hackman**10:00 a.m.–10:15 a.m. Growing across cultures: applying a causal model of human growth to explore variability in growth trajectories and potential mechanisms.** Catalina I. Fernandez, Caissa Revilla-Minaya, John A. Bunce**10:15 a.m.–10:30 a.m. One healthy body size in a diverse world? Examining BMI's applicability, limitations, and legacies among the Shuar of Ecuador.** Madeleine Getz, Melissa Liebert, Felicia Madimenos, Samuel Urlacher, Joshua Schrock, Theresa Gildner, Christopher Harrington, Alicia DeLouize, Tara Cepon-Robins, Aaron Blackwell, Richard Bribiescas, Dorsa Amir, Josh Snodgrass, Lawrence Sugiyama**10:30 a.m.–10:45 a.m. Program of genomic reference and biobank of the Argentinean Population: current status and future prospects.** Rolando Gonzalez-Jose, PoblAr Team**10:45 a.m.–11:00 a.m. Evaluating the convergent and predictive validity of epigenetic age acceleration measured from common epigenetic clocks in Cebu, Philippines.** Elijah Watson, Thomas McDade, Calen Ryan, Nanette Lee, Julia MacIsaac, Kristy Dever, Parmida Atashzay, Michael Kobor, Christopher Kuzawa**11:00 a.m.–11:15 a.m. Participación comunitaria en la construcción de consentimiento y asentimiento informados: una experiencia con representantes de comunidades nahua y nuntajiyi del sur de Veracruz, México.** Aimé López-González, Alejandra Núñez-de la Mora



11:15 a.m.–12:45 p.m.	<b>LUNCH BREAK</b>
11:30 a.m.–12:30 p.m.	<b>STUDENT BREAKOUT SESSION</b> “From Submission to Success: A Conversation about Navigating Early Career Publications” Session Chairs: Sofiya Shreyer and Emily Hart Barron Room: Gold IV
12:45 p.m.–2:10 p.m.	<b>PODIUM C</b> <b>Developmental Processes from Gestation through Adolescence (Flash Talks)</b> Chair: Zaneta Thayer Room: Gold IV
12:45 p.m.–12:52 p.m.	<b>Regulatory T-cell levels in pregnancy are correlated with mothers' early-life microbial exposures.</b> Molly M Fox, Adiba Hassan, Kyle S Wiley, Dayoon Kwon, Delaney A Knorr
12:52 p.m.–12:59 p.m.	<b>Maternal metabolic limits in endurance athletes during pregnancy.</b> Srishti Sadhir, Amanda McGrosky, Zane Swanson, Keri Tomechko, Herman Pontzer
12:59 p.m.–1:06 p.m.	<b>Associations between stature and birth outcomes in a United States home birthing population.</b> Meredith Aulds, Marit Bovbjerg, Melissa Cheyney, Amanda Veile
1:06 p.m.–1:13 p.m.	<b>Association between parity and bone mineral density in NHANES.</b> Cristina Gildee, Patricia Ann Kramer
1:13 p.m.–1:20 p.m.	<b>Maternal dietary pattern and milk and infant fecal microbiome composition in Samoan mother-infant dyads 2–4 months postpartum.</b> Katherine Daiy, Victoria Bertacchi, Courtney Choy, Kima Savusa, Lupesina Vesi, Aniva Reupena, Jyothi Abraham, Take Naseri, Anolosa Magele, Janet Williams, Mark A McGuire, Michelle K McGuire, Nicola Hawley
1:20 p.m.–1:27 p.m.	<b>The human milk microbiome is differentially associated with maternal nutrition and infant growth across a global rural–urban gradient: preliminary findings from the IMiC Consortium.</b> Melissa B Manus, Kelsey Fehr, Mark DeBoer, Joann M McDermid, Patrick Kolsteren, Trenton Dailey-Chwalibóg, Laeticia C Toe, Yasir Shafiq, Fyezah Jehan, Ameer Muhammad, Natalie Rodriguez, Theo J Moraes, Piush Mandhane, Stuart Turvey, Elinor Simons, Padmaja Subbarao, Liat Shenhav, Meghan B Azad
1:27 p.m.–1:34 p.m.	<b>Birthweight, growth status and cardiometabolic health in children of a rural Maya community from Yucatan, Mexico.</b> Hugo Azcorra, Julio Cesar Lara-Riegos, Juan Carlos Salazar-Rendón, Valery Saravia-Herrera
1:34 p.m.–1:41 p.m.	<b>Maternal and Perinatal and Socioenvironmental Predictors of the Incidence of Congenital Heart Diseases at Birth in Yucatan, Mexico.</b> Kassandra Desire Santos-Zaldivar, Claudia Guadalupe Chi-Mendez, Mario Armando Azuela-Morales, Guadalupe Isabel Flores-Lopez, Ely Sanchez-Felix, Joan Jhonson-Herrera, Nina Mendez
1:41 p.m.–1:48 p.m.	<b>Population differences in physical activity between the Tsimane and US are established early in life.</b> Daniel K Cummings, Jonathan Stieglitz, Benjamin C Trumble, Daniel Eid Rodriguez, Paul Hooper, Michael Gurven, Hillard Kaplan
1:48 p.m.–1:55 p.m.	<b>Environmental heat stress more strongly impacts children versus adults among Daasanach semi-nomadic pastoralists in northern Kenya.</b> Elena Hinz, Alison Sherwood, Amanda McGrosky, Hannah Jacobson, Faith Wambua, Lilian Baker, Tiffany-Chrissy Mbeng, Leslie Ford, Srishti Sadhir, Rosemary Nzunza, Emmanuel Ndiema, David Braun, Asher Rosinger, Herman Pontzer
1:55 p.m.–2:02 p.m.	<b>The impacts of women's work and childcare on child illness among Bangladeshi Shodagor communities.</b> Katie Starkweather, Monica Keith, Fatema Zohora, Nurul Alam
2:02 p.m.–2:09 p.m.	<b>Más allá de lo simbólico-la gestión menstrual en contextos de precariedad: experiencias en Argentina y México.</b> Ana Gabriela Perroni-Marañón, Grecia Rosaura Medina, Claudia Vallengia, Melanie Martin, Sofia Olmedo, Blanca Pelcastre-Villafuerte, Sergio Meneses-Navarro, Alejandra Núñez-de la Mora
2:10 p.m.–2:25 p.m.	<b>COFFEE BREAK</b>
2:25 p.m.–4:40 p.m.	<b>PODIUM D</b> <b>Tribute to Michael Little: Last 20 years of Human Biology Research Among Pastoralists</b> Session Chair: Benjamin Charles Campbell Discussant: Bill Leonard Room: Gold IV

(Continues)



Despite encroachment by agricultural systems and globalization, pastoral nomads maintain a robust presence in numbers and traditional subsistence activity. Yet, pastoralists have received much less explicit attention than foragers as populations under consistent selective constraints including limited caloric intake, and high levels of habitual activity. Additional factors include a high protein diet from milk, and close contact with herds as a source of disease agents. Since the publication of Leonard and Crawford's volume on *The Human Biology of Pastoral Nomads* 20 years ago, the use of new techniques, for energetics, non-invasive sample collection for hormones and immune markers as well as extensive genetic analyses have greatly expanded our understanding of pastoral human biology. In addition, increasing concern about climate change has promoted an awareness that climatic fluctuation may have impacts on pastoral populations with important implications for our evolutionary past and our increasingly problematic future. This session brings together current work by human biologists on the biology of living pastoralists along with what we know of their deeper history to present an updated picture of human biological functioning and associated ecological influences in pastoral populations.

2:25 p.m.–2:40 p.m.

**The Last 20 Year of Human Biology Research Among Pastoralists.** Benjamin Charles Campbell

2:40 p.m.–2:55 p.m.

**Maternal milk buffering among settled Ariaal pastoralists.** Masako Fujita, Katherine Wander, Bilinda Straight, Ananyaa Asthana

2:55 p.m.–3:10 p.m.

**Interrogating sequence and genomic genotyping data to identify genetic variants associated with lactase persistence in nomadic populations from North Africa.** Michael Colin Campbell, Alessandro Lisi, Paolo Anagnostou, Alexandria Koedel, Cinzia Battaglia, Laura Chau, Kyle Chen, Njlaa Yasin Bakhsh, Giovanni Destro-Bisol

3:10 p.m.–3:25 p.m.

**Severe drought increased water and food insecurity and reduced mobility and nutritional status among Daasanach pastoralists in Northern Kenya, 2019–2023.** Asher Rosinger, Matthew Douglass, Rosemary Nzunza, Amanda McGrosky, Leslie Ford, Carey Musumeci, Faith Wambua, Elena Hinz, Hannah Jacobson, Srishti Sathir, Tiffany-Chrissy Mbeng, Lilian Baker, Alison Sherwood, Nicole Bobbie, Zoe Farrar, Natalie Meriwether, Zee Nguyen, Gabriella Berger, Erica Morse, Madeleine Todd, Tom Otube, Maria Bossert, Sylvia Wemanya, Husna Mashaka, Rahab Kinyanjui, David Braun, Emmanuel Ndiema, Herman Pontzer

3:25 p.m.–3:40 p.m.

**Epigenetic changes associating to in-utero exposure to environmental heat in Samburu pastoralists (Kenya).** Bilinda Straight, Xi Qiao, Duy Ngo, Charles Edward Hilton, Charles Owuor Olungah, Amy Naugle, Claudia Lalancette, Belinda L Needham

3:40 p.m.–3:55 p.m.

**Development of Adiposity Among Turkana Nomads of Northern Kenya.** Joseph Hackman, Karen Kramer, Benjamin Charles Campbell

3:55 p.m.–4:10 p.m.

**Higher resting metabolism associated with increased free thyroxine among female reindeer herders in Northern Finland.** Cara Ocobock, Päivi Soppela, Minna Turunen, Ville Stenbäck, Jaroslaw Walkowiak, Karl-Heinz Herzig

4:10 p.m.–4:40 p.m.

Discussion: Tribute to Michael Little

4:40 p.m.–5:00 p.m.

**BREAK**

5:00 p.m.–6:30 p.m.

**BUSINESS MEETING**

Room: Gold IV

7:00 p.m.–9:00 p.m.

**STUDENT RECEPTION**

Room: Gold Foyer

## **FRIDAY, MARCH 22, 2024**

8:30 a.m.–10:40 a.m.

**PODIUM D**

**Perspectives on Biological Anthropology in Brazil**

Place-based special session organized by Hilton P. Silva

Room: Gold IV

Physical Anthropology exists in Brazil since the end of the 19th Century. Throughout the 1950's until the 1990's, despite some individual researchers continuing to work with related themes, the field no longer existed as a career as there were no formal programs in the country. In fact, until 2010 there was no undergraduate or graduate level diploma in Physical/Biological Anthropology in Brazil. In that year, the Graduate Program in Anthropology of the Universidade Federal do Pará (PPGA/UFPA) was implemented as the first training program involving the four traditional fields: Archeology, Bioanthropology, Linguistics and Cultural Anthropology. This is still the only one in the nation offering training at the Master's and

Doctoral levels specifically in Biological Anthropology. The birth of PPGA has stimulated the development of new joint Anthropology and Archeology degree and research programs in many other institutions. The expectation is that as the number of Biological Anthropology graduates increase, other programs will be created in the “Boasian” model, which is still a minority in South America. As PPGA engages in transdisciplinary anthropological research, some of it in partnership with colleagues from USA and other countries, in several themes, researchers graduated from UFPA and other institutions continue to form a new generation of anthropologists, with a broader perspective, to investigate issues from pre-historic to contemporary populations. This session brings together some of the new research being conducted in recent years, demonstrating that the holistic and dynamic field of Bioanthropology can play an important role in the understanding of the distinct problems faced by the Brazilian and the Amazonian societies.

8:30 a.m.–8:45 a.m.	<b>Bioanthropology in Amazonia and Brazil: Applications of research in human ecology.</b> Ligia Amaral Filgueiras, Ariana Kelly Leandra Silva da Silva, Roseane Bittencourt Tavares Oliveira, Ana Flávia Santos de Brito, Hilton Pereira da Silva
8:45 a.m.–9:00 a.m.	<b>Two countries, two histories of admixture: the genomics of sickle cell disease in Brazil and the United States.</b> Kelly Nunes, Carlos Henrique Passos, Carla Dinardo, Ester Sabino, Brian Custer, Shannon Kelly, Diogo Meyer
9:00 a.m.–9:15 a.m.	<b>Genetic and demographic characterization of the Brazilian Federal District.</b> Silviene Fabiana Oliveira, Luciana Escher, Carolina Gontijo, Duarth Henrique Marques, Maria de Nazaré Klautau, Kelly Nunes
9:15 a.m.–9:30 a.m.	<b>Biological anthropology in Brazil: the first decade of graduate studies in the Amazon.</b> Hilton Silva
9:30 a.m.–9:45 a.m.	<b>Dental caries of a traditional population: a case study from the Middle Solimões River, Amazon, Brazil.</b> Pedro Da-Gloria, Christian Hoffmann, Barbara Ann Piperata, Rodrigo Elias Oliveira, Maria Regina Simionato, Fernando Neves Nogueira, Ana Claudeise Silva do Nascimento
9:45 a.m.–10:00 a.m.	<b>Urban landscape production and the embodiment of geographic inequities in the Amazonian city of Belém.</b> Ana Carolina Brito, Uriel Lopes Coelho, Barbara Ann Piperata, Pedro Da-Gloria, Hilton Pereira da Silva
10:00 a.m.–10:15 a.m.	<b>Using a biocultural approach to document the nutrition transition in riverine communities from Caxiuanã National Forest, Brazil.</b> Mariana Inglez, Barbara Ann Piperata, Rui Sérgio Sereni Murrieta, Mark Hubbe, Maria Ana Correia
10:15 a.m.–10:40 a.m.	Discussion: Perspectives on Biological Anthropology in Brazil
<b>10:40 a.m.–11:00 a.m.</b>	<b>COFFEE AVAILABLE</b>