

AARON D. BLACKWELL

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RESEARCH INTERESTS

Using life history theory and evolutionary ecology as a frameworks for understanding human physiology, behavior, and health.

PROFESSIONAL SPECIALIZATIONS

- Human ecological immunology
- Human growth and development
- Human reproductive ecology
- Behavioral ecology and life history theory
- Evolutionary parasitology and disease ecology
- Health of Amazonian populations

EDUCATION

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| 2006-2009 | PhD. Biological Anthropology, University of Oregon, Eugene, OR,
Dissertation: Life history trade-offs in growth and immune function |
| 2004-2006 | MA. Biological Anthropology, University of Oregon, Eugene, OR. |
| 1996-2000 | BA. Biochemistry, Minor: English, <i>cum laude</i> . Lewis and Clark College,
Portland, OR. Overseas Study in Kenya (Spring 1998) |

PROFESSIONAL POSITIONS

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| 2018-Present | Associate Professor , Department of Anthropology, Washington State University, Pullman, WA |
| 2012-2019 | Associate Professor , Department of Anthropology, University of California, Santa Barbara, CA. (Promotion from Assistant Professor in 2017). |
| 2012-2018 | Director , Human Ecological Immunology Laboratory, University of California, Santa Barbara, CA; Co-director , Human Biodemography Laboratory, University of California, Santa Barbara, CA |
| 2016-2018 | Affiliated Scholar , Department of Human Behavior, Ecology, and Culture, Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany |
| 2010-2012 | Postdoctoral Scholar , Institute for Social, Behavioral and Economic Research, University of California, Santa Barbara, CA, Mentor: Michael Gurven |
| 2007-2009 | Summer Instructor , Department of Anthropology, University of Oregon, Eugene, OR |
| 2004-2009 | Graduate Teaching Fellow , Departments of Anthropology and Biology. University of Oregon, Eugene, OR |
| 2004-2007 | Statistical Consultant , Blackwell Consulting, Eugene, OR |

2003-2004	Research Associate/Study Coordinator , Mood Disorders Research Center / Hepatitis C Resource Center, Portland VA Medical Center, Portland, OR,
2000-2001	Research Assistant , Department of Cell and Developmental Biology, Oregon Health and Science University, Portland, OR

GRANTS AND FUNDING

2020	NSF Cultural Anthropology: Collaborative Research: Disentangling the effects of extrinsic mortality risk and energy availability on the timing of human pubertal events in Honduras (PIs: Aaron Blackwell, Carolyn Hodges-Simeon, Angela Garcia: \$398,464. Recommended for funding with start date May 2020.
2019	NSF Dissertation Improvement Grant: “Doctoral Dissertation Research: The effects of porous cranial lesions on adult health and the evidence for childhood anemia-driven skeletal changes in a living Amazonian subsistence” (PIs: Aaron Blackwell, Michael Gurven, Co-PI: Amy Anderson: \$31,044)
2017	Funding from Max Planck Institute to UCSB for “Behavioral Flexibility in an Invasive Species: Functions, Mechanisms, Invasion Ecology, and Genetics” (PIs: Corina Logan and Aaron Blackwell: \$239,979)
2017	Wenner-Gren Foundation, “Do Neuroendocrine-Immune Interactions Mediate Links Between Social Disparities and Metabolic Risk among Honduran Immigrant Women?” (PI: Angela Garcia, Supervisor: Aaron Blackwell: \$20,000)
2015	NIA/NIH bridge funding for <i>The Human Life Course and the Biodemography of Aging</i> R01 AG024119 (PIs Hillard Kaplan and Michael Gurven: \$590,660)
2014	Hellman Family Foundation Award: “Validation of Field Friendly Methods for Measuring Immune Function” (PI: Blackwell: \$29,100)
2014	UCSB Faculty Career Development Award
2013	UC Regents Junior Faculty Fellowship
2011	NIA/NIH Immunosenescence supplement to <i>The Human Life Course and the Biodemography of Aging</i> R01 AG024119 Role: Primary investigator for the immune component of the larger project (PIs: Hillard Kaplan and Michael Gurven: \$1,890,110)
2009	Betty Foster McCue Fellowship
2008	NSF Dissertation Improvement Grant BCS-0824602: “The effects of parental investment and market integration on growth and immune function in an indigenous Amazonian population” (\$14,974)
2007-2008	Sasakawa Young Leaders Fellowship (\$12,000)
2006	Institute of Cognitive and Decision Sciences Research Grant (\$500)

HONORS AND AWARDS

2012	New Investigator Award - Evolutionary Anthropology Society
2009	Malcolm McFee Paper Award (University of Oregon)
2006	L.S. and D.C. Cressman Paper Prize (University of Oregon)
2006	Best Graduate Student Paper, NW Anthropological Conference, Seattle, WA

2003	Team of the Year, Hepatitis C Resource Center (Portland VA Medical Center)
2003	Team of the Month (December), Hepatitis C Resource Center (Portland VA)
2000	Phi Beta Kappa
1999	John S. Rogers Science Research Fellow (Lewis and Clark College)
1997	Robert B. Pamplin Society of Fellows (Lewis and Clark College)

KEY PUBLICATIONS

Citation Metrics: <http://goo.gl/InJBRS>. PDFs or links can be found at Blackwell-lab.com

- 38 Garcia, AR, Gurven, MD, **Blackwell, AD**. (2017) A matter of perception: perceived socio-economic status and diurnal cortisol on the island of Utila, Honduras. *American Journal of Human Biology*. 29(5) e23031. DOI: 10.1002/ajhb.23031
- 33 **Blackwell, AD**, Urlacher, SS, Beheim, B, von Rueden, C, Jaeggi, A, Stieglitz, J, Trumble, BC, Gurven, MD, Kaplan, H. (2017) Growth references for Tsimane forager-horticulturalists of the Bolivian Amazon, *American Journal of Physical Anthropology*. 162(3) 441-461. DOI: 10.1002/ajpa.23128.
- 28 **Blackwell, AD**, Trumble BC, Maldonado Suarez, I, Stieglitz, J, Beheim, B, Snodgrass, JJ, Kaplan, H, Gurven, M. (2016) Immune Function in Amazonian Horticulturalists, *Annals of Human Biology*, 43(4): 382-396. DOI: 10.1080/03014460.2016.1189963.
- 24 **Blackwell, AD**, Tamayo, M, Beheim, B, Trumble, BC, Stieglitz, J, Hooper, PL, Martin, M, Kaplan, H, Gurven, M. (2015) Helminth infection, fecundity, and age of first pregnancy in women, *Science* 350 (6263): 970-972, DOI: 10.1126/science.aac7902
- 19 **Blackwell AD**, Martin MA, Kaplan H, Gurven M. (2013) Antagonism between two intestinal parasites in humans: The importance of coinfection for infection risk and recovery dynamics, *Proceedings of the Royal Society B* 280(1769): 20131671. DOI: 10.1098/rspb.2013.1671.
- 11 **Blackwell AD**, Snodgrass JJ, Madimenos FC, and Sugiyama LS. (2010) Life history, immune function, and intestinal helminths: trade-offs among immunoglobulin E, C-reactive protein, and growth in an Amazonian population, *American Journal of Human Biology* 22 (6): 836-848. DOI: 10.1002/ajhb.21092.

OTHER PUBLICATIONS

Citation Metrics: <http://goo.gl/InJBRS>. PDFs or links can be found at Blackwell-lab.com

- 48 **Blackwell, AD** and Trumble, BC. Human Biology and Behavioral Ecology. Chapter in “Human Behavioral Ecology”, edited by Jeremy Koster, Brooke Scelza, and Mary Shenk. (in press)
- 47 Alami, S, von Rueden, C, Seabright, E, Kraft, T, **Blackwell, A**, Kaplan, H, Gurven, M. High social status is associated with child health among women, but not men, in a horticulturalist population, in submission

- 46 Garcia, AR, **Blackwell, AD**, Trumble, BC, Stieglitz, J, Cortez Linares, E, Kaplan, H, Gurven, M. Evidence for height and immune function trade-offs among pre-adolescents, but not infants, in a high pathogen population, in submission
- 45 Anderson, A, Trumble, BC, Hove, C, Kraft, TS, Kaplan, H, Gurven, MD, **Blackwell, AD** (2019) Old friends and friendly fire: Pregnancy, hookworm infection, and anemia among tropical horticulturalists, *American Journal of Human Biology*, e23337 DOI: 10.1002/ajhb.23337
- 44 Hodges-Simeon, CR, Asif, S, Gurven, MD, **Blackwell, AD**, Gaulin, SJC. (2019) Testosterone is positively and estradiol negatively associated with mucosal immunity in Amazonian adolescents. *American Journal of Human Biology*. e23284 DOI: 10.1002/ajhb.23284
- 43 Martin, MA, **Blackwell, AD**, Kaplan, HS, Gurven, MD. (2019) Differences in Tsimane children's growth outcomes and associated determinants as estimated by WHO standards vs. within-population references. *PLoS One*, 14(4): e0214965 DOI: 10.1371/journal.pone.0214965
- 42 Gurven, MD, Trumble, B, Stieglitz, J, Cummings, D, Kaplan, H, **Blackwell, AD**, Yetish, G, Pontzer, H (2019) Methodological differences cannot explain associations between health, anthropometrics, and excess resting metabolic rate. *American Journal of Physical Anthropology*. DOI: 10.1002/ajpa.23811
- 41 **Blackwell, AD**. (2018) Childhood conditions set the balance. *Nature Ecology & Evolution*, 2, 1061-1062. DOI: 10.1038/s41559-018-0594-3. <https://rdcu.be/1OfO>
- 40 **Blackwell, AD**, Purzycki, BG. (2018) Shamanism and Efficacious Exceptionalism (Commentary on: Singh, "The cultural evolution of shamanism"). *Behavioral and Brain Sciences*, 41, e69 DOI: 10.1017/S0140525X1700200X.
- 39 Garcia, AR, **Blackwell, AD**. (2017) The physiological constellation of deprivation: immunological strategies and health outcomes (Commentary on: Pepper and Nettle, "The Behavioural Constellation of Deprivation: Causes and Consequences"). *Behavioral and Brain Sciences*, 40, e327 DOI: 10.1017/S0140525X17000978.
- 37 Hodges-Simeon, CR, Prall, SP, **Blackwell, AD**, Gurven, MD, Gaulin, SJC. (2017) Adrenal maturation, nutritional status and mucosal immunity in Bolivian adolescents. *American Journal of Human Biology*. 29(5) e23025. DOI: 10.1002/ajhb.23025
- 36 **Blackwell, AD**. (2017) Expanding the insurance hypothesis of obesity with physiological cues (Commentary on Nettle, Andrews, and Bateson, "Food insecurity as a driver of obesity in humans: The insurance hypothesis"). *Behavioral and Brain Sciences*. 40, e108 DOI: 10.1017/S0140525X16001333
- 35 Gurven, M, Kaplan, H, Stieglitz, J, Trumble, B, **Blackwell, AD**, Beheim, B, Hooper, P. (2017) The Tsimane Health and Life History Project (THLHP): Integrating anthropology and biomedicine. *Evolutionary Anthropology*. 26(2) 54-73. DOI: 10.1002/evan.21515.

- 34 Trumble, BC, Stieglitz, J, **Blackwell, AD**, Allayee, H, Beheim, B, Finch, CE, Gurven, MD, Kaplan, HS. (2017) Apolipoprotein E4 is associated with improved cognitive function in Amazonian forager-horticulturalists with a high parasite burden, *The FASEB Journal*. DOI:10.1096/fj.201601084R
- 32 **Blackwell, AD**. (2016) Helminth infection during pregnancy: insights from evolutionary ecology, *International Journal of Women's Health*, 2016(8): 651-661. DOI: 10.2147/IJWH.S103529
- 31 Gurven, M, Trumble, BC, Stieglitz, J, **Blackwell, AD**, Michalik, DE, Finch, C, Kaplan, H. (2016) Cardiovascular disease and type 2 diabetes in evolutionary perspective: a critical role for helminths? *Evolution, Medicine & Public Health*. 2016 (1): 338-357. DOI: 10.1093/emph/eow028.
- 30 Trumble, BC, **Blackwell, AD**, Stieglitz, J, Emery Thompson, M, Maldonado Suarez, I, Kaplan, H, Gurven, M. (2016). Associations between male testosterone and immune function in a pathogenically stressed forager-horticultural population, *American Journal of Physical Anthropology*. 161(3): 494–505. DOI: 10.1002/ajpa.23054
- 29 Gurven, MD, Yetish, G, Trumble, BC, Stieglitz, J, Cummings, D, **Blackwell, AD**, Beheim, B, Kaplan, HS, Pontzer, H. (2016) High resting metabolic rate among Amazonian forager-horticulturalists experiencing high pathogen burden, *American Journal of Physical Anthropology*. 161(3): 414-425. DOI: 10.1002/ajpa.23040
- 27 Urlacher, SS, Liebert, MA, Snodgrass, JJ, **Blackwell, AD**, Cepon-Robins, TJ, Gildner, TE, Madimenos, FC, Amir, D, Bribiescas, R, Sugiyama, LS. (2016) Heterogeneous effects of market integration on subadult body size and nutritional status among the Shuar of Amazonian Ecuador, *Annals of Human Biology*, 43(4): 316-329. DOI: 10.1080/03014460.2016.1192219.
- 26 Urlacher, SS*, **Blackwell, AD***, Liebert, MA, Madimenos, FC, Cepon-Robins, TJ, Gildner, TE, Snodgrass, JJ, Sugiyama, LS. (2016) Physical Growth of the Shuar: Height, Weight, and BMI Growth References for an Indigenous Amazonian Population, *American Journal of Human Biology*, 28(1): 16-30. DOI: 10.1002/ajhb.22747. *co-first authors
- 25 **Blackwell, AD**. (2015) Evolution in Four Dimensions: Genetic, Epigenetic, Behavioral, and Symbolic Variation in the History of Life (Revised Edition), by Eva Jablonka and Marion J. Lamb. *American Journal of Human Biology* 27(3):440-441. DOI: 10.1002/ajhb.22721
- 23 Stieglitz, J, Trumble, B, Emery Thompson, M, **Blackwell, AD**, Kaplan, H, Gurven, M. (2015) Depression as sickness behavior? A test of the host defense hypothesis in a high pathogen population, *Brain, Behavior, and Immunity* 49:130-139, DOI: 10.1016/j.bbi.2015.05.008
- 22 Von Rueden, CR, Trumble, BC, Emory Thompson, M, Stieglitz, J, Hooper, PL, **Blackwell, AD**, Kaplan, HS, Gurven, M. (2014) Political influence associates with cortisol and health among egalitarian forager-farmers, *Evolution, Medicine, and Public Health*, 2014: 122-133, DOI: 10.1093/emph/eou02

- 21 Stieglitz, J, Jaeggi, AV, **Blackwell, AD**, Trumble, BC, Kaplan, H, Gurven, M. (2014) “Work to Live and Live to Work: Productivity and Psychological Well-Being in Adulthood and Old Age” in Weinstein, M, Lane, M, ed., *Sociality, Hierarchy, Health: Comparative Biodemography*, National Academies Press, Washington DC
- 20 Pisor AC, Gurven M, **Blackwell, AD**, Kaplan H, Yetish, G. (2013) Patterns of senescence in human cardiovascular fitness: VO₂max in subsistence and industrialized populations, *American Journal of Human Biology* 25(6): 756–769. DOI: 10.1002/ajhb.22445.
- 18 Martin, M, **Blackwell, AD**, Gurven, M, Kaplan, H. (2013) “Make new friends and keep the old? Parasite coinfection and comorbidity in *Homo sapiens*”, in Brinkworth J & Pechenkina K, eds, *Primates, Pathogens and Evolution*, Springer, New York
- 17 Liebert MA, Snodgrass JJ, Madimenos FC, Cepon TJ, **Blackwell AD**, Sugiyama LS. (2013) Implications of market integration for cardiovascular and metabolic health among an indigenous Amazonian Ecuadorian population. *Annals of Human Biology* 40(3) 228-242. DOI:10.3109/03014460.2012.759621.
- 16 Stieglitz J, **Blackwell AD**, Kaplan, H, Quispe Gutierrez, R, Cortez Linares, E, Gurven, M. (2012) Modernization, sexual risk-taking, and gynecological morbidity among Bolivian forager-horticulturalists. *PLoS ONE* 7(12): e50384. DOI:10.1371/journal.pone.0050384.
- 15 Gurven MD, **Blackwell AD**, Eid Rodriguez, D, Stieglitz, J, Kaplan, H. (2012) Does blood pressure inevitably rise with age? Longitudinal evidence among forager-horticulturalists, *Hypertension*, 60(1): 25-33. DOI: 10.1161/HYPERTENSIONAHA.111.189100.
- 14 **Blackwell AD**, Gurven MD, Sugiyama LS, Madimenos FC, Liebert, MA, Martin, MA, Kaplan HS, and Snodgrass JJ. (2011) Evidence for a peak shift in a humoral response to helminths: Age profiles of IgE in the Shuar of Ecuador, the Tsimane of Bolivia, and the U.S. NHANES, *PLoS Neglected Tropical Diseases* 5(6): e1218. DOI: 10.1371/journal.pntd.0001218.
- 13 Madimenos FC, Snodgrass JJ, **Blackwell AD**, Liebert MA, Cepon, TJ, and Sugiyama LS. (2011) Normative calcaneal quantitative ultrasound data for the indigenous Shuar and Non-Shuar colonos of the Ecuadorian Amazon, *Archives of Osteoporosis* 6(1-2): 39-49, DOI: 10.1007/s11657-011-0056-x.
- 12 Madimenos FC, Snodgrass JJ, Liebert M, **Blackwell AD**, and Sugiyama LS. (2011) Physical activity in an indigenous Ecuadorian forager-horticulturalist population as measured using accelerometry, *American Journal of Human Biology* 23(4): 488-497. DOI: 10.1002/ajhb.21163.
- 10 **Blackwell, AD**, Pryor, G, Pozo, J, Tiwia, W, and Sugiyama, LS. (2009) Growth and market integration in Amazonia: A comparison of growth indicators between Shuar, Shiwar, and nonindigenous school children, *American Journal of Human Biology* 21(2): 161-171. DOI: 10.1002/ajhb.20838.
- 9 Matthews, A, Huckans, MS, **Blackwell, AD**, and Hauser, P. (2008) Hepatitis C testing and infection rates in bipolar patients with and without co-morbid substance use disorders, *Bipolar Disorders* 10(2): 266-270. DOI: 10.1111/j.1399-5618.2007.00472.x.

- 8 Huckans, MS, Loftis, JM, **Blackwell, AD**, Linke, A, and Hauser, P. (2007) Interferon Alpha Therapy for Hepatitis C: Treatment Completion and Response Rates among Patients with Substance Use Disorders. *Substance Abuse Treatment, Prevention, and Policy* 2(1): Article 4. DOI:10.1186/1747-597X-2-4.
- 7 Huckans, MS, **Blackwell, AD**, Harms, TA and Hauser, P. (2006) Management of hepatitis C disease among VA patients with schizophrenia and substance use disorders. *Psychiatric Services* 57(3):403-406. DOI: 10.1176/appi.ps.57.3.403.
- 6 Turner, EH, Loftis, JM, and **Blackwell, AD**. (2006) Serotonin a la carte: Supplementation with the serotonin precursor 5-hydroxytryptophan. *Pharmacology and Therapeutics* 109(3): 325-338. DOI:10.1016/j.pharmthera.2005.06.004.
- 5 Huckans, MS, **Blackwell, AD**, Harms, TA, Indest, DW, Hauser, P. (2005) Integrated HCV Treatment: Addressing Co-morbid Substance Use Disorders, Psychiatric Disorders, and HIV Infection. *AIDS* 19(Suppl 3): S106-S109.
- 4 Turner, EH and **Blackwell, AD**. (2005) 5-hydroxytryptophan plus SSRIs for interferon-induced depression: Synergistic mechanisms for normalizing synaptic serotonin. *Medical Hypotheses* 65(1): 138-144. DOI:10.1016/j.mehy.2005.01.026.
- 3 Fireman, M., Indest, DW, **Blackwell, AD**, Whitehead, AJ, and Hauser, P. (2005) Addressing Tri-morbidity (Hepatitis C, Psychiatric, and Substance Use Disorders): the Importance of Routine Mental Health Screening as a Component of a Co-management Model of Care. *Clinical Infectious Diseases* 40(Suppl. 5): S286-S291. DOI: 10.1086/427442.
- 2 Vogt, TM, **Blackwell, AD**, Giannetti, AM, Bjorkman, PJ, and Enns, CA. (2003) Heterotypic interactions between Transferrin Receptor and Transferrin Receptor 2. *Blood* 101:2008-2014. DOI: 10.1182/blood-2002-09-2742.
- 1 Green, F, O'Hare, T, **Blackwell, AD**, and Enns, CA. (2002) Association of human transferrin receptor with GABARAP. *FEBS Letters* 518:101-106. DOI:10.1016/S0014-5793(02)02655-8.

PREREGISTRATIONS

Sevchik A, Logan CJ, Bergeron L, **Blackwell A**, Rowney C, Lukas D. 2019. Investigating sex differences in genetic relatedness in great-tailed grackles in Tempe, Arizona to infer potential sex biases in dispersal. In principle acceptance by PCI Ecology of the version on 29 Nov 2019.

<https://doi.org/10.24072/pci.ecology.100036>

<http://corinalogan.com/Preregistrations/gdispersal.html>

Logan, CJ, Rowney, C, Bergeron, L, McCune, K, MacPherson, M, Bond, A, **Blackwell, AD**, Escalante, A, Pacheco, M, Lukas, D. How and why does behavioral flexibility vary across the range of a rapidly expanding species?

http://corinalogan.com/Preregistrations/g_expansion.html

Logan, CJ, Rowney, C, Bergeron, L, McCune, K, **Blackwell, AD**, Lukas, D. The genetics of behavioral flexibility across the range of a rapidly expanding species.

http://corinalogan.com/Preregistrations/g_flexgenes.html

Logan, CJ, Rowney, C, Bergeron, L, McCune, K, MacPherson, M, Bond, A, **Blackwell, AD**, Escalante, A, Pacheco, M, Lukas, D, Wascher, C. What are the costs and constraints of behavioral flexibility in great-tailed grackles?

http://corinalogan.com/Preregistrations/g_withinpop.html

Folsom, MA, MacPherson, M, Lukas, D, McCune, KB, Bond, A, **Blackwell, AD**, Logan, CJ. Repeated parental care by adult male great-tailed grackles and its association with hormones, fitness, specific populations, and mating strategies.

<http://corinalogan.com/Preregistrations/gmalecare>

SELECT PAPERS IN PREPARATION

Blackwell, AD. Transgenerational inheritance of immunological knowledge: in utero exposure as a cue inducing tolerance and resistance to parasites and pathogens. In prep.

Blackwell, AD and Anderson, A. boneMachine: An R Package for Rotation and Analysis of DICOM and Other Three-Dimensional Data. In prep for *Journal of Statistical Software*

CURRENT RESEARCH PROJECTS

Disentangling the effects of extrinsic mortality risk and energy availability on the timing of human pubertal events in Honduras. Utila is an island off the coast of Honduras with an eclectic history. The island measures only 11 km by 4 km, yet is home to a number of distinct social and ethnic groups. These include Spanish-speaking mestizo immigrants from the mainland, Utilian descendants of British and Americans who settled in the late 19th century, and ex-pats who come to Utila from the United States and elsewhere for dive tourism. The unique context of Utila provides a natural experiment for examining how social differences and different developmental histories impact on the health of different individuals living in the same environment. This study will examine the contributions of energy availability, disease, and cues of mortality risk on the timing and pace of pubertal development in boys and girls in Utila and mainland Honduras. PIs: Carolyn Hodges-Simeon, Aaron Blackwell, Angela Garcia

Impacts of Economic Development on Psychosocial Stress and Cortisol among Honduran Immigrants and Native Islanders on Utila. This study in Utila examine how psychosocial stress relates to diabetes and hypertension risk, the impact of stress and disease on immune function, and the relationships between cultural history and identity and health. PIs: Angela Garcia and Aaron Blackwell

Immune function, disgust sensitivity, and personality. Investigates associations between immune function, behavioral disgust responses, and future orientation. Posits that baseline immunity should relate to disgust sensitivity, with poorer defenses against viral threats associating with more disgust from interpersonal disease threats, and poorer defenses against parasites and bacteria associating with disgust to food and dead animals. PI: Aaron Blackwell

The Tsimane Health and Life History Project is a joint health and anthropology project aimed at understanding the impacts of ecology and evolution on the shaping of the human life course.

The project focuses on the health, growth and development, aging, economics and biodemography of small-scale populations of hunter-gatherers and horticulturalists. It combines biomedical and anthropological research with medical attention among Tsimane, an indigenous forager-farming group living in central lowland Bolivia in the Beni Department. Role: Co-investigator. PIs: Hillard Kaplan (University of New Mexico) and Michael Gurven (University of California, Santa Barbara). Website: <http://www.unm.edu/~tsimane/>

Trade-offs in Cognitive Ability, Physical Quality, and Immune Function in Great-tailed Grackles (*Quiscalus mexicanus*). The project will use a variety of immune function and behavioral measures to assess trade-offs and correlations between cognitive ability, physical characteristics and immune function in grackles across their North American range, in order to examine how individual differences in behavior and physiology associate with behavioral innovation. Role: Co-investigator. PI: Corina Logan (Cambridge, UK).

The Shuar Life History, Health, and Reasoning Project is a collaborative effort involving researchers from the University of Oregon, the Shuar Federation, and the Ecuadorian Health Ministry Hospital in Sucúa, Ecuador. The project investigates Shuar health, immune function, subsistence, economy, parenting, reasoning, and demography in order to test a variety of life history predictions. Role: Co-investigator. PIs: Lawrence Sugiyama (University of Oregon) and J. Josh Snodgrass (University of Oregon). Website: <http://www.bonesandbehavior.org/shuar>

INVITED LECTURES

Blackwell, AD. Quantifying life history trade-offs across the life span. University of Washington, Seattle WA. Dec 2018.

Blackwell, AD. Pathogens, Parasites, and Human Life Histories. Behaviour, Ecology & Evolution Seminar Series, Cambridge University, Cambridge UK, February 14, 2017

Blackwell, AD. Pathogens, Parasites, and Human Life Histories. Evolution & Human Adaptation Program Speaker Series, University of Michigan, September 19, 2016

Blackwell, AD. Market Integration and the Health of Amazonian Amerindians, spatial@ucsb.local2016 Conference, Plenary address, Santa Barbara, CA, June 2, 2016

Blackwell, AD. Helminth infection, fecundity and age of first pregnancy in women. Center for Human Reproduction, Grand Rounds CME Event, New York, NY, February 16, 2016

Blackwell, AD. Effects of Parasitism on Fecundity and Life History in Human Females. Broom Center for Demography, UC Santa Barbara, October 6, 2014

Blackwell, AD. Old friends: How do helminths affect co-infection, co-morbidity and immune function in free-living humans? Ecology and Evolution of Infectious Disease Annual Conference, Colorado State University, Fort Collins, Colorado, June 4, 2014

Blackwell, AD. Life history, immune function, and helminths: The behavioral and immunological ecology of the Shuar of Ecuador. Behavior, Evolution, and Culture Speaker Series, UCLA, September 27, 2010. Available on iTunes at: <http://goo.gl/FTORN>

Blackwell AD and Sugiyama LS. When is self-sacrifice adaptive? Evolutionary Perspectives on War Conference, Eugene, OR. October 18, 2008

PRESENTATIONS AND POSTERS

2019

Blackwell, AD. Quantifying the relationship between somatic maintenance costs and adult body size. International Society for Evolution, Medicine, and Public Health, Zurich, Switzerland. August 2019.

Anderson, AS, **Blackwell, AD**, Trumble, BC, Thompson, RC, Wann, LS, Allam, AH, Frohlich, B, Sutherland, ML, Sutherland, JD, Stieglitz, J, Rodriguez, DE, Irimia, A, Law, M, Barisano, G, Chui, H, Michalik, DE, Rowan, C, Lombardi, G, Bedi, R, Garcia, AR, Cummings, D, Min, JK, Narula, J, Finch, CE, Thomas, GE, Kaplan, H, Gurven, M. Porotic cranial lesions in living forager-horticulturalists: theoretical pathways and preliminary evidence. American Association of Physical Anthropologists, Cleveland, OH. March 2019. *American Journal of Physical Anthropology* 168: 6-7.

Garcia, AR, Murillo, S, Trumble, BC, Gurven, MD, **Blackwell, AD.** Chronic stressors lead to dysregulated endocrine-immune function and diabetes risk in Honduran immigrant women. American Association of Physical Anthropologists, Cleveland, OH. March 2019. *American Journal of Physical Anthropology* 168: 81-82.

Blackwell, AD, Garcia, AR. Human Eco-immunology in the Field: Measuring multiple dimensions of immune function with minimally invasive, field-adapted techniques. American Association of Physical Anthropologists, Cleveland, OH. March 2019. *American Journal of Physical Anthropology* 168: 21.

Treadway, AM, Liebert, MA, Madimenos, FC, Urlacher, SS, Cepon-Robins, TJ, Gildner, TE, Schrock, JM, Harrington, CJ, Amir, D, **Blackwell, AD,** Bribiescas, RG, Snodgrass, JJ, Sugiyama, LS. Secular trends in cardiovascular and metabolic health among the Indigenous Shuar of Amazonian Ecuador. American Association of Physical Anthropologists, Cleveland, OH. March 2019. *American Journal of Physical Anthropology* 168: 249.

Garcia, AR, Trumble, BC, Marquez, M, Gurven, MD, **Blackwell, AD.** Diurnal neuroendocrine-immune regulation in ecological context: assessing relationships between cortisol and leukocytes among Honduran women. Human Biology Association, Cleveland, OH. March 2019. *American Journal of Human Biology* 31 (2)

Hové, CM, Trumble, BC, Anderson, AS, Stieglitz, J, Kaplan, H, Gurven, M, **Blackwell, AD.** The flexibility of fetal tolerance: immune function during pregnancy varies between two ecologically distinct populations. Human Biology Association, Cleveland, OH. March 2019. *American Journal of Human Biology* 31 (2)

Blackwell, AD. Quantifying life history trade-offs across the life span. Human Biology Association, Cleveland, OH. March 2019. *American Journal of Human Biology* 31 (2)

2018

Blackwell, AD. Transgenerational inheritance of immunological knowledge: in utero exposure as a cue inducing tolerance and resistance to parasites and pathogens. Northwest Ecology Evolution and Human Behavior, Boise, ID. October 2018.

Blackwell, AD. Quantifying life history trade-offs across the life span. Human Behavior and Evolution Society, Amsterdam, Netherlands. June 2018.

Blackwell, AD. Transgenerational inheritance of immunological knowledge: *in utero* exposure as a cue inducing tolerance and resistance to parasites and pathogens. Human Biology Association, Austin, TX. April 2018. *American Journal of Human Biology* 30 (2): e23111

Garcia, AR, Gurven, MD, Murillo, S, Marquez, M, **Blackwell, AD.** The immunomodulatory role of cortisol on proinflammatory leukocyte subsets among Honduran immigrant women on Utila. American Association of Physical Anthropologists, Austin, TX. April 2018. *American Journal of Physical Anthropology* 165: 93.

2017

Blackwell, AD. In utero sensitization and induction of tolerance to parasite antigens: Is transplacental immunization a mechanism for the inheritance of immunological strategies? International Society for Evolution, Medicine, and Public Health, Groningen, Netherlands. August 2017.

Blackwell, AD, Trumble, BC, Maldonado Suarez, I, Stieglitz, J, Beheim, B, Snodgrass, JJ, Kaplan, H, Gurven, M. Immune function across the life-span in Amazonian horticulturalists. American Association of Physical Anthropologists, New Orleans, LA. April 2017. *American Journal of Physical Anthropology* 162 (S64).

Gurven, MD, Trumble, BC, Stieglitz, J, Beheim, B, **Blackwell, AD,** Michalik, D, Allam, AH, Rowan, C, Frohlich, B, Sutherland, L, Sutherland, JD, Min, JK, Finch, CE, Wann, S, Thompson, RC, Thomas, GS, Kaplan, HS. Atherosclerosis in contemporary preindustrial populations: does it exist and is it clinically relevant? American Association of Physical Anthropologists, New Orleans, LA. April 2017. *American Journal of Physical Anthropology* 162 (S64).

Trumble, BC, Stieglitz, J, **Blackwell, AD,** Beheim, B, Cummings, DK, Kaplan, H, Gurven, M. Associations between biomarkers of immune function and cognitive performance in forager-horticulturalists with high parasite and pathogen loads. American Association of Physical Anthropologists, New Orleans, LA. April 2017. *American Journal of Physical Anthropology* 162 (S64).

Hove, C, **Blackwell, AD,** Trumble, BC, Maldonado Suarez, I, Stieglitz, J, Beheim, B, Snodgrass, JJ, Gurven, M, Kaplan, H. Immune modulation during pregnancy in a non-industrialized and high pathogen context. Human Biology Association, New Orleans, LA. April 2017. *American Journal of Human Biology* 29 (2): e22974

Anderson, A, Trumble, B, Gurven, M, **Blackwell, AD,** Kaplan, H. Effects of hookworm on hematological markers of anemia and immune function during pregnancy among Bolivian

forager-farmers. Human Biology Association, New Orleans, LA. April 2017. *American Journal of Human Biology* 29 (2): e22974

Garcia, A, **Blackwell, AD**, Trumble, B, Veile, A, Kaplan, H, Gurven, M. Thymus volume, immune function, and growth in Tsimane children of the Bolivian Amazon. Human Biology Association, New Orleans, LA. April 2017. *American Journal of Human Biology* 29 (2): e22974

Hodges-Simeon, CR, Gurven, M, **Blackwell, AD**, Gaulin, SJC. Sex steroid hormones and mucosal immunity in Amazonian adolescents: A test of the immunocompetence-handicap hypothesis. Human Biology Association, New Orleans, LA. April 2017. *American Journal of Human Biology* 29 (2): e22974

McAllister, L, **Blackwell, AD**, Gurven, MD. Environmental harshness and the pace of life history: Does exposure to sibling deaths affect reproductive behavior? Human Biology Association, New Orleans, LA. April 2017. *American Journal of Human Biology* 29 (2): e22974

2016

Blackwell, AD, Garcia, A, Keivanfar, N, Bay, S. Disgust, personality, and patterns of cellular immunity. American Anthropological Association - Evolutionary Anthropology Society, Minneapolis, MN, November 2016

Blackwell, AD, Garcia, A, Keivanfar, N, Bay, S. Pathogen disgust is related to patterns of cellular immunity. Human Behavior and Evolution Society, Vancouver, BC, June 2016

Bay, S, Trumble, B, Kalina, L, Lustig, E, **Blackwell, AD**. Are acute changes in endogenous testosterone associated with changes in cellular immunity? Human Behavior and Evolution Society, Vancouver, BC, June 2016

Blackwell, AD, Trumble, BC, Maldonado Suarez, I, Stieglitz, J, Beheim, B, Snodgrass, JJ, Kaplan, H, Gurven, M. Immune Function in Amazonian Horticulturalists. The International Society for Evolution, Medicine, & Public Health, Durham, NC. June 2016

Hove, C, **Blackwell, AD**, Trumble, BC, Maldonado Suarez, I, Stieglitz, J, Beheim, B, Snodgrass, JJ, Gurven, M, Kaplan, H. Immune Modulation during Pregnancy for Women in a High Pathogen Environment. The International Society for Evolution, Medicine, & Public Health, Durham, NC. June 2016

Keivanfar, N, Garcia, A, Bay, S, **Blackwell AD**. Sleep, immunity, and life history: associations between time of sleep onset, sleep duration, and leukocyte counts. The International Society for Evolution, Medicine, & Public Health, Durham, NC. June 2016

Anderson, A, Trumble, B, Kaplan, H, Gurven, M, **Blackwell, AD**. Immunity, iron, and reproductive status in the Bolivian Amazon. The International Society for Evolution, Medicine, & Public Health, Durham, NC. June 2016

Trumble, BC, **Blackwell, AD**, Stieglitz, J, Finch, C, Gurven, M, Kaplan, H. Protective impact of ApoE4 on cognitive performance of older adult Tsimane forager-horticulturalists. The International Society for Evolution, Medicine, & Public Health, Durham, NC. June 2016

von Rueden, C, Trumble, B, Emery Thompson, M, Stieglitz, J, Hooper, P, **Blackwell, AD**, Kaplan, H, Gurven, M. Political influence associates with cortisol and health among egalitarian forager-farmers. The International Society for Evolution, Medicine, & Public Health, Durham, NC. June 2016

Blackwell, AD, Garcia, A, Keivanfar, N, Bay, S, Cepon-Robins, TJ. Disgust, personality, and patterns of cellular immunity. California Workshop on the Evolutionary Social Sciences, San Louis Obispo, CA. May 7, 2016.

Keivanfar, N, Garcia, A, Bay, S, **Blackwell AD**. Associations between time of sleep onset, sleep duration, and leukocyte counts. Human Biology Association, Atlanta, GA. April 2016. *American Journal of Human Biology* 28 (2): 283

Anderson, A, Trumble, B, Kaplan, H, Gurven, M, **Blackwell, AD**. Predictors of microcytic and macrocytic anemia in the Bolivian Amazon. Human Biology Association, Atlanta, GA. April 2016. *American Journal of Human Biology* 28 (2): 267

Blackwell, AD, Urlacher, SS, Beheim, B, von Rueden, C, Trumble, BC, Stieglitz, J, Kaplan, H, Gurven, M. Growth references for Amazonian populations. Human Biology Association, Atlanta, GA. April 2016. *American Journal of Human Biology* 28 (2): 269

Garcia, A, **Blackwell, AD**. A matter of perception: Subjective and objective socioeconomic status and diurnal cortisol on the island of Utila, Honduras. Human Biology Association, Atlanta, GA. April 2016. *American Journal of Human Biology* 28 (2): 278

McAllister, LS, **Blackwell, AD**, Garcia, G, Gurven, MD. Teenage Pregnancy compromises maternal growth but not reproductive success among the Tsimane, Bolivian forager-farmers. Human Biology Association, Atlanta, GA. April 2016. *American Journal of Human Biology* 28 (2): 286

Blackwell, AD, Garcia, A, Keivanfar, N, Bay, S. Validation of field methods for freezing whole blood for later analysis with flow cytometry. American Association of Physical Anthropologists, Atlanta, GA. April 2015. American Association of Physical Anthropologists, Atlanta, GA. April 2016. *American Journal of Physical Anthropology* 159: 96-97

Sugiyama, LS, Liebert, MA, Madimenos, FC, **Blackwell, AD**, Urlacher, SS, Cepon-Robins, TJ, Gildner, T, Bribiescas, RG, Snodgrass, JJ. From foraging to Facebook: Market integration and health among the Shuar of Southeastern Ecuador. American Association of Physical Anthropologists, Atlanta, GA. April 2016. *American Journal of Physical Anthropology* 159: 307

Barrett, TM, Liebert, MA, Eick, G, Ridgeway-Diaz, JG, Madimenos, FC, **Blackwell, AD**, Sugiyama, LS, Snodgrass, JJ. The interrelationship of cytomegalovirus and Epstein-Barr virus

antibodies among Shuar of Amazonian Ecuador. American Association of Physical Anthropologists, Atlanta, GA. April 2016. *American Journal of Physical Anthropology* 159: 87

2015

Blackwell, AD, Tamayo, M, Beheim, B, Trumble, BC, Stieglitz, J, Hooper, P, Martin, M., Kaplan, H, Gurven, M. Infection with helminths affects fecundity and age of first pregnancy in human females, Human Behavior and Evolution Society, Columbia, MO. May 29, 2015

Blackwell, AD, Tamayo, M, Beheim, B, Trumble, BC, Stieglitz, J, Hooper, P, Kaplan, H, Gurven, M. Effects of Parasitism on Fecundity and Life History in Human Females. Population Association of America, San Diego, CA. April 30, 2015.

McAllister, LS, Garcia, G, **Blackwell, AD**, Gurven, MD. Who Reaps the Rewards and Who Pays the Costs of Precocious Investment in Reproduction? Adolescent Reproduction in the Bolivian Amazon. Population Association of America, San Diego, CA. April 2015.

Blackwell, AD, Tamayo, M, Beheim, B, Trumble, BC, Stieglitz, J, Hooper, P, Kaplan, H, Gurven, M. Infection with helminths affects fecundity and age of first pregnancy in human females, California Workshop on the Evolutionary Social Sciences, San Louis Obispo, CA. April 25, 2015.

Garcia, A, **Blackwell, AD**. Does subjective SES predict stress and inflammation in Honduran immigrants and Utilian natives? California Workshop on the Evolutionary Social Sciences, San Louis Obispo, CA. April 25, 2015.

Blackwell, AD, Tamayo, M, Beheim, B, Trumble, BC, Stieglitz, J, Hooper, P, Kaplan, H, Gurven, M. Effects of Parasitism on Fecundity and Life History in Human Females. American Association of Physical Anthropologists, St. Louis, MI. March 2015. *American Journal of Physical Anthropology* 156(S60): 86. DOI: 10.1002/ajpa.22718

Trumble, BC, **Blackwell, AD**, Emery Thompson, M, Stieglitz, J, Gurven, M, Kaplan, H. Testing the steroid-immunocompetence handicap hypothesis among Tsimane Forager-Horticulturalists. Human Biology Association. St. Louis, MI, March 2015. *American Journal of Human Biology* 27(2): 290. DOI: 10.1002/ajhb.22700

Garcia, A, **Blackwell, AD**. Inflammation, parasite load, socioenvironmental factors and metabolic syndrome on the island of Utila, Honduras. American Association of Physical Anthropologists, St. Louis, MI. March 2015. *American Journal of Physical Anthropology* 156(S60): 140. DOI: 10.1002/ajpa.22718

Urlacher, SS*, **Blackwell, AD***, Liebert, MA, Madimenos, FC, Cepon-Robins, TJ, Gildner, TE, Snodgrass, JJ, Sugiyama, LS. The Shuar Health and Life History Project: Height, weight and body mass index references for the indigenous Shuar of Ecuador. Human Biology Association. St. Louis, MI, March 2015. *American Journal of Human Biology* 27(2): 290. DOI: 10.1002/ajhb.22700

Hodges-Simeon, CR, Gurven, M, **Blackwell, AD**, Gaulin, JC. Steroid hormones and mucosal immunity in Bolivian male adolescents. Human Biology Association. St. Louis, MI, March 2015. *American Journal of Human Biology* 27(2): 270. DOI: 10.1002/ajhb.22700

Liebert, MA, Ridgeway-Diaz, JG, Snodgrass, JJ, Madimenos, FC, **Blackwell, AD**, Cepon-Robins, TJ, Sugiyama, LS. The Shuar Health and Life History Project: lifestyle incongruity and immune function among the indigenous Shuar of Amazonian Ecuador. Human Biology Association. St. Louis, MI, March 2015. *American Journal of Human Biology* 27(2): 273. DOI: 10.1002/ajhb.22700

Blackwell, AD, Tamayo, M, Beheim, B, Trumble, BC, Stieglitz, J, Hooper, P, Kaplan, H, Gurven, M. A different kind of cooperative breeding: roundworm infection increases odds of conception in human females. The International Society for Evolution, Medicine, & Public Health Inaugural Meeting, Tempe, AZ. March, 2015. <https://vimeo.com/123741344>

Garcia, A, **Blackwell, AD**. Does subjective SES predict stress and inflammation in Honduran immigrants and Utilian natives? The International Society for Evolution, Medicine, & Public Health Inaugural Meeting, Tempe, AZ. March, 2015.

2014

Blackwell, AD, Jaeggi, A, Stieglitz, J, von Rueden, C, Kaplan, H, Gurven, M. Inequality among forager-horticulturalists is associated with stress and depression, but not poorer health. Human Biology Association, Calgary, Ontario, Canada. April 2014. *American Journal of Human Biology* 26(2) 260

Garcia, A, Loustalot, C, **Blackwell, AD**. Subjective SES and Metabolic Syndrome on the Island of Utila, Islas de Bahia, Honduras. Human Biology Association, Calgary, Ontario, Canada. April 2014. *American Journal of Human Biology* 26(2) 264

Madimenos, FC, Liebert, MA, Cepon-Robins, TJ, Gildner, TE, Urlacher, SS, **Blackwell, AD**, Snodgrass, JJ, Sugiyama, LS. The Shuar Health and Life History Project: Hypertriglyceridemia among Cross-Cutucu Shuar-Exploring etiologies and prevention strategies. Human Biology Association, Calgary, Ontario, Canada. April 2014. *American Journal of Human Biology* 26(2): 271-272

Cepon-Robins, TJ, Liebert, MA, Gildner, TE, Madimenos, FC, Urlacher, SS, **Blackwell, AD**, Snodgrass, JJ, Sugiyama, LS. The Shuar Health and Life History Project: Chronic and infectious disease burden among the Shuar-The complicated nature of epidemiological transitions. Human Biology Association, Calgary, Ontario, Canada. April 2014. *American Journal of Human Biology* 26(2): 261-262

Sugiyama, LS, Madimenos, FC, Liebert, MA, Urlacher, SS, Cepon-Robins, TJ, **Blackwell, AD**, Gildner, TE, Gandolfo, TR, Colehour, A, Bribiescas, RG, Snodgrass, JJ. Getting a grip on phenotypic quality: Shuar Health and Life History Project analysis of grip strength as an

indicator of phenotypic quality and health. American Association of Physical Anthropologists, Calgary, Ontario, Canada. April 2014. *American Journal of Physical Anthropology* 153: 249

Emory Thompson, M., Beheim, BA, **Blackwell, AD**, Stieglitz, J, Trumble, BC, Gurven, M, Kaplan, H. Immunosenesence in Tsimane forager-horticulturalists. American Association of Physical Anthropologists, Calgary, Ontario, Canada. April 2014. *American Journal of Physical Anthropology* 153: 114

2013

Blackwell, AD, Stieglitz, J, Kaplan, H, Gurven, M. A life history perspective on development and senescence of immune function in non-Western populations. American Anthropological Association - Evolutionary Anthropology Society, Chicago, IL, November, 2013

Blackwell, AD, Jaeggi, A, Stieglitz, J, von Rueden, C, Hooper, P, Gurven, M, Kaplan, H. Wealth, Inequality, Social Capital, Health, and Life History Strategy in Tsimane Forager-Horticulturalists. Human Behavior and Evolution Society, Miami, FL, July 2013

Garcia, A, **Blackwell, AD**. Field Friendly Methods for Measuring Immune Function in Behavioral Ecology and Evolutionary Psychology. Human Behavior and Evolution Society, Miami, FL, July 2013

Pisor, AC, Gurven, M, **Blackwell, AD**, Kaplan, H, & Yetish, G. Patterns of senescence in physical fitness: VO₂max in subsistence and industrialized populations. California Workshop on Evolutionary Perspectives of Human Behavior, San Louis Obispo, CA, May 2013

McAllister, L, **Blackwell, AD**, Kaplan, H, Gurven, M. Early growth predicts earlier reproduction, but earlier reproduction limits adolescent growth: Teen pregnancy and growth in the Bolivian Amazon. California Workshop on Evolutionary Perspectives of Human Behavior, San Louis Obispo, CA, May 2013

Garcia, A, **Blackwell, AD**. Field Friendly Methods for Measuring Immune Function in Behavioral Ecology and Evolutionary Psychology. California Workshop on Evolutionary Perspectives of Human Behavior, San Louis Obispo, CA, May 2013

2012

Blackwell, AD, Kaplan, H, Maldonado Suarez, I, Stieglitz, J, Gurven, M. Trade-offs between current and future immune defense: Naïve and memory T-cell populations are associated with differential growth outcomes in an indigenous Amazonian population. American Anthropological Association - Evolutionary Anthropology Society, San Francisco, CA, November, 2012

Stieglitz, J, Gurven, M, **Blackwell, AD**, Quispe Gutierrez, R, Kaplan, H. Modernization, Sexual Risk-Taking, and Gynecological Morbidity Among Bolivian Forager-Horticulturalists. American Anthropological Association - Evolutionary Anthropology Society, San Francisco, CA, November, 2012

Kaplan, H, **Blackwell, AD**, Stieglitz, J, Hooper, P, Emery Thompson, M, Gurven, M. Rapid depletion of naive CD4 cells is associated with a compensatory increase in Natural Killer cells in a subsistence population under high pathogen stress. Human Behavior and Evolution Society, Albuquerque, NM, June 2012

McAllister, L, **Blackwell, AD**, Gurven, M, Garcia, G. Does Teenage Pregnancy Compromise Maternal and Infant Growth? Human Behavior and Evolution Society, Albuquerque, NM, June 2012

Blackwell, AD, Maldonado Suarez, I, Stieglitz, J, Gurven, M, Kaplan, H. Trade-offs between current and future immune defense: Naïve and memory T-cell populations are associated with differential growth outcomes in an indigenous Amazonian population. 6th Annual California Workshop on Evolutionary Perspectives of Human Behavior. May 4-6 2012.

Blackwell, AD, Maldonado Suarez, I, Stieglitz, J, Gurven, M, Kaplan, H. Reductions in helper T-cells and increases in natural killer cells are associated with poorer growth in an indigenous Amazonian population. American Association of Physical Anthropologists, Portland, OR. April 2012. *American Journal of Physical Anthropology* 147(S54): 100

Sugiyama, LS, Madimenos, FC, Liebert, MA, **Blackwell, AD**, Cepen, TJ, Snodgrass, JJ. Measures of market integration and their effects on health among Indigenous Shuar of Ecuadorian Amazonia. Human Biology Association, Portland, OR. April, 2012. *American Journal of Human Biology* 24(2)

2011

Blackwell, AD, Trumble, BC, Von Rueden, C, Stieglitz, J, Cummings, D, Emory Thompson, M, Snodgrass, JJ, Fitzgerald, E, Shattuck-Faegre, H, Gurven, M, Kaplan, H. Don't bring your cough to the gun show: Testosterone, immunocompetence, strength and dominance in an Amazonian horticultural population. Human Behavior and Evolution Society, Montpellier, France, June 2011

Blackwell, AD, Gurven, M, Sugiyama, LS, Madimenos, FC, Liebert, MA, Martin, M, Kaplan, H, Snodgrass, JJ. Can higher pathogen prevalence lead to better growth? Epidemiological patterns in growth and immunoglobulin E in two Amazonian populations. Human Biology Association, Minneapolis, MN. April, 2011. *American Journal of Human Biology* 23(2)

Ridgeway-Diaz, JG, Shattuck-Faegre, H, **Blackwell, AD**, Madimenos, FC, Liebert, MA, Squires, EC, Sugiyama, LS, Snodgrass, JJ. The Shuar health and life history project: Epstein-Barr virus and market integration in the Indigenous Shuar of Ecuadorian Amazonia. Human Biology Association, Minneapolis, MN. April, 2011. *American Journal of Human Biology* 23(2)

Rueckert, TJ, Snodgrass, JJ, Liebert, MA, Madimenos, FC, **Blackwell, AD**, Sugiyama, LS. The Shuar health and life history project: Effects of market integration and diet on hemoglobin in two lowland Ecuadorian populations. Human Biology Association, Minneapolis, MN. April, 2011. *American Journal of Human Biology* 23(2)

Shattuck-Faegre, H, Ridgeway-Diaz, JG, **Blackwell, AD**, Madimenos, FC, Liebert, MA, Squires, EC, Sugiyama, LS and Snodgrass, JJ. The Shuar Health and Life History Project: immune pathways and Epstein-Barr virus. Human Biology Association, Minneapolis, MN. April, 2011. *American Journal of Human Biology* 23(2)

Liebert, MA, Snodgrass, JJ, **Blackwell, AD**, Madimenos, FC, Cepon, TJ, Sugiyama, LS. The Shuar Health and Life History Project: immunoglobulin E, C-reactive protein, and cardiovascular and metabolic health among the indigenous Shuar of Ecuador. Human Biology Association, Minneapolis, MN. April, 2011. *American Journal of Human Biology* 23(2)

Madimenos, FC, Snodgrass, JJ, **Blackwell, AD**, Liebert, MA, Sugiyama, LS. Reproductive trade-offs and bone health among Shuar and Colonos females from Amazonian Ecuador. Human Biology Association, Minneapolis, MN. April, 2011. *American Journal of Human Biology* 23(2)

Cepon, TJ, Liebert, MA, Madimenos, FC, Sugiyama, LS, **Blackwell, AD**, Leonard, WR, Tarskaia, LA, Klimova, TM, Krivoschapkin, VG, Snodgrass, JJ. Variation in cardiovascular disease risk in response to market integration in two transitioning populations. American Association of Physical Anthropologists, Minneapolis, MN. April 2011. *American Journal of Physical Anthropology* 144(S52): 107

Pisor, AC, Gurven, M, Kaplan, H, **Blackwell, AD**. Maximal oxygen uptake among the Tsimane: role of acculturation? American Association of Physical Anthropologists, Minneapolis, MN. April 2011. *American Journal of Physical Anthropology* 144(S52): 239

2010

Blackwell, AD, Snodgrass, JJ, Madimenos, FC, Liebert, M, Sugiyama, LS. Parasite transmission, resource competition, and life history allocations: The effects of family composition on the growth and immune function of Shuar children. Human Behavior and Evolution Society, Eugene, OR, June 2010

Liebert, MA, Snodgrass, JJ, **Blackwell, AD**, Madimenos, FC, Sugiyama, LS. Market integration, evolutionary mismatches, and the emergence of hypertension, high cholesterol and type 2 diabetes among indigenous Shuar of neo-tropical Ecuador. Human Behavior and Evolution Society, Eugene, OR, June 2010

Madimenos, FC, Snodgrass, J, **Blackwell, AD**, Liebert, MA, Sugiyama, LS. Female Reproduction History and Bone Health among Shuar and Colonos from the Ecuadorian Amazon: A Life History Theory Perspective. Human Behavior and Evolution Society, Eugene, OR, June 2010

Blackwell AD, Snodgrass JJ, Gurven M, Kaplan H, Madimenos F, and Sugiyama, LS. Exposure to parasites and development of immune response? Age profile of immunoglobulin E (IgE) in the Shuar of Eastern Ecuador, the Tsimane of Bolivia, and the U.S. NHANES. American Association of Physical Anthropologists, Albuquerque, NM. April 2010. *American Journal of Physical Anthropology* 141(S50): 68

Blackwell AD, Tiwia W, Sugiyama LS. Use of a pooled resource model to assess the effects of Shuar family members on juvenile growth across ecological contexts. Human Biology Association, Albuquerque, NM. April, 2010. *American Journal of Human Biology* 22(2):247-248

2009

Blackwell AD, Snodgrass JJ, Madimenos FC, Cepon TJ, Gandolfo TR, and Sugiyama LS. Are quantity-quality trade-offs reflected in the immune function of human children? Human Behavior and Evolution Society 2009, Fullerton, CA, May 28, 2009

Sugiyama LS, **Blackwell AD**, Snodgrass JJ, Madimenos FC, Cepon TJ, Gandolfo TR, Liebert MA. Growth, nutritional status, and health in an indigenous lowland Ecuadorian population: Effects of market integration and household ecology. Human Behavior and Evolution Society 2009, Fullerton, CA, May 28, 2009

Blackwell AD, Snodgrass JJ, Madimenos FC, Cepon TJ, Gandolfo TR, and Sugiyama LS. An analysis of the relationship between chronic stress, inflammation, and growth outcomes in Ecuadorian Shuar children. Northwest Anthropological Conference, Newport, OR, April 10, 2009

Blackwell AD, Snodgrass JJ, Madimenos FC, Cepon TJ, Gandolfo TR, and Sugiyama LS. Trade-offs in immune function and growth in a rural Amazonian village. Human Biology Association, Chicago, IL. April 2, 2009. *American Journal of Human Biology* 21(2):247

Madimenos FC, Snodgrass JJ, **Blackwell AD**, Cepon TJ, Gandolfo TR, and Sugiyama LS. 2009. Physical activity measured using accelerometry in an indigenous lowland Ecuadorian population. Human Biology Association, Chicago, IL. April 2, 2009. *American Journal of Human Biology* 21(2):260

Gandolfo TR, Snodgrass JJ, **Blackwell AD**, Madimenos FC, Cepon TJ, and Sugiyama LS. 2009. Shuar sleep patterns: a preliminary study of sleep duration and quality in an Indigenous Amazonian society. Human Biology Association, Chicago, IL. April 2, 2009. *American Journal of Human Biology* 21(2):254

Snodgrass JJ, **Blackwell AD**, Madimenos FC, Cepon TJ, Gandolfo TR, and Sugiyama LS. 2009. Growth and nutritional status in an indigenous lowland Ecuadorian population. American Association of Physical Anthropologists, Chicago IL. April 2, 2009. *American Journal of Physical Anthropology* 138(S48):243

2008

Blackwell AD and Sugiyama LS. The influence of body shape on perceptions of age, sex, social status, health, and attractiveness. Human Behavior and Evolution Society 2008, Kyoto, Japan. June 4-8, 2008

Sugiyama LS and **Blackwell AD**. Life history, body morphology and health in a natural fertility Population: Implications for (sexual) attractiveness assessment psychology. Human Behavior and Evolution Society 2008, Kyoto, Japan. June 4-8, 2008

Blackwell AD and Sugiyama LS. The effects of market integration and life history tradeoffs on the growth of Shuar children. 33rd Annual Human Biology Association, Columbus, OH. April 9, 2008

2007

Blackwell AD and Sugiyama LS. Physical Attractiveness in a Ecologically Relevant Sample: WHR and body fat both contribute to male assessments of female attractiveness. Department of Anthropology Colloquium Series, University of Oregon, Eugene, OR. November 30, 2007

Blackwell AD, and Sugiyama LS. Is human self-sacrifice adaptive? A mathematical examination of cultural, ecological, and demographic variables contributing to suicidal self-sacrifice in humans. Human Behavior and Evolution Society, May 2007, Williamsburg, VA

Sugiyama LS, Sugiyama MS, **Blackwell AD**, and Barrett HC. Social niche cultivation among the Shiwiar of Ecuador. Human Behavior and Evolution Society, May 2007, Williamsburg, VA

Sugiyama LS, **Blackwell AD**, Pryor G, Pozo P, and Tiwia W. Life history tradeoffs and the health of Shuar juveniles of Morona-Santiago Ecuador. Human Behavioral and Evolution Society, May 2007, Williamsburg, VA

McClellan ME, **Blackwell AD**, Garrett EL, and Sugiyama LS. Women's preferences for male body types in long term and short term mating contexts. Human Behavior and Evolution Society, May 2007, Williamsburg, VA

Garrett EL, **Blackwell AD**, McClellan ME, and Sugiyama LS. The relative contributions of WHR and BMI to male perceptions of female attractiveness: What if the range of stimuli had greater evolutionary validity? Human Behavior and Evolution Society, May 2007, Williamsburg, VA

Blackwell AD. Placebos, Shamans, and Healthcare Adaptations: Examining the signs of illness as costly-signals among the Shuar of Ecuador. Department of Anthropology Colloquium Series, University of Oregon, Eugene, OR. February 16, 2007

2006

Blackwell AD. Middle-class Martyrs: Modeling the Fitness Effects of Palestinian Suicide Attack. 2006 Northwest Anthropological Conference, Seattle, WA. April 1, 2006

Blackwell AD. Reproduction and Self Destruction: The Behavioral Ecology of Palestinian Suicide Attack. Institute of Cognitive and Decision Sciences, University of Oregon, Eugene, OR. March 10, 2006

2005

Indest DW, Williams EE, Fireman M, Huckans MS, Loftis JM, Bjornson DL, Nelligan JA, Whitehead AJ, Zucker BL, **Blackwell AD**, Harms TA, & Hauser P. Universal mental health/substance abuse screening & education for veterans with hepatitis C. VA Best Practices in the Mental Healthcare Systems, Mesa AZ. September 9, 2005

Blackwell AD. Terrorism, Heroism, and Altruism: Kin selection and socio-religious cost-benefit scaling in Palestinian suicide attack. Human Behavior and Evolution Society 2005, Austin, TX. June 1-5, 2005

Blackwell AD. Terrorism, Heroism, and Altruism: Kin selection and socio-religious cost-benefit scaling in Palestinian suicide attack. Department of Anthropology Colloquium Series, University of Oregon, Eugene, OR. April 22, 2005

Blackwell AD. Religious Symbols of Society and the Evolution of Group-Reciprocity. Panel presentation on “Ritual, Myth, and Ideologies”, Society for the Anthropology of Religion Annual Meeting, Vancouver, B.C. April 8-11, 2005

2004

Huckans MS, **Blackwell AD**, Harms TA, Indest DW and Hauser P. Hepatitis C and Human Immunodeficiency Virus: Co-Infection Rates and Co-Testing Patterns Among Veterans. 55th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD), Boston, MA. October 22-November 2, 2004. *Hepatology* 40(Suppl. 1): 412A-413A

Harms TA, **Blackwell AD**, Huckans MS, Indest DW, and Hauser P. Hepatitis C Infection, Testing, and Treatment Rates in High-Risk Veterans with Severe Mental Illness and Substance Use Disorders. 55th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD), Boston, MA. October 22-November 2, 2004. *Hepatology* 40(Suppl. 1): 417A

Blackwell AD, Linardatos E, Whitehead AJ, Indest DW, Fireman M, and Hauser P. Use of Opioid Analgesics In Patients With Hepatitis C. Digestive Disease Week, New Orleans, LA. May 15-20, 2004. *Gastroenterology* 126(Suppl. 2): A698

Nelligan J, Indest DW, **Blackwell AD**, Sasaki A, Fireman M, and Hauser P. Antidepressant Use in Veterans with Hepatitis C. Digestive Disease Week, New Orleans, LA. May 15-20, 2004. *Gastroenterology* 126(Suppl. 2): A725

Fireman F, Whitehead AJ, Indest DW, **Blackwell AD**, and Hauser P. Justification for Routine Mental Health Screening in HCV Positive Veterans. VA Office of Research and Development Meeting, Washington, DC. April 2004

UNDERGRADUATE COURSES TAUGHT

Introduction to Biological Anthropology

An introduction to the field of biological anthropology: the study of human evolution, variation, and behavior. The pattern and process of evolution as it relates to hominins (living humans and their extinct bipedal relatives). Darwin's mechanism of natural selection, and the neo-Darwinian understanding of the

process of evolution. The biology, behavior, and evolutionary trends of nonhuman primates. Hominin fossil record and examine changes in locomotion, morphology, diet, and social structure that have occurred since we last shared a common ancestor with members of the genus *Pan*. Human biological variation.

Capstone: Hormones and Human Reproduction

The role of hormones, diet, and stress in the regulation of human reproduction, behavior, and physiology. Hormonal changes with menstruation, parenting, and pregnancy. The evolution of reproduction in humans and other species.

Developmental Plasticity and Evolution

Focus on genetics, epigenetics, and cultural evolution; how organisms develop differently in different environments; how developmental plasticity facilitates evolution; adaptive landscapes; genetic accommodation of phenotypic variation; reaction norms; variation and flexibility in immune function, growth, behavior. Emphasis on humans but with examples and applicability to other species.

Reproductive Ecology and Behavioral Endocrinology

Regulation of reproductive function by diet, energy balance, lactation, and social context. The role of hormones in the regulation of human reproduction, behavior, and physiology. Hormonal changes with parenting and pregnancy in men and women.

Human Growth and Development

Analyzes human growth and development from an evolutionary and cross-cultural perspective. Life stages from birth to death are considered, and contrasted with other primates. Other topics include brain evolution, fetal programming, sexual dimorphism, senescence, immunity, play, parental care.

Evolution of Human Sexuality

Includes basic genetics, physiology, and behavior. Evolution of sex, of the sexes, and of the role of sex in mammal, primate, and human behavior.

Methods in the Human Behavioral Sciences

Introduction to study design; fields of anthropology; introductory statistics; data collection and coding; how to read and understand scientific papers

Anthropology Capstone: Preparing for a Graduate Career in Anthropology

Prepares students to apply to graduate school in anthropology, including preparation of applications for admission and fellowships such as the NSF Graduate Research Fellowship.

Anthropology Capstone: Entering the Work Force with an Anthropology Degree

Prepares students with anthropology degrees to enter the work force by discussing potential career paths. Discussions with guest lectures. Preparation of resumes and job applications.

GRADUATE COURSES TAUGHT

Evolutionary and Cultural Perspectives on Religion

This course will examine religion as a suite of human behaviors and institutions that both vary cross-culturally and contain common elements across cultures. We will examine aspects of religion such as rituals, beliefs, myths, and meditation, from a variety of scientific, ethnographic, and symbolic approaches including as the product (or byproduct) of natural selection for cognitive adaptations, as social systems that have evolved through genetic or cultural evolution, as technologies that manipulate neurophysiology, and as symbolic systems of understanding and phenomenology.

Eco-immunology

This course is an introduction to eco-immunology, the study of how ecology and immunology interact. We will cover topics such as: 1) Fundamentals of the immune system 2) How immunity trades-off with other life history demands like growth and reproduction 2) Immune strategies and trade-offs between branches of immunity 3) Host-pathogen interactions, ecology, and coevolution 4) Immune-endocrine interactions, and 5) Methods for measuring immunity

Laboratory Methods in Biological Anthropology

Graduate introduction to the laboratory methods used in human biology for analyzing blood and saliva samples to determine levels of antibodies, hormones, and other biomarkers. The focus is on hands-on training and troubleshooting assay problems.

Applied Data Analysis in R

Graduate level workshop in data analysis using the R language. Focus is on practical applications to research questions, data management, and graphing. Topics vary by participants, but may include mixed models, non-linear modeling, writing loops and functions, manipulating data, interfacing with Access databases, matrix operations, contour plots, graphing of geographical data, etc.

Contemporary Topics in Biological Anthropology

Read and discuss professional literature in biological anthropology and related fields: evolutionary and life history theory, human biology, paleoanthropology, biomedical science and primatology. Course keeps students abreast of key developments in the field.

POSTDOCS AND RESEARCH ASSISTANTS SUPERVISED

Kelsey McCune, Postdoc 2019, Behavioral Flexibility in an Invasive Species: Functions, Mechanisms, Invasion Ecology, and Genetics

Zoe Johnson-Ulrich, Postdoc 2018, Behavioral Flexibility in an Invasive Species: Functions, Mechanisms, Invasion Ecology, and Genetics

Luisa Bergeron, Junior Specialist 2018-2019, Behavioral Flexibility in an Invasive Species: Functions, Mechanisms, Invasion Ecology, and Genetics

GRADUATE STUDENTS SUPERVISED

Michael Gaffney (WSU, PhD Committee Member)

Beatrice Caffè (WSU, MA Committee Member)

Amy Anderson (UCSB, In progress PhD Chair, 2018 MA Chair)

Carmen Hove (UCSB, PhD Committee Member, 2018 MA Chair)
Sarah Alami (UCSB, 2019 MA Committee Member)
Angela Garcia (UCSB, 2018 PhD Chair, 2015 MA Chair)
Lisa McAllister (UCSB, 2017 PhD Committee Member)

UNDERGRADUATE THESES AND RESEARCH SUPERVISED

Marilyne Tamayo (now @ U. Missouri)
Nikka Ryan Keivanfar (now @ 10X Genomics)
Sarah Bay
Michael Gaffney (now @ Washington State)
Cristina Gonzalez

STUDENT GRANTS AND AWARDS UNDER MENTORSHIP

2019	Graduate Student, Amy Anderson, NSF Dissertation Improvement Grant: “The effects of porous cranial lesions on adult health and the evidence for childhood anemia-driven skeletal changes in a living Amazonian subsistence”
2017	Graduate Student, Angela Garcia, Wenner-Gren Foundation Dissertation Grant for “Do Neuroendocrine-Immune Interactions Mediate Links between Social Disparities and Metabolic Risk among Honduran Immigrant Women?”
2017	Undergraduate, Sarah Bay, UCSB Undergraduate Slam Presentation Finalist for “Suppression or Redistribution? Effects of Acute Changes in Testosterone on the Immune System in Human Males”
2016	Undergraduate, Sarah Bay, UCSB Undergraduate Slam 3 rd Place for “Immune Function and Acute Testosterone Changes in Male Undergraduates”
2015	Graduate Student, Carmen Hove, NSF GRFP Fellowship for “Physiological, Genetic, and Environmental Interactions Influencing Fetal Tolerance”
2015	Graduate Student, Amy Anderson, NSF GRFP Honorable Mention for “Anemia in a Subsistence-Level Amazonian Population and Its Implications for Bioarchaeology”

PROFESSIONAL SERVICE

Journal Reviewing

General Journals: *PNAS*, *PLoS One*, *Philosophical Transactions R Soc B*

Anthropology Journals: *American Journal of Human Biology*, *American Journal of Physical Anthropology*, *Human Nature*, *Annals of Human Biology*, *International Journal of Paleopathology*, *Evolutionary Anthropology*

Psychology Journals: *Behavioral and Brain Sciences*, *Evolution and Human Behavior*, *Evolutionary Behavioral Sciences*

Biological and Medical Journals: *Nature Ecology & Evolution*, *Journal of Evolutionary Biology*, *Biodemography and Social Biology*, *Allergy*, *Evolution*, *Medicine*, and *Public Health*, *Computers in Biology and Medicine*, *Computer Methods and Programs in Biomedicine*, *International Journal for Parasitology*, *Memorias do Instituto Oswaldo Cruz*

Other: *SAGE publications textbook reviews*

Funding Agency Reviewing:

2017-2019. American Association of Physical Anthropologists Cobb Professional Development Grant Proposals

2013, 2014, 2016, 2017. Ad-hoc reviewer for the National Science Foundation

2012. Ad-hoc reviewer for the Leakey Foundation

Departmental and University

2019-2020 WSU Internal Grants Review (International Travel and Boeing Graduate Fellowship)

2019-2020 WSU Association of Anthropology Graduate Students Faculty Advisor

2019-2020 WSU Anthropology Colloquium Coordinator

2019 WSU Anthropology Journal Club Coordinator

2016-2018. UCSB Dept. of Anthropology, Undergraduate Advisor and Undergraduate Committee Chair

2016. UCSB Undergraduate Research and Creative Activity Grant Reviewer

2013-2018. UCSB Dept. of Anthropology, Web Committee Chair

2012-2016. UCSB Dept. of Anthropology, Graduate Committee

2015. UCSB Dept. of Anthropology, Biological Anthropologist Search Committee

2015. UCSB Dept. of Anthropology, Ecological Anthropologist Search Committee

2014. UCSB Dept. of Anthropology, Ecological Anthropologist Search Committee

2012-2014. UCSB Dept. of Anthropology Colloquium Committee

Academic Societies

Membership: Human Biology Association; American Association of Physical Anthropologists;

International Society for Evolution, Medicine, and Public Health (Founding Member); Evolutionary Anthropology Society; Human Behavior and Evolution Society

2018. Program Committee: Human Behavior and Evolution Society Meeting, Amsterdam, Netherlands

2018. Early Career Award Committee: Human Behavior and Evolution Society Meeting, Amsterdam, Netherlands

2018. Host and Lead Organizer: California Workshop in the Evolutionary Social Sciences (C-WESS), Santa Barbara, CA, May 2018.

2016-2018. Elected member of the Human Biology Association Nominations and Elections Committee

2016. Expert panel member for discussion of Gender and Academic Achievement at the California Workshop on the Evolutionary Social Sciences, San Louis Obispo, CA. May 7, 2016.

2010. Conference webmaster for the Human Behavior and Evolution Society annual meeting in Eugene, OR

2006-2009. Elected Student Representative: Human Behavior and Evolution Society