

# HEB SENIOR UNDERGRADUATE THESES, 2015-2020

These titles, and others from 2009-2014, are available from the HEB concentration advisors.

Most theses from 2008 and earlier are searchable in HOLLIS

YEAR	STUDENT	THESIS TITLE	ADVISOR
2020	Baccouche, Basil	<i>Giraffe Paradox: Investigating the Absence of Hypertrophy-Related Exercise Impairment in the Modern Giraffe as a Natural Animal Model for Resistance to Diastolic Heart Failure in Humans</i>	Barbara Natterson-Horowitz
	Diggins, Caroline	<i>A Phylogenetic Gnotobiotic Mouse Model: A Comparative Analysis of the Functional Uniqueness of the Human Microbiome</i>	Rachel Carmody
	Farber, Matt	<i>Studying the Effects of Voluntary Exercise in a Murine Model of Colitis and the Role of Intestinal Alkaline Phosphatase</i>	Richard Hodin (Massachusetts General Hospital)
	Kaufman, Lourdes	<i>From Pleistocene Diets to Anti-Parkinsonian Drugs: Understanding the Role of the Human Enteric Microbiome in the Metabolism of Ingested L-dopa</i>	Emily Balskus (Chemistry & Chemical Biology)
	Kelly, Madeleine	<i>Environmental Change Related to the Emergence of the Genus Homo in the Turkana Basin, 3-44-1.30 Ma</i>	Neil Roach
	Meeks, Gillian	<i>Factors Influencing Ovarian Suppression in Female Distance Runners</i>	Susan Lipson
	Ojeaburu, Sandra	<i>Despite All Odds: Biological Foundations of Social Support Networks for Black Mothers in Mississippi</i>	Youssef Carter (Anthropology)
	Onuoha, Chioma	<i>Evolutionary Adaptivity of Gestational Hypertension in Cases of Gestational Diabetes Mellitus</i>	Camille Powe (Massachusetts General Hospital)
	Ribordy, Mathilde	<i>The Use of Aquatic Resources in Human Evolution: GaJ17, a Late Pleistocene Locality at Koobi Fora, Kenya</i>	Neil Roach & Amy Clark (Anthropology)
	Sevilla, Teddy	<i>Reciprocal Grooming in Olive Baboons</i>	Isaac Schamberg
2019	Benson, Sophie	<i>Water-Dipping Tool Use in Comoé Chimpanzees: Another Female-Biased Tool Behavior?</i>	Richard Wrangham
	Bolze, Andrew	<i>The Effects of Endurance Running on the Gut Microbiota</i>	Rachel Carmody
	Eliason, Sonja	<i>Bring Out Your Dead: An Investigation of the Co-evolution of H. sapiens and Y. pestis</i>	Bridget Alex
	Gillinov, Stephen	<i>Effect of Footwear on Leg and Longitudinal Arch Stiffness during Running</i>	Nick Holowka
	Hansen, Oliver	<i>The effects of toe springs in footwear on walking biomechanics</i>	Nick Holowka
	Katz, Danielle	<i>The Phylogeny of Atrial Fibrillation (AF): The Power of Comparative Arrhythmology to Generate Novel Hypotheses on the Origin of Vulnerability to AF</i>	Barbara Natterson-Horowitz
	Landau, Rebecca	<i>Breaking it Down: Investigating the Effects of Physical Activity and Loading Substrate on the Development of Knee Osteoarthritis</i>	Ian Wallace
	Litwin, Edward	<i>The Social Side of Evolution Understanding</i>	Bridget Alex
	Moore, Brandi	<i>Exploring the effect of wine and coffee polyphenols on the gut microbiota</i>	Rachel Carmody
	Riew, Grant	<i>Obesity and the Pathogenesis of Knee Osteoarthritis: Assessing the Relative Influence of Joint Stress and Visceral Adiposity</i>	Ian Wallace
	Rushin, Claire	<i>The Long-term Effects of Bariatric Surgery on Bone: Examining Energy Allocation as Evolutionary Adaptation and Physiological Constraint</i>	Elaine Yu (Massachusetts General Hospital)
	Young, Niki	<i>Hormones and Online Dating: Endocrine Response to Modern Mating Interactions</i>	Max Krasnow (Psychology)

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2018	Monilola Awolesi	<i>Tactile Communication during Cooperation: Exploring the Effect of Sex on Dyadic Bond Formation and Maintenance</i>	Bridget Alex
	Mia Charifson	<i>Learning Transfer in Adolescence: The Effects of Previous Learning On Later Cognitive Control</i>	Leah Somerville (Psychology)
	Tess Cushing	<i>Stick-carrying in Juvenile Chimpanzees: Imitation or Pretense?</i>	Richard Wrangham & Paul Harris
	Saige Daniel	<i>Characterizing the Pubertal Transition in Young Girls: The Dynamics of Growth, Energy Balance, and Insulin Relative to Menarche</i>	Susan Lipson
	Cara Jacobson	<i>The Function of Male Greetings in a Kibale Olive Baboon Troop</i>	Vivek Venkataraman
	Cookie Koch	<i>Effect of Shoe Type on Foot Development and Function in Children</i>	Daniel Lieberman
	Elena McCormick	<i>Reconstructing Pleistocene Seasonality in the Cradle of Humankind: An analysis of stable oxygen isotopes in fossil primate and ungulate tooth enamel</i>	Noreen Tuross
	Alexander Richards	<i>Adjustability of the Stiffness of the Medial Longitudinal Arch of the Human Foot</i>	Nick Holowka
	Laura Schell	<i>Effect of traditional and industrial food preservation agents on the gut microbiota</i>	Rachel Carmody
	Cameron Shaw	<i>Functional Testing of Height Variants in Articular Chondrocytes</i>	Terry Capellini
	Elianna Shwayder	<i>When Hairy Met Sally: Male Motivations in Heterosexual Friendships Among Forest-Dwelling Olive Baboons</i>	Vivek Venkataraman
	Emily Tran	<i>Glossopharyngeal Innervations of Novel Taste Cells on the Circumvallate Papillae of the Tongue</i>	Stephen Liberles (Harvard Medical School)
	Siddharth Yarlagadda	<i>When Evolution Hurts: Functional Testing of Candidate Variants Associated with Increased Susceptibility to Osteoarthritis</i>	Terry Capellini
2017	Lindsey Hagberg	<i>Behavioral Correlates of Aging in Male Chimpanzees</i>	Zarin Machanda
	Manizha Kholmatov	<i>The Observer Effect: How Looking at Costs and Benefits Impacts Cooperative Behavior</i>	Erez Yoeli (Program for Evolutionary Dynamics)
	Cecilia Laguarda	<i>Mean Girls: An Analysis of Female-Female Relationships in the Kanyawara Olive Baboon Troop</i>	Zarin Machanda
	Hannah Levenson	<i>Self-Deprecatory Humor As a Costly Signal of Status</i>	Bethany Burum (Psychology)
	Delfina Martinez-Pandiani	<i>Reconciliation in Homo sapiens: Behavioral Perspectives on the Human Post-Conflict Period</i>	Joyce Benenson & Richard Wrangham
	Shivangi Parmar	<i>An Analysis of Non-Kin Male-Female Relationship Dynamics In the Kibale Olive Baboon Troop</i>	Zarin Machanda
	Hailey Reneau	<i>The Cost of Service: Sex Differences in the Effects of Social Support on PTSD in U.S. Veterans</i>	Carole Hooven
	Andrew Roney	<i>The Effects of Footwear on Knee Moments: Footwear Causes Increased Peak Knee Adduction Moments Associated with Knee Osteoarthritis</i>	Daniel Lieberman & Nick Holowka
	Jamie Tanzer	<i>The Role of Laundry Detergent-Induced Damage to the Skin Barrier in the Development of Food Allergy</i>	Heather Shattuck-Heidorn (ME State Refugee Health Coordinator) & Michiko Oyoshi (Harvard Medical School)
	Nazow Tarakai	<i>Negating Kinship: Understanding Taliban Recruitment and Support through Pastoralist Subsistence Strategy</i>	Bridget Alex & Richard Wrangham
	Emily Venable	<i>Nutritional Contribution, Sexual Dimorphism, and Biological Implications of Rotting Wood Consumption by Wild Chimpanzees in Kibale National Park</i>	Richard Wrangham
	Hunter York	<i>Ethnographic and Perceptual Evidence for an Evolved Function of Music as a Coalition Signaling System</i>	Max Krasnow (Psychology)

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2016	Pamela Chen	<i>Beyond Twenty-Eight Days: Modeling energetic regulation of menstrual cycle length using urinary C-peptide and urinary free cortisol</i>	Susan Lipson
	Connie Hsu	<i>The impact of athletic identity on pain-related distress and functioning in young athletes: an evolutionary perspective</i>	Susan Lipson
	CJ Jaramillo	<i>The Relationship Between Footwear, Arch Stiffness, and Intrinsic Pedal Musculature in Dancers</i>	Daniel Lieberman
	Bernadette Lim	<i>Beyond the Maternal-Infant Bond: Exploring Partner Influence on Breastfeeding and Co-sleeping</i>	Peter Ellison
	Claire Lo	<i>Born to Run Slowly: The Influence of Exercise Intensity on Serum C-reactive Protein as a Measure of Cardiovascular Disease Risk</i>	Daniel Lieberman
	Kim Reimold	<i>(MBB) Fat and Fecund: How Energy Status and Fat Distribution Shape Reproduction in a Modern Population of Females</i>	Daniel Lieberman & Carole Hooven
	Lauren Stone	<i>(MBB) Central Ghrelin Resistance: A Newly Discovered Consequence of Chronic Stress, with Implications for Stress-associated Mental Illness</i>	Peter Ellison
	Olivia Turner	<i>A Non-Fig Fruit a Day Keeps the Illness Away: A Study of Illness and Injury in Wild Chimpanzees</i>	Zarin Machanda
	Hursuong Vongsachang	<i>Changes in Hair Cortisol and Isotopic Values in College Freshmen: A Study of the Freshman 15</i>	Peter Ellison
	Taylor Weary	<i>Sources of Variation in Fecal Particle Size for Free-Ranging Eastern Chimpanzees (Pan troglodytes schweinfurthii) in Kibale National Park, Uganda: Influence of Age and Food Type</i>	Richard Wrangham
	Wilder Wohns	<i>Exploring the Genomic Regulatory Architecture of Limb Bud Development and the Evolution of Limb Proportions in Mice and Primates</i>	Terry Capellini
2015	Sarah Abrams	<i>(MBB) Go for a run and let off some steam: cortisol is a biomarker of the long-term stress-relieving effects of exercise</i>	Susan Lipson
	Claire Edelson	<i>Sexual Coercion in a Western Human Population: Examining Patterns of Male Aggression Towards Female Partners</i>	Zarin Machanda
	Adrian Fanucci-Kiss	<i>Mother Knows Best: Ecological Factors Shaping Maternal Sociality in Dusky Dolphins (Lagenorhynchus obscurus)</i>	Zarin Machanda
	Ann Finkel	<i>(MBB) "It's Not Fair that James Gets All of Them": A Cross-Cultural Comparison on the Development of Third-Party Intervention</i>	Felix Warneken (Psychology)
	Rob Gunzenhauser	<i>Gdf5 cis-Regulation of the Shoulder Joint and Evolution of the Primate Scapula</i>	Terry Capellini
	Julia Hyman	<i>Social Relations in Red Colobus Monkeys</i>	Richard Wrangham
	Taylor Reiter	<i>A Starch Contrast: Evolution of Amylase Copy Number in Dogs and Humans</i>	Terry Capellini
	Patrick Schiller	<i>The Five Second Rule: A Novel Method for Collecting Wild Chimpanzee Saliva Samples; A Renewed Method for Understanding the Human Oral Microbiome</i>	Rachel Carmody
	Jenny Wong	<i>An Investigation of the Infant Safety Hypothesis in Kibale Red Colobus Monkeys (Procolobus tephrosceles)</i>	Richard Wrangham