EMILY E. NOBLE. Ph.D.. FTOS

Curriculum Vitae, updated May 2024
Department of Nutritional Sciences, University of Georgia 305 Sanford Dr, Athens, GA 30602
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EDUCATION AND POSTDOCTORAL TRAINING

B.A. in Natural Science (May 2001): Hampshire College, Amherst, MA

M.S. in Nutrition (January 2010): University of Minnesota, Minneapolis, MN

Ph.D. in Nutritional Biochemistry (May 2014): University of Minnesota, Minneapolis, MN **Postdoctoral Research in Neuroscience** (June 2014-July 2015): University of California (Los Angeles, CA); Fernando Gomez-Pinilla Lab

Postdoctoral Fellow in Neuroscience (July 2015-Sept 2018): University of Southern California (Los Angeles, CA); Scott Kanoski Lab

ACADEMIC APPOINTMENTS

Research Assistant Professor (September 2018-July 2019): University of Southern California Dornsife College of Letters, Arts, and Sciences; Department of Biological Sciences, Human and Evolutionary Biology Section (Los Angeles, CA)

Assistant Professor (Tenure Track) (August 2019-present) University of Georgia College of Family and Consumer Sciences; Department of Nutritional Sciences (Athens, GA)

Associate Professor (Tenured) (August 2023-present) University of Georgia College of Family and Consumer Sciences; Department of Nutritional Sciences (Athens, GA)

Secondary Appointments

Neuroscience Graduate Program faculty, University of Georgia Integrated Life Sciences faculty, University of Georgia

RESEARCH SUPPORT

<u>Current Funding</u> K01: Career Development Award, KDK118000 Total costs

\$764, 295

NIH/NIDDK (3/26/2019-3/26/2024)

MIN/MIDDR (3/20/2019-3/20/2024)

Title: Melanin Concentrating Hormone and the Neural Regulation of Feeding

Role: Principal Investigator

Institutional Affiliation: University of Georgia, Athens, GA

R03: Small Research Grant Program, DK128306

\$213,000

NIH/NIDDK (4/1/2021-3/31/2023 (extended))

Title: Central Melanin Concentrating Hormone: Neural Pathways and Obesity

Role: Principal Investigator

Institutional Affiliation: University of Georgia, Athens, GA

Obesity Initiative Resubmission Grant (UGA)

\$10,000

Title: Impact of Diet and Exercise on the Neural Control of Eating Behaviors

(11/01/2023-6/30/2024) Role: Principal Investigator Institutional Affiliation: University of Georgia, Athens, GA

Pending funding

R01: Research Project Grant Program, DK140275

NIH/NIDDK (12/1/2023-11/30/2028) (Pending, July 1 start date)

Title: Diet and the Neurodevelopment of Impulsivity

Role: Principal Investigator

Institutional Affiliation: University of Georgia, Athens, GA

Completed Awards

Obesity Initiative Seed Grant (UGA)

\$10,000

Title: Adolescent obesogenic Western Diet consumption and the development of trait impulsivity (11/01/2022-6/30/2023)

Role: Principal Investigator

Institutional Affiliation: University of Georgia, Athens, GA

Obesity Initiative Seed Grant (UGA)

\$10.000

Title: Discovering the role and regulation of neuronal ciliary length in obesity/energy

balance (11/01/2021-6/30/2022) Role: Principal Investigator

Institutional Affiliation: University of Georgia, Athens, GA

Obesity Initiative Seed Grant (UGA)

\$12, 854

Title: Diet induced neuronal and mitochondrial network remodeling as a mechanism for dysregulated appetite in obesity (01/01/2021-06/30/2021)

Role: Principal Investigator

Institutional Affiliation: University of Georgia, Athens, GA

Early Career Grant Challenge Award

\$25,000

The Obesity Society (2018-2019)

Title: Effects of early life sugar consumption on cognitive function during adulthood

Role: Principal Investigator

Institutional Affiliation: University of Southern California, Los Angeles, CA

F32: Ruth Kirschstein National Research Service Award (NRSA), DK111158

\$118,332

NIH/NIDDK (7/1/17- 7/1/19)

Title: Early life sugar consumption: effects on cognitive impairment and susceptibility to obesity

Role: Principal Investigator

Institutional Affiliation: University of Southern California, Los Angeles, CA

T32: Minnesota Obesity Prevention Training Grant, T32DK083250

NIH/NIDDK (5/13/13-5/13/14)

Goals: This funding supported my doctoral research on the hypothalamic regulation of

energy balance at the University of Minnesota

Role: Graduate Student Trainee

Institutional Affiliation: University of Minnesota, Minneapolis, MN

SCIENTIFIC PUBLICATIONS

<u>Peer-reviewed journal publications (in reverse chronological order)</u> **h-index: 25**; * indicates co-corresponding

2023

- Spaulding, MO., Hoffman, JR., Madu GC., Lord, MN., Soares Iizuka, CS., Myers, KP., Noble EE., "Adolescent food insecurity in female rodents and susceptibility to dietinduced obesity" *Physiol Behav.*; 2023, Nov 22; *ahead of print* (PMID: 38000529)
- 2. Heo J., Schifino AG., McFaline-Figueroa J., Miller DL., Hoffman JR., **Noble EE.**, Greising SM., Call JA., "Differential effects of Western Diet and traumatic muscle injury on skeletal muscle metabolic regulation in male and female mice. J Cachexia Sarcopenia Muscle. 2023 Oct 25; (PMID 37879629)
- Subramanian KS., Tierno Lauer L., Hayes AMR., Décarie-Spain L., McBurnett K., Nourbash AC., Donohue KN., Kao AE., Bashaw AG., Burdakov D., Noble EE., Schier LA., Kanoski SE., "Hypothalamic melanin-concentrating hormone neurons integrate food-motivated appetitive and consummatory processes in rats" Nature Communications; 2023, March 29; 14(1):1755; (PMID 36990984)
- Heo J., Noble EE., Call JA., "The role of exerkines on brain mitochondria: a mini-review" J Appl Physiol., 2023 Jan 1; (PMID 36417200)

5. **Noble EE.**, "Behavioral consequences of a rumbling tummy: fasting alters emotional state via the vagus nerve" *Biological Psychiatry* (invited commentary), 2022 Nov. 1; (PMID 36202543)

- Tsan L., Chometton S., Hayes AMR., Klug ME., Zuo Y., Sun S., Bridi L., Lan R., Fodor AA., Noble EE., Yang X., *Kanoski SE., *Schier LA. "Early life low calorie sweetener consumption disrupts glucose regulation, sugar-motivated behavior, and memory functions in rats" *JCI Insight*, 2022; (PMID 36546482)
- 7. Décarie-Spain L., Liu CM., Tierno Lauer L., Subramanian K., Bashaw AG., Klug ME., Gianatiempo IH., Suarez AN., **Noble EE.**, Donohue KN., Cortella AM., Hahn JD., Davis EA., Kanoski SE., "Ventral Hippocampus-Lateral Septum circuitry promotes foraging-related memory" *Cell Reports*, 2022; Sept. 27 (PMID 36170832)
- 8. McFaline-Figueroa J., Schifino AG., Nichenko AS., Lord MN., Hunda ET., Winders EA., **Noble EE.**, Greising SM., Call JA., "Pharmaceutical agents for contractile-metabolic dysfunction after volumetric muscle loss" *Tissue Engineering Part A.*, 2022; Aug. 1 (PMID 35620911)
- 9. Olszewski PK., **Noble EE**., Paiva L., Ueta Y., Blevins JE., "Oxytocin as a potential pharmacological tool to prevent obesity." *Journal of Neuroendocrinology*, 2022; Feb. 12; e13106. (PMID 35192207)

2021

- 10. Lord MN., Heo JW. Schifino AG., Hoffman, JR., Donohue KN., Call JA., **Noble EE.**, "Sexually dimorphic effects of a Western Diet on brain mitochondrial bioenergetics and neurocognitive function." *Nutrients*, 2021; 13(12), 4222. (PMID 34959774)
- 11. Liu, CM., Spaulding MO., Rea JJ., **Noble EE.***, Kanoski SE.*, "Oxytocin and food intake control: Neural, Behavioral, and Signaling Mechanisms." *IJMS*, 2021; Oct. 8; 22(19): 10859 PMID 34639199
- 12. Tsan L., Sun S., Bridi L., Chirala L., Noble EE., Fodor, A., Kanoski SE., "Early life Western diet-induced memory impairments and gut microbiome changes in female rats are long lasting despite healthy dietary intervention." *Nutritional Neuroscience*, 2021; Sept. 27:1-17; PMID 34565305
- 13. Noble EE., Olson, CA., Davis E., Tsan, L., Chen YW., Schade R., Liu CM., Suarez AN.,

- Jones RB., de La Serre, C., Yang X., Hsiao EY., and Kanoski SE. "Gut microbial taxa elevated by dietary sugar disrupt memory function" *Translational Psychiatry*, 2021; Mar 31; 11(1):194 PMID: 33790226
- 14. Tsan, L., Decarie-Spain, L., **Noble EE.***, Kanoski SE.* "Western diet consumption during development: setting the stage for neurocognitive dysfunction" *Frontiers in Neuroscience* 2021; 15:632312, PMID 33642988
- 15. Lord, MN., Subramanian K., Kanoski SE.*, **Noble EE.*** "Melanin-concentrating hormone and food intake control: neural pathways and mechanisms" *Peptides* 2021; Mar; 137:170476, PMID: 33370567

2020

- 16. Reed DR., Alhadeff AL., Beauchamp GK., Chaudhari N., Duffy VB., Dus M., Fontanini A., Glendinning JI., Green BG., Joseph PV., Kyriazis GA., Lyte M., Maruvada P., McGann JP., McLaughlin JT., Moran TH., Murphy C., Noble EE., Pepino MY., Pluznick JL., Rother KI., Saez E., Spector AC., Sternini C., and Mattes RD., "Perspective: Sensory Nutrition and Disease." American Journal of Clinical Nutrition 2020; epub ahead of print PMID 33300030
- 17. Terrill SJ., Subramanian K., Lan R. Liu CM., Cortella AM., Kanoski SK.*, **Noble EE.***

 "Nucleus accumbens melanin-concentrating hormone signaling promotes feeding in a sex-specific manner" *Neuropharmacology* 2020 Nov 1; 178:108270; PMID 32795460
- 18. Liu CM., Davis, EA., Suarez, AS., Wood RI., *Kanoski SE, ***Noble EE.,** "Sex differences and estrous influences on oxytocin control of food intake" *Neuroscience* 2020; Nov 1; 447:63-73; PMID 31738883
- 19. Liu CM., Hsu TM., Suarez AN., Subramanian KS., Fatemi RA., Cortella AM., **Noble EE.**, Roitman MF., Kanoski SE. "Central oxytocin signaling inhibits food reward-motivated behaviors and VTA dopamine responses to food-predictive cues" *Hormones and Behavior* 2020 Oct 1; 126:104885; PMID 32991888
- 20. Suarez AN., Liu CM., Cortella AM., **Noble EE.**, Kanoski SE. "Ghrelin and orexin interact to increase meal size through a descending hippocampus to hindbrain signaling pathway" *Biol Psychiatry* 2020 Jun 1; 87(11): 1001-1011; PMID 31836175

2019

- 21. **Noble EE.**, Wang Z., Liu CM., Davis EA., Suarez AN., Stein LM., Tsan L., Terrill SJ., Hsu TM., Jung A., Raycraft LM., Hahn JD., Darvas M., Cortella AM., Schier LA., Johnson AW., Hayes MR., Holschneider DP., Kanoski SE. "Hypothalamus-hippocampus circuitry regulates impulsivity via melanin-concentrating hormone" *Nature Communications* 2019; 10(1):4923; PMID 31664021
- 22. Suarez A., **Noble EE**., Kanoski S. "Regulation of memory by feeding-relevant biological systems: following the breadcrumbs to the hippocampus" *Frontiers in Molecular Neuroscience* 2019; 12:101 PMID 31057368
- 23. **Noble EE.**, Hsu TM., Liang J., Kanoski SE. "Early life sugar consumption has long-term negative effects on memory function in Male rats" *Nutritional Neuroscience* 2019; 1-11; PMID 28944721
- 24. Malaeb S., Perez-Leighton CE., **Noble EE.**, Billington C. "A 'NEAT' approach to obesity prevention in the modern work environment" *Workplace Health Saf.* 2019; 67(3): 102-110; PMID: 30370831

2018

- 25. Ying Z., Byun H., Meng Q., **Noble EE.**, Zhang G., Yang X., Gomez-Pinilla F. "The biglycan gene connects metabolic dysfunction with brain disorder" *Biochim Biophys Acta*. 2018 1864(12):3679-87: PMID: 30291886
- 26. Noble EE., Hahn JD., Konanur VR., Hsu TM., Page SJ., Cortella AM., Liu CM., Song MY.,

- Suarez AN., Szujewski CC., Rider D., Clarke JE., Darvas M., Appleyard SM., Kanoski, SE. "Control of feeding behavior by cerebral ventricular volume transmission of melanin-concentrating hormone" *Cell Metabolism* 2018; PMID 29861386 *Featured on the cover*
- 27. Suarez AN., Hsu TM., Liu CM., **Noble EE.**, Cortella AM., Nakamoto EM., Hahn JD., de Lartigue G., Kanoski SE. "Gut vagal sensory signaling regulates hippocampus function through multisynaptic pathways" *Nature Communications* 2018; PMID 29872139
- 28. Hsu TM., **Noble EE.**, Reiner DJ., Liu CM., Suarez AN., Konanur VR., Hayes MR., Kanoski SE. "Hippocampus ghrelin receptor signaling promotes socially-mediated learned food preference" *Neuropharmacology* 2018; 131:487-96; PMID 29191751

2017

- 29. Reiner DJ., Mietlicki-Baase EG., Olivos DR., McGrath LE., Zimmer DJ., Koch-Laskowski K., Krawczyk J., Turner CA., **Noble EE.**, Hahn JD., Schmidt HD., Kanoski SE., Hayes MR. "Amylin acts in the lateral dorsal tegmental nucleus to regulate energy balance through gamma-aminobutyric acid signalling" *Biological Psychiatry* 2017; 82(11):828-838; PMID 28237459 *Featured on the cover*
- 30. Lopez-Ferreras L., Richard JE., **Noble EE**., Eerola K., Anderberg RH., Olandersson K., Tiang L., Kanoski SE., Hayes MR., Skibicka KP. "Lateral hypothalamic GLP-1R receptors are critical for the control of food reinforcement, ingestive behavior and body weight" *Molecular Psychiatry* 2017; PMID 28894301
- 31. Hsu, TM., **Noble EE.**, Liu CM., Cortella AM., Konanur VR., Suarez AN., Reiner DJ., Hahn JD., Hayes MR., Kanoski SE. "A hippocampus to prefrontal cortex neural pathway inhibits food motivation through glucagon-like peptide-1 signalling" *Molecular Psychiatry* 2017; PMID 28461695
- 32. **Noble EE.**, Hsu, TM., Kanoski SE. "Gut to brain dysbiosis: Mechanisms linking Western Diet consumption, the microbiome, and cognitive impairment" *Frontiers in Behavioral Neuroscience*. 2017; 11:9; PMID 28194099
- 33. **Noble EE.**, Hsu TM., Jones RB., Fodor AA., Goran MI., Kanoski SE. "Early life sugar consumption affects the rat microbiome independently of obesity" *Journal of Nutrition* 2017; 147(1): 20-8; PMID 27903830

2016

- 34. **Noble E.E.** and Kanoski S.E. "Early life exposure to obesogenic diets and learning and memory dysfunction" *Curr Opin Behav Sci* 2016; 9:7-14; PMID 26858972
- 35. Meng Q., Ying Z., **Noble E.** Zhao Y., Agrawal R., Mikhail A., Zhuang Y., Tyagi E., Zhang Q., Lee J., Morselli M., Orozco L., Guo W., Kilts T., Zhu J., Zhang B., Pellegrini M., Xiao X., Young M., Gomez-Pinilla F., Yang X. "Systems nutrigenomics reveals brain gene networks linking metabolic and brain disorders" *eBioMedicine* 2016; 7:157-66; PMID: 27322469
- 36. Agrawal R., Zhuang Y., **Noble E.E.**, Vergnes L., Ying Z., Reue K., Gomez-Pinilla F. "Dietary fructose aggravates the pathobiology of TBI by influencing energy homeostasis and plasticity" *J Cereb Blood Flow Metab.* 2016; PMID: 26661172.
- 37. Teske JA., Perez-Leighton CE., **Noble EE.**, Wang C., Billington CJ., Kotz CM. "Effect of housing types on growth, feeding, physical activity, and anxiety-like behavior in male Sprague-Dawley rats" *Front Nutr* 2016;3:4; PMID: 26870735

2015

- 38. Hsu TM., Hahn, JD., Konanur VR., **Noble EE.**, Suarez AN., Thai J., Nakamoto EM., Kanoski SE. "Hippocampus ghrelin signaling mediates appetite through lateral hypothalamic orexin pathways" *Elife* 2015; 4; PMID: 26745307
- 39. Agrawal R., **Noble E.**, Tyagi E., Zhuang Y., Ying Z., Gomez-Pinilla F. "Flavonoid Derivative 7,8-DHF attenuates TBI pathology via TrkB activation" *Biochim Biophys Acta*. 2015; 1852 (5): 862-72; PMID 25661191
- 40. Wu A., Noble EE., Tyagi E., Ying Z., Zhuang Y., Gomez-Pinilla F. "Curcumin boosts

DHA in the brain: implications for the prevention of anxiety disorders" *Biochim Biophys Acta*. 2015; 1852(5): 951-61; PMID 25550171

2014

41. **Noble EE.**, Mavanji V., Little MR., Kotz CM., Billington CJ., Wang, C. "Exercise reduces diet-induced cognitive decline and increases hippocampal brain-derived neurotrophic factor in CA3 neurons" *Neurobiology of Learning and Memory* 2014; 114C: 40-50; PMID 24755094

2013

42. **Noble EE.**, Little MR., Billington CJ., Kotz CM., Wang CF. "Oxytocin in the ventromedial hypothalamus reduces feeding and body weight in Sprague Dawley rats" *Am J Physiol Regul Integr Comp Physiol.* 2013; 307 (6): R737-45; PMID 24990860 2011

43. **Noble EE.**, Billington CJ., Kotz CM., Wang C. "The lighter side of BDNF" *Am J Physiol Regul Integr Comp Physiol* 2011; 300: R1053-1069; PMID 21346243

ABSTRACT PRESENTATIONS

- 1. Lazzaro, MC., Spaulding MO., **Noble EE.**, "Health outcomes of intermittent fasting in adolescent females"- Poster presentation, UGA Obesity Initiative Symposium Feb. 2024 *Student won 1st place poster presentation award
- 2. Lord MN., Spaulding MO., Madu G., Hoffman JR., **Noble EE**., "Behavioral mechanisms underlying cannabinoid induced eating"- Oral presentation, UGA Obesity Initiative Symposium, Feb. 2024 *Student won 1st place oral presentation award
- 3. Loera-Lopez., L., Lord MN., Hoffman JR., Sloan S., Call., J., **Noble EE**., "Investigating the impact of a Western Diet on astrocyte reactivity in the hippocampus" Poster presentation, UGA Obesity Initiative Symposium Feb. 2024
- 4. Mills, A., Madu G., **Noble EE.**, "Primary cilia in the ventromedial hypothalamus: energy balance control"- Poster presentation, UGA Obesity Initiative Symposium Feb. 2024
- 5. Madu G. and **Noble EE.**, "Impact of Melanin Concentrating Hormone on ethanol intake in female rats" Poster presentation, UGA Obesity Initiative Symposium Feb. 2024
- 6. Lord MN., Spaulding MO., Madu G., Hoffman JR., **Noble EE**., "Mechanisms underlying the cannabinergic control of eating behavior" Poster presentation, *Society for the Study of Ingestive Behavior annual meeting*, July 2023
- 7. Loera-Lopez L., Lord MN., Heo JW., Call J., **Noble EE**., "Impact of a Western Diet on Hippocampal Neuronal Mitochondria" Oral Presentation, *Society for the Study of Ingestive Behavior annual meeting*, July 2023
- 8. Madu G. and **Noble EE.**, "Impact of Melanin Concentrating Hormone on ethanol intake in female rats" Poster presentation, *Society for the Study of Ingestive Behavior annual meeting*, July 2023
- Spaulding MO., Hoffman JR., Lord MN., Myers KP., Noble EE. "Impact of Early Life Food Insecurity on Neural Development and the Regulation of Eating Behaviors" - Oral presentation, The Obesity Society, November 2022
- 10. Madu G. and **Noble EE.**, "Characterization of adult hippocampal primary cilia changes during diet-induced weight changes" Poster presentation, *Society for the Study of Ingestive Behavior annual meeting*, July 2022
- 11. Spaulding MO., Hoffman JR., Lord MN., Donohue KN., **Noble EE.** "Paraventricular hypothalamic melanin-concentrating hormone signaling and food intake control" Poster presentation. *Society for the Study of Ingestive Behavior annual meeting*, July 2022
- 12. Lord MN., Hoffman JR., Donohue KN., Schifino AG., Heo JW., Call JA, and Noble EE.

- "Sexually dimorphic effects of Western Diet on brain mitochondrial bioenergetics and neurocognitive function" Oral presentation *Society for the Study of Ingestive Behavior annual meeting*, July 2022
- 13. Hoffman JR., Spaulding MO., Lord MN., Soares-lizuka CA., de La Serre C., and **Noble EE.**, "Impact of a Western Diet on Brain Mitochondrial Network Dynamics and Behavior" Poster presentation *Society for the Study of Ingestive Behavior annual meeting*, July 2022
- 14. Lord MN., Hoffman JR., Donohue KN., Schifino AG., Heo JW., Call JA, and **Noble EE.** "Sexually dimorphic effects of Western Diet on brain mitochondrial bioenergetics and neurocognitive function" Poster presentation, *Society for Neuroscience annual meeting*, November 2021
- 15. Spaulding MO., Hoffman JR., Lord MN., Donohue KN., **Noble EE.** "Paraventricular hypothalamic melanin-concentrating hormone signaling and food intake control" Poster presentation, *Society for Neuroscience annual meeting*, November 2021
- 16. Hoffman JR., **Noble EE.** "Brain glycogen metabolism and feeding behavior" Poster presentation, *The Obesity Society annual meeting*, November 2020
- 17. **Noble EE.**, Jones RJ., Olson C., Tsan L., Fodor A., Goran I., Hsiao E., Kanoski SE. "Elevated gut *Parabacteroides* due to early life sugar consumption impairs memory function in rats" Oral presentation, *The Obesity Society annual meeting*, October 2019
- 18. **Noble EE.**, Kanoski SE., "Early life sugar consumption alters the gut microbiome and negatively impacts memory function in rats" -Oral presentation, *Society for the Study of Ingestive Behavior*, July 2018
- 19. **Noble EE.**, Hsu TM., Kanoski SE., "Central melanin-concentrating hormone neural signaling increases impulsive responding for food." Oral presentation (Ethan Sims Young Investigator Award Session), *The Obesity Society annual meeting*, October 2017 *1st place winner of the Ethan Sims Young Investigator Award.
- 20. **Noble EE.**, Kanoski SE., "Effects of early life sugar consumption on memory function during adulthood" –Oral Presentation, (Early Career Research Grant Challenge Session), *The Obesity Society annual meeting*, October 2017 *1st place winner of the Early Career Research Grant Challenge
- 21. **Noble EE.**, Hsu TM., Kanoski SE., "Melanin-concentrating hormone signaling in the ventral hippocampus increases impulsive responding for palatable food." –Oral presentation, *Society for the Study of Ingestive Behavior*, July 2017 *1st place for the Harry R. Kissileff Award for best oral presentation
- 22. **Noble EE.**, Hsu TM., Suarez A., Liu CM, Cortella A., Kanoski SE. "Melanin-concentrating hormone neuronal signaling increases food impulsivity: evidence for a role of the ventral hippocampus."- Oral presentation *Diabetes and Obesity Research Symposium*, February 2017 *2nd place for best trainee oral presentation
- 23. **Noble EE.**, Liu CM., Song MY., Konanur VR., Hsu TM., Suarez AN., Hahn JD., Kanoski SE. "Evidence for 'bulk flow' neurohumoral transmission by the orexigenic neuropeptide, melanin-concentrating hormone"- Oral presentation, poster presentation Winter Conference on Brain Research, January 2017 *Selected as an "outstanding junior scientist" to give a talk featured in the Pioneer Session
- 24. **Noble EE.**, Hsu TM., Jones RB., Fodor AA., Goran MI., Kanoski SE. "Early life sugar consumption alters the gut microbiome and negatively impacts memory function in rats." Oral presentation, *The Obesity Society annual meeting*, October 2016
- 25. **Noble EE.**, Song MY., Konanur V., Hsu TM., Suarez A., Hahn JD., Kanoski, SE. "Evidence for 'bulk flow' neurohumoral transmission by the orexigenic neuropeptide, melanin-concentrating hormone"- Oral presentation, *Society for the Study of Ingestive Behavior*, July 2016
- 26. Noble EE., Konanur V., Hsu TM., Suarez A., Hahn JD., Kanoski SE. "Evidence for

- neurohumoral transmission by the orexigenic neuropeptide, melanin-concentrating hormone" poster presentation *Diabetes and Obesity Research Symposium*, February 2016
- 27. **Noble EE.,** Meng Q., Ying Z., Zhuang Y., Gomez-Pinilla F., Yang X. "Proteoglycans of the extracellular matrix influence body composition and glucose homeostasis during high fructose consumption"- Oral presentation, *The Obesity Society annual meeting*, November 2015
- 28. **Noble EE.,** Meng Q., Ying Z., Zhuang Y., Byun HR., Yang X., Gomez-Pinilla F. "The extracellular matrix proteoglycan biglycan and fructose-induced central and peripheral metabolic disease" Poster presentation, The Society for Neuroscience annual meeting, November 2015
- 29. **Noble EE.**, "Skiing through lunch: exercise, obesity and the dynamically modifyable brain." Oral presentation *Winter Conference on Brain Research annual meeting*, January 2015
- 30. **Noble EE.**, Dieuleveult A., Duffy C., Lee R., Bainter H., Nixon J., Butterick T., Billington CJ., Kotz CM., Wang CF. "Impact of environmental enrichment on individual food intake and hypothalamic genes related to energy balance." Poster presentation *Society for Neuroscience annual meeting*, November 2014
- 31. **Noble EE.** "Effect of dietary fructose on the brain during TBI"- Oral presentation *UC Neurotrauma annual meeting*, September 2014
- 32. **Noble EE.**, Little MR., Billington CJ., Kotz CM., Wang CF. "Oxytocin in the ventromedial hypothalamus reduces feeding and increases energy expenditure in Sprague Dawley rats" Poster presentation *Society for Neuroscience annual meeting*, November 2013
- 33. **Noble EE.**, Mavanji V., Little MR., Kotz CM., Billington CJ., Wang CF. "Exercise reduces cognitive decline induced by dietary fat" Poster presentation *Society for Neuroscience annual meeting*, November 2012
- 34. **Noble EE.**, Perez-Leighton C., Billington CJ., Kotz CM., Wang CF. "Exercise effects on tropomyosin-related kinase receptor B (trkB) in the hypothalamic paraventricular nucleus (PVN): characterization of PVN trkB fibers." Poster presentation *Society for Neuroscience annual meeting*, November 2012
- 35. **Noble EE.** "Homeostatic and reward mechanisms involved in the neural regulation of energy homeostasis and obesity" Oral presentation *Winter Conference on Brain Research annual meeting*, January 2012
- 36. **Noble EE.**, Billington CJ., Kotz CM., Wang CF. "Effects of exercise on markers of hypothalamic neuroplasticity and neurodegeneration: changes in appetite and energy balance." Poster presentation *Society for Neuroscience annual meeting*, November 2011

INVITED RESEARCH PRESENTATIONS

Scientific Symposia

- -Peri-prandial autonomic and endocrine functions and dysfunctions workshop (September 2024, Ascona Switzerland)
- **-The Obesity Society annual meeting** (November 2024, San Antonio, TX) "Adolescent diet and neural development"
- **-UGA Obesity Initiative Symposium** (February 2024, Athens, GA) "Adolescent nutrition and the developing brain: lessons from rodent models"
- Swiss Winter Conference in Ingestive Behavior (February 2024, St. Moritz, Switzerland) "Melanin concentrating hormone and ingestive behavior: how does it work?"
- University of Kentucky Rising Stars Symposium "Melanin concentrating hormone and the neural regulation of impulsive eating" (November 2023, Lexington, KY)
- -16th Benjamin Franklin Lafayette Seminar (June 2023, Frejus, France) "Mechanisms

- contributing to a Western Diet induced hippocampal dysfunction"
- American Physiological Society Summit Foundational Science Session (April 2023, Long Beach, CA) "Mechanistic insights into Western Diet-induced hippocampal dysfunction"
- Swiss Winter Conference in Ingestive Behavior (February 2023, St. Moritz, Switzerland) "A
 rodent model of adolescent food insecurity: impact on eating behaviors and susceptibility
 to diet induced obesity"
- Gut-Brain Communication in Metabolic Control and Regulation of Energy Homeostasis workshop (August 2022, Ascona Switzerland)
- -American Society for Nutrition EAN GEM Forum (June 2022, NUTRITION LIVE online) "Nutrition and neurocognitive dysfunction: impact of age, sex, and diet composition"
- **-The Obesity Society annual meeting** (November 2021, virtual due to COVID 19) "Taking flight: reflections on my TOS Early Career Pilot Grant and where is it now"
- Presidential Symposium at The International Society for the Study of Ingestive Behavior annual meeting (July 2021, virtual due to COVID 19) "Western dietary factors and neurocognitive dysfunction: impact of sex, age, and diet composition"
- International Symposium on Regulatory Peptides (August 2021, Acapulco, Mexico) "Central oxytocin in social and reward-based feeding"
- National Institutes of Health (NIDDK) Sensory Nutrition and Disease Workshop
 (November 2019, Bethesda, MD) "Early-life flavors and sweet response as it relates to cognitive development and obesity"
- The Obesity Society annual meeting (November 2018, Nashville TN) "Melanin-concentrating hormone and food intake regulation: neural signaling vs. CSF volume transmission"

Invited Seminar Presentations

- -Department of Neuroscience, Michigan State University (2024)
- -Penn State Nutritional Sciences Research Colloquium, Penn State (2023)
- -Department of Exercise and Nutrition Sciences Seminar, University at Buffalo (2023)
- -Sensory Biology Center, University of Wyoming (2022)
- -Neuroscience Seminar, Georgia State University (2022)
- -Neuroscience Program Retreat, University of Georgia (2022)
- -Department of Molecular and Integrative Physiology, University of Kansas Medical Center (2022)
- -Department of Neuroscience, University of Florida (2022)
- -Department of Biological Sciences, Kent State University (2020)
- -Monell Chemical Senses Research Center, Philadelphia, PA (2020)
- -Department of Physiology and Pharmacology, University of Georgia (2019)
- -Neuroscience Program, University of Georgia (2019)
- -Department of Foods and Nutrition, University of Georgia (2018)
- -Department of Nutrition, Penn State University (2018)
- -Department of Nutritional Sciences, University of Arizona (2014)
- -Department of Psychology, Saint Catherine's University (2014)

OTHER PROFESSIONAL ACTIVITES AND DISTINCTIONS Awards and Honors

- -FACS Mentoring Undergraduate Research Award
 University of Georgia College of Family and Consumer Sciences 2024
- -Fellow of The Obesity Society (elected 2023)
- -Charles B. Knapp Early Career Scholar Award University of Georgia 2022
- -BioServ Award in Experimental Animal Nutrition

American Society for Nutrition 2022

-FACS Early Career Research Award

University of Georgia College of Family and Consumer Sciences 2022

- -UGA Provost Travel Award, 2022
- -Rolls-Simons Travel Award

The Obesity Society 2019

-Ethan Sims Young Investigator Award (for best abstract and oral presentation)

The Obesity Society, 2017

-Early Career Grant Challenge Award (for best oral presentation and grant proposal)

The Obesity Society, 2017

-Harry R. Kissileff Award (for best oral presentation by a postdoctoral researcher)

The Society for the Study of Ingestive Behavior, 2017

-2nd place award for best presentation by a trainee

The Diabetes and Obesity Research Institute (USC), 2017

-Young Investigator Travel Award

Winter Conference on Brain Research, 2017

-New Investigator Travel Award

Society for the Study of Ingestive Behavior, 2016

-Travel Award

Women in Science and Engineering, 2015

Editorial Boards- Scientific Journals

- -Editorial board member of *Obesity Reviews* (2023-present)
- -Editorial board member of *Physiology and Behavior* (2024-present)

Reviewer- Scientific Journals (ad hoc)

American Journal of Clinical Nutrition, American Journal of Physiology (Regulatory, Integrative, and Comparative), Biological Psychiatry, Brain Research, Experimental Gerontology, International Journal of Obesity, Journal of Neurophysiology, Journal of Nutrition, Molecular Psychiatry, Nature Communications, Neuropharmacology, Nutritional Neuroscience, Nutrition Research, Obesity, Physiology and Behavior

Reviewer- Grants (ad hoc)

- -National Institutes of Health Fellowship Study Section ZRG1 F01B
- -National Institutes of Health POMD Study Section ECR program
- -National Science Foundation CAREER grant program (ad hoc)
- -National Science Foundation (ad hoc)
- -Mouse Metabolic Phenotyping Centers MICROmouse grant program (ad hoc)
- -Center For Undergraduate Research Opportunities, University of Georgia (ad hoc)
- -Graduate Women in Science National Fellowship Program (ad hoc)
- -Swiss National Science Foundation (ad hoc)

Professional Memberships

- -The Obesity Society 2013-
- -Society for Ingestive Behavior 2013-
- -American Physiological Society 2022-
- -American Society for Nutrition 2021-2022
- -Society for Neuroscience 2011-2022

Professional Affiliations

Obesity Initiative, University of Georgia 2019-

Neuroscience Graduate Program, University of Georgia 2019-

Integrative Live Sciences Program, University of Georgia 2019-

Center for Neuroinflammation and Cardiometabolic Disease, Georgia State University 2022-Owens Institute for Behavioral Research, University of Georgia 2024-

Service to Professional Societies

- -Science Development Committee, The Obesity Society 2024-
- -Board Member The Society for the Study of Ingestive Behavior 2023-
- -Program Committee, The Society for the Study of Ingestive Behavior 2022-
- -Program Committee, The Obesity Society Annual Meeting- Track 2 Neuroscience Chair 2023

Co-Chair 2022

Committee member 2021

-Public Information Committee, The Society for the Study of Ingestive Behavior

Chair 2022

Committee member 2019-2023

-Awards Jury Member, American Society for Nutrition 2023

-Guest Editor for the Society for the Study of Ingestive Behavior special issue of Physiology and Behavior 2022

Appetite 2023

-Symposium Session Chair/Co-Chair

Society for the Study of Ingestive Behavior 2019, 2021-2023

Obesity Society Annual Meeting 2017, 2021-2024

American Physiological Society Summit 2023

Experimental Biology 2020 (Cancelled due to Covid)

-New Investigator Advisory Board

The Society for the Study of Ingestive Behavior, 2018, 2019

-Oral Presentation Referee

The Society for the Study of Ingestive Behavior, 2019, 2023

-Poster Presentation Referee

The Society for the Study of Ingestive Behavior, 2016, 2019, 2021, 2023

-Abstract Reviewer

The Obesity Society, 2016-2017, 2020-2024

The Society for the Study of Ingestive Behavior, 2023, 2024

University Service

-Graduate School Presidential Fellow Review Panel

Graduate School, University of Georgia, Spring 2024

-FACS Diversity, Equity, and Inclusion Committee Member

College of Family and Consumer Sciences, University of Georgia, Fall 2023-

-FACS Website Committee

College of Family and Consumer Sciences, University of Georgia, Fall 2023-

- -Center for Undergraduate Research Opportunities Award Reviewer (ad hoc)
- -Bernadier Undergraduate Research Award and CURO

Department of Nutrition, University of Georgia, Fall 2021-

-Departmental Seminar Series Coordinator

Department of Nutrition, University of Georgia, Fall 2019- Spring 2021, Fall 2023-

-Search Committee Member

Associate Dean for Research, Innovation & Entrepreneurship for the College of Family and Consumer Sciences, University of Georgia, Fall 2021

-Neuro Symposium Steering Committee

Neuroscience Graduate Program, University of Georgia, 2021

-Graduate Committee

Department of Nutrition, University of Georgia, Fall 2020- Spring 2021

Outreach

- -"Meet the Scientist" lunch at the Society for the Study of Ingestive Behavior annual meeting Society for the Study of Ingestive Behavior. 2023
- -Cooking class at The Obesity Society annual meeting

The Obesity Society annual meeting, 2021

-Invited Presenter (High School Outreach Event)

USC InterAxon Research Day, 2016

-Invited Presenter (Undergraduate Outreach Event)

USC WiSE and Dine event, 2016

-Co-organizer WISTEM (Women in STEM) and Presenter

Developed an after school program to teach STEM to middle school girls, 2015-2016

TEACHING EXPERIENCE

Courses

-Introduction to Foods and Nutrition FDNS 2100E (Summer 2024, Fall 2024)

Online, University of Georgia, Athens, GA

-Graduate Seminar in Nutritional Sciences NUTR 8900 (Fall 2023, Fall 2024)

University of Georgia, Athens, GA

-Graduate Seminar in Nutritional Sciences NUTR 6900 (Fall 2023, Fall 2024)

University of Georgia, Athens, GA

-*Nutrition and Neuroscience FDNS 8240 (Spring 2022, Spring 2024)

University of Georgia, Athens, GA *Developed this course

-Food and Nutritional Biochemistry FDNS/FDST 8150 (Fall 2020)

University of Georgia, Athens, GA

-Introduction to Foods and Nutrition FDNS 2100 (Fall 2019, Fall 2021)

University of Georgia, Athens, GA

-Undergraduate Research | FDNS 4960 (Spring 2020)

University of Georgia, Athens, GA

-Special Problems in Foods and Nutrition FDNS 3010 (Spring 2020)

University of Georgia, Athens, GA

-Undergraduate Research I HONS 4960R (Spring 2020)

University of Georgia, Athens, GA

-Foods and Nutrition Topics FDNS 8580 (Spring 2020)

University of Georgia, Athens, GA

Graduate Students Mentored (University of Georgia)

Primary mentor PhD

- -Magen Lord (PhD student; Fall 2020-present; Department of Nutritional Sciences, UGA)
- -Grace Madu (PhD, Summer 2021-present, Department of Nutritional Sciences, UGA)
- -Laura Loera-Lopez (PhD, Spring 2023-present, Neuroscience Graduate Program, UGA)
- -Austin Miller (PhD student; Fall 2023-present; Department of Nutritional Sciences, UGA)

Primary mentor MS

- -Mary Catherine Lazzarro (MS/DI student Fall 2023-present, Department of Nutritional Sciences, UGA)
- -Rawad Basma (Double Dawgs MS thesis student Fall 2024-, Department of Nutritional Sciences, UGA)

Current Graduate Student committee member (non-primary mentor)

Benjamin Lee Blackburn (PhD Physiology and Pharmacology, in progress)

Ellie Decker Ramirez (PhD Neuroscience, in progress)

Jun Won Heo (PhD Physiology and Pharmacology, in progress)

Lauren Ashley Beugelsdyk (PhD Neuroscience, in progress)

Past Graduate Student committee member (primary mentor)

-Mai Spaulding, PhD/DI (Fall 2020-Spring 2024; Department Nutritional Sciences, UGA)

Past Graduate Student committee member (non-primary mentor)

Miranda Arnold (PhD, Interdisciplinary Neuroscience, May 2024)

Postdoc at the University of Florida

Jacob Harth (PhD, Interdisciplinary Neuroscience, May 2024)

Research Scientist, UGA

Allison Rautman (MS, Foods and Nutrition, June 2021)

Registered Dietician in a hostpital setting

Sammi Kim (PhD, Foods and Nutrition, May 2021)

Postdoc at Emory

Elizabeth Klingbeil (PhD, Foods and Nutrition, May 2020)

Lecturer at Johnson and Whales

Mary Mckennon Pierce (MS Nutrition, May 2024)

Eden Crain (MS Nutritional Science, May 2024)

Graduate Rotation Students

- -Laura Loera-Lopez (Fall 2022 rotation student, Integrated Life Sciences program, UGA)
- -Gene Rodrick (Fall 2021 rotation student, Integrated Life Sciences program, UGA)
- -Jacob Harth (Fall 2020 rotation student, Integrated Life Sciences program, UGA)
- -Felicia Ebot-Ojong (Fall 2019 rotation student, Integrated Life Sciences program, UGA)
- -Rachel Dockman (Fall 2019 rotation student, Integrated Life Sciences program, UGA)

Undergraduate Students Mentored (present)

Rawad Basma (Fall 2021-present)

- Recipient of the CURO Fellowship for Undergraduate Research (Spring 2022, Fall 2022)
- Recipient of the Carolyn Berdanier Undergraduate Research Grant (Fall 2022, 2023)
- Recipient of the FACS Undergraduate Research Award (2023)

Evelynn Rollman (Fall 2022-present)

- Recipient of the CURO Fellowship for Undergraduate Research (Fall 2022)

Alexandra Lartonoix (Fall 2022-present)

Vivien Christopher (Fall 2022-present)

Kelsey McGuire (Fall 2023-present)

Undergradate Students Mentored (past)

Shi Chen (Spring 2020)

- Pursuing a masters degree in nutrition and dietetics at Illinois State Adele Bloodworth (Spring 2020)

- Currently in medical school at the University of Alabama Jacqueline Yalta (Fall 2020-Spring 2021)
 - Recipient of the CURO Fellowship for Undergraduate Reseach (Fall 2020)

Mary Catherine DeMatteo (Fall 2020-Spring 2021)

- Recipient of the CURO Fellowship for Undergraduate Reseach (Spring 2021)
- Recipient of the Carolyn Berdanier Undergraduate Research Grant (Spring 2021)
- Pursuing a masters degree at Louisiana State University

Kristen Donohue (Spring 2020- Spring 2021)

- Worked in the lab as a summer lab technician (Summer 2021), currently a Lab Manager in the Kanoski Lab at the University of Southern California

Lauren Ballew (Fall 2020- Spring 2021)

- Recipient of the CURO Fellowship for Undergraduate Reseach (Fall 2020, Spring 2021)
- Currently in dental school at the University of Alabama

Oscar Vanegas (Fall 2021-Fall 2022)

Prashant Kolachala (Spring 2020-Spring 2022)

- Recipient of the CURO Fellowship for Undergraduate Reseach (Fall 2020)

Rahul Patel (Fall 2021-Spring 2022)

- Currently in medical school at the Medical College of Georgia

Maggie Whitehead (Spring 2020-Spring 2023)

- Recipient of the CURO Fellowship for Undergraduate Research (Spring 2020)
- Recipient of the Carolyn Berdanier Undergraduate Research Grant (Fall 2020)

Kamayla Ko (Spring 2021-Spring 2022)

- Recipient of the CURO Fellowship for Undergraduate Research (Fall 2021)

Gayathri Annamraju (Spring 2021-Spring 2023)

Omeka Bhatia (Summer 2021-Spring 2023)

- Recipient of the Carolyn Berdanier Undergraduate Research Grant (Fall 2021)
- Recipient of the FACS Undergraduate Research Award (Fall 2021, 2022)

Ian meeks (Fall 2021-Spring 2023)

Caroline lizuka (Fall 2021-Spring 2023)

- Recipient of the Carolyn Berdanier Undergraduate Research Grant (Fall 2022)
- Recipient of the FACS Undergraduate Research Award (Fall 2022)

Olivia Moody (Summer 2023, 2024)

- Currently a laboratory technician in the Kanoski Lab at the University of Southern California

Isabella Morris (Fall 2023, 2024)

- Recipient of the FACS Undergraduate Research Award (2023)
- Currently pursuing a PhD in neuroscience (in the application process)

Tiffany Le (Spring 2021-2024)

Ethan Rimando (Fall 2021-2024)

Summer Undergraduate Research Experience (NSURE)

Aleah Brown (Summer 2021)

-Currently a postbaccalaureate fellow at NIH/NICHD

Ayanna Howard-Carswell (Summer 2024)