CLAIRE DE LA SERRE

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PROFESSIONAL EXPERIENCE

Associate Professor	University of Georgia, Department of Foods and Nutrition	2019-
Assistant Professor	University of Georgia, Department of Foods and Nutrition	2013-2019
Instructor	University of Georgia, Department of Foods and Nutrition	2012-2013
Postdoctoral Research Fellow	Johns Hopkins University, School of Medicine	2011-2012
Exchange Scholar	University of California, Davis, Veterinary Medicine	2008-2011

EDUCATION AND TRAINING

Johns Hopkins University	Postdoctoral Fellowship, Behavioral Neurosciences laboratory	2011-2012
AgroParisTech, France	Ph.D. In Physiology and Nutrition Laboratory work conducted at UC Davis, Veterinary Medicine	2011
AgroParisTech, France	M.S in Life Sciences Engineering M.S in Physiology and Nutrition Laboratory work conducted at UC Davis, Veterinary Medicine and Massey University, Palmerton North, New Zealand	2008 2008

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES (*denotes UGA student, # denotes corresponding authorship)

Noble E, Olson CA, Davis E. Tsan L, Chen YW, Schade R*, Liu C, Suarez A, Jones RB, Goran MI, **de La Serre CB**, Yang X, Hsiao EY, Kanoski SE. Gut microbial taxa elevated by dietary sugar disrupt memory function. *Biological Phsychiatry* – In review

1. Cawthon CR*, **de La Serre CB#**. CCK, regulation of food intake and diet-induced obesity. *Peptides (2021)*
2. Cawthon CR*, Kirkland RA, Pandya S*, Brinson NA*, **de La Serre CB#**. Non-neuronal crosstalk promotes an inflammatory response in nodose ganglia cultures after exposure to byproducts from gram positive, high-fat-diet-associated gut bacteria. *Physiology and Behavior (2020)*
3. Kim JS*, Kirkland RA, Lee SH*, Cawthon CR*, Rzepka KW, Minaya DM, de Lartigue G, Czaja K, **de La Serre CB#**. Gut microbiota composition modulates inflammation and structure of the vagal afferent pathway. *Physiology and Behavior (2020)*
4. McDougle M, Quinn D, Diepenbroek C, Singh A, **de la Serre C**, de Lartigue G. Intact vagal gut-brain signalling prevents hyperphagia and excessive weight gain in response to high-fat high-sugar diet. *Acta physiologica (2020)*
5. Singh A, **de la Serre C**, de Lartigue G. Gut microbiota sPARk vagus nerve excitation. *The Journal of physiology (2020)*
6. Klingbeil EA*, Cawthon C*, Kirkland R, **de La Serre CB#**. Potato-resistant starch supplementation improves microbiota dysbiosis, inflammation, and gut-brain signaling in high fat-fed rats. *Nutrients (2019)*
7. Lee SH*, Kirkland R, Grunewald Z*, Sun Q, Wicker L, **de La Serre CB#**. Beneficial effects of non-encapsulated or encapsulated probiotic supplementation on microbiota composition, intestinal barrier functions, inflammatory profiles, and glucose tolerance in high fat fed rats. *Nutrients (2019)*

8. Grunewald ZI*, Kirkland R, Lee SH*, Ross M, **de La Serre CB#.** Cannabinoid receptor type-1 partially mediates metabolic endotoxemia-induced inflammation and insulin resistance. *Physiology and Behavior (2019)*
9. Klingbeil E*, **de La Serre CB#**. Microbiota modulation by eating patterns, dietary and macronutrient composition; impact on food intake. *American Journal of Physiology -Regulatory, Integrative and Comparative Physiology (2018)*
10. Kim J*, **de La Serre CB#**. Diet, gut microbiota composition and feeding behavior. *Physiology and Behavior (2018)*
11. Cawthon C*, **de La Serre CB#**. Gut bacteria interaction with vagal afferents. *Brain Research (2018)*
12. Lee SH*, Keirsey K, Kirkland R, Grunewald ZI*, Fischer JG, **de La Serre CB#**. Blueberry supplementation improves gut microbiota, inflammatory profile and insulin signaling in high fat fed rats. *The Journal of Nutrition (2018)*
13. Pati S, Krishna S, Lee JH, Ross MK, **de La Serre CB**, Harn DH, Wagner JJ, Filipov NM, Cummings BS. Effects of high-fat diet and age on the blood lipidome and circulating endocannabinoids of female C57BL/6 mice. *BBA - Molecular and Cell Biology of Lipids (2018)*
14. Sen T, Cawthon C*, Ihde BT, Gawey BJ, Ahmed M, Long JA, Kirkland R, Hajnald A, DiLorenzo PM, **de La Serre CB#**, Czaja K. Diet-driven microbiota dysbiosis is associated with vagal remodeling and obesity. *Physiology and Behavior (2017)*
15. Vaughn AC, Cooper EM, DiLorenzo PM, O'Loughlin LJ, Konkel ME, Peters JH, Hajnal A, Sen T, Lee SH*, **de La Serre CB#**, Czaja K. Minocycline's effects on diet-induced changes in gut microbiota and reorganization of gut-brain vagal communication. *Acta Neurobiologiae Experimentalis (2017)*
16. Li L, **de La Serre CB**, Zhang N, Hong L, Bi S. Dorsomedial hypothalamic neuropeptide Y modulate hepatic insulin sensitivity and glucose. *Endocrinology (2016)*
17. **de La Serre CB**, Kim YJ, Moran TH, Bi S. Dorsomedial hypothalamic NPY affects cholecystokinin-induced satiety via modulation of brainstem catecholamine neuronal signaling, *American Journal of Physiology --Regulatory, Integrative and Comparative Physiology (2016)*
18. Krishna S, Lin Z, **de La Serre CB**, Wagner JJ, Harn DH, Pepples LM, Djani DM, Weber MT, Srivastava L, Filipov NM.. Time-dependent behavioral, neurochemical, and metabolic dysregulation in female C57BL/6 mice caused by chronic high-fat diet intake. *Physiology and Behavior (2016)*
19. Brown J, Gregory C, **de La Serre CB**, Magnan N. Summer garden programs improve children's food knowledge and preferences: evidence using stated and revealed preference measures. *HortTechnology (2016)*
20. Lee SH*, **de La Serre CB#**. Gut microbiome-brain communications regulate host physiology and behavior the microbiota-gut-brain axis. *Journal of Nutritional Health & Food Science (2015)*
21. Dollé L, **de La Serre CB**, and van Grunsven LA. Are dietary emulsifiers making us fat? *Journal of hepatology (2015)*
22. Krishna S, Keralapuratha MM, Lina Z, Wagner JJ, **de La Serre CB**, Harn DA, Filipov NM. Neurochemical and electrophysiological deficits in the ventral hippocampus and selective behavioral alterations caused by high-fat diet in female C57BL/6 mice. *Neurosciences (2015)*
23. **de La Serre CB**, de Lartigue G, Raybould HE. Chronic exposure to low dose bacterial lipopolysaccharide inhibits leptin signaling in vagal afferent neurons. *Physiology and Behavior (2015)*
24. de Lartigue G, **Barbier de la Serre C**, Espero E, Lee J, Raybould HE, Leptin resistance in vagal afferent neurons inhibits cholecystokinin signaling and satiation in diet induced obese rats. *PLoS ONE (2012)*
25. de Lartigue G, **de La Serre CB,** Raybould HE. Vagal afferent neurons in high fat diet-induced obesity; intestinal microflora, gut inflammation and cholecystokinin. *Physiology and Behavior (2011)*
26. de Lartigue G, **Barbier de La Serre C**, Espero E, Lee J, Raybould, HE. Diet-induced obesity leads to the development of leptin resistance in vagal afferent neurons. *American Journal of Physiology - Endocrinology and Metabolism (2011).*

27. **de La Serre CB**, Ellis CL, Lee J, Hartman AL, Rutledge JC, Raybould HE. Propensity to high fat diet-induced obesity in rats is associated with changes in the gut microbiota and gut inflammation. *American Journal of Physiology - Gastrointestinal and Liver Physiology (2010)*. Selected for highlights in Physiology 2010, no. 5
28. de Lartigue G, Dimaline R, Varro A, Raybould H, **de La Serre CB**, Dockray GJ. Cocaine-and amphetamine-regulated transcript mediates the actions of cholecystokinin on rat vagal afferent neurons. *Gastroenterology (2010)*
29. Paulino G, **Barbier de La Serre C**, Knotts T, Oort PJ, Newman J, Adams S, et al. Increased expression of receptors for orexigenic factors in nodose ganglion of diet-induced obese rats. *American Journal of Physiology - Endocrinology and Metabolism (2009)*

BOOK CHAPTERS

Laye S and **de La Serre C,** Neuroinflammation et obésité, Traité pratique de médecine des obésités, (*2020)*

Barbier de La Serre, C. and Moran TH. Cholecystokinin and Satiety, Handbook of Biologically Active Peptides, Second Edition, Abba J. Kastin (ed), Elsevier – Academic Press, Amsterdam *(2013)*

RESEARCH SUPPORT

SOURCE	TITLE	DATES	ROLE	AMOUNT
National institute of Health – NIDDK	Consequence and mechanism of diet-driven vagal remodeling on gut-brain feeding behavior	2020 -2025	**PI**	$1,772 800
Alliance for Potato Research & Education	Efficacy of potato resistant starch on improving gut microbiota composition, inflammatory profile, and insulin signaling in high fat fed rats	2017-2019	**PI**	$151,458
National institute of Health – NIDDK	Microbiome-Vagal-Brain signaling: impact on the reward system and food intake	2016-2019	**PI**	$248,000
UGA Clinical & Translational Research Unit seed grant	Autism Spectrum Disorder: The Role of Diet, Physical Activity, and Gut Microbiome on Bone Strength	2017-2018	**Co-PI**	$38,639
UGA faculty research grant	Influence of meal patterning on microbiota composition and insulin resistance	2016-2018	**PI**	$10,000
USDA - National Institute of Food and Agriculture	Impact of a High Anthocyanin Food on Intestinal Microbiota and Intestinal and Systemic Inflammation	2014-2017	**Co-PI**	$325,000
UGA faculty research grant	Role of the endocannabinoid system in endotoxemia-induced insulin resistance	2014-2015	**PI**	$10,000
UGA Seed Grant Funding	Reducing obesity induced gastrointestinal inflammation by using encapsulated probiotics	2014	**Co-PI**	$10,000
UGA obesity initiative Preliminary data research proposal	Inflammation and autism: an investigation on the contribution of diet-induced maternal obesity to autism's etiology and the feasibility of intervention treatment with a potent anti-inflammatory glycan	2014 2013	**Co-PI** **Co-PI**	$25,000 $25,000

HONORS

HONORS AND AWARDS

2019 Travel fellow, *Winter Conference on Brain Research*
2017 Invited speaker, *Society for the Study of Ingestive Behavior*
2017 Early Career Research Award, College of Family and Consumer Sciences College
2016 Selected to attend the biennial *Little Brain Big Brain* meeting
2011 New Investigator Travel Award, *Society for the Study of Ingestive Behavior*

SCHOLARLY REVIEW OF PUBLICATIONS

2019 Article "Blueberry supplementation influences gut microbiota, inflammation, and insulin resistance in high-fat fed rats" selected for special collection of content, *The American Society for Nutrition*
2018 Article "Blueberry supplementation influences gut microbiota, inflammation, and insulin resistance in high-fat fed rats" selected for press release, *The Journal of Nutrition*
2017 Article "Diet-driven microbiota dysbiosis is associated with vagal remodeling and obesity" selected for weekly *Obesity and Energetics Offerings* release
2016 Article "Dorsomedial hypothalamic NPY affects cholecystokinin-induced satiety via modulation of brainstem catecholamine neuronal signaling" selected as a Featured Article in *American Journal of Physiology*
2014, 16 Abstract selected for press release, *Society for the Study of Ingestive Behavior*
2010 Article "Propensity to high fat diet-induced obesity in rats is associated with changes in the gut microbiota and gut inflammation" selected for highlights in *Physiology*

SERVICES

BOARD MEMBER

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

EDITORSHIPS OR EDITORIAL BOARD MEMBERSHIPS FOR JOURNALS

- American Journal of Physiology (Regulatory, Integrative and Comparative Physiology)
- Physiology and Behavior

AD HOC MANUSCRIPT REVIEWER

Journal of Comparative Neurology, Translational Psychiatry, Scientific Reports, Cellular and Molecular Life Sciences, The Journal of Nutritional Biochemistry, *The ISME Journal: Multidisciplinary Journal of Microbial Ecology, Food and Nutrition Research, Nutritional Neurosciences, PLOS one, Physiology and Behavior, American Journal of Physiology, Experimental Physiology, Journal of Translational Medicine, The Journal of Nutrition*

AD HOC GRANT REVIEWER

National Sciences Foundation, Integrative Ecological Physiology Program
National Institute of Health, NIDDK, Digestive Diseases and Nutrition C Subcommittee
National Institute of Health, Fogarty Global Brain Disorders Panel
National Institute of Health, Mouse Metabolic Phenotyping Centers
National Institute of Health, NIDDK, PAR-20-133
Agence National de la Recherche (French NIH), 2020 Proposals