

CURRICULUM VITAE – September 23, 2016
NICOLE MARGUERITE CAMERON
Updated information is highlighted

CONTACT DATA

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Behavioral Neuroscience Program
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EDUCATION

1989-94 **B.Sc. in Biology**
Université du Québec à Montréal, Montréal, QC, CANADA
Course credits were also obtained from classes taken at San Francisco State University.

1996-2003 **Ph.D. in Neuroscience**
Boston University, Boston, MA, USA
Dissertation: *Adrenal Modulation of Prolactin and Pseudopregnancy and Inputs of the Noradrenergic system.*
Advisor: Mary S. Erskine

POSITIONS HELD

1989-1991 Research Assistant
Micropaleontology
GEOTOP, University of Montreal
Montreal, Quebec, Canada

1997-2002 Research Assistant
Biology
Boston University

AWARDS AND HONORS

- 1999 Travel Award
Gender Differences in Brain and Behavior
Official Satellite Symposium of the 8th Annual meeting of the International Behavioral
Neuroscience Society (IBNS), Nancy, France
- 2002 Travel Award
11th Annual meeting of the International Behavioral Neuroscience Society (IBNS)
Capri, Italy
- 2004 Young Investigator Award
8th Annual meeting of the Society for Behavioral Neuroendocrinology (SBN)
Lisbon, Portugal

GRANT SUPPORT

ACTIVE RESEARCH SUPPORT

- R21AA023072 (PIs: Cameron; Nizhnikov) 2/5/16-1/31/18
Source: NIH/NIAAA
Title: Transgenerational effect of gestational alcohol exposure.
Role/Effort: Lead Investigator, 1.5 months effort
Total \$: 399,372/ 281,968 direct cost
*The focus of this project is to investigate the epigenetic mechanisms responsible for the trans-
generational effects of gestational alcohol exposure. Although the experimental design was a
collaboration, all animal testing and tissue collection are performed in my laboratory.*

COMPLETED RESEARCH SUPPORT

- P50AA017823 (PI: Spear) Developmental Exposure Alcohol Research Center 8/1/2014-7/30/16
Source: NIH/NIAAA
Title: Pilot 1 - Maternal care influence in offspring ethanol sensitivity and consumption.
Role/Effort: Lead Investigator, 1.0 months effort
Total \$: 60,000 direct cost
*This pilot project investigates the effect of maternal care on alcohol consumption and sensitivity
to alcohol during adolescence and adulthood.*

- Research Collaboration Pilot Grant (PI: Mattson) 1/1/2014-12/30/15
Source: State University of New York, Research Foundation
Title: The Interplay of genetic, neurobiological, and developmental factors in the association
between social support in marriage and physical and mental health: toward an integrated
model.
Role/Effort: Co-Investigator, 1.5 months effort
Total \$: 100,000/60,000 direct coast
*This study investigates the interplay of genetic, early life environment and hormonal
response during couple interaction and the association between social support in marriage
and physical and mental health. My contribution includes experimental design, sample collection,
data analysis, and future manuscript preparation.*

- Individual Development Awards (PI: Cameron) 3/2016
Source: United University Personnel, Binghamton University
Description: Support to cover attending the New York Academy of Science Conference

Total \$: 500

Individual Development Awards (PI: Cameron)

1/2015

Source: United University Personnel, Binghamton University

Description: Support to cover the cost for training in the laboratory of Luke Remage-Healey at University of Massachusetts.

Total \$: 1,000

Binghamton University

10/2013-9/2014

Source: Psychology Department

Title: Maternal effects on female offspring mood

Role: Lead Investigator

Total \$: 6,000

Binghamton University

10/2013-9/2014

Source: Center for development and Behavioral Neuroscience

Title: Maternal effects on the GABA system

Role: Lead Investigator

Total \$: 6,000

Pilot Project Grant, Developmental Exposure Alcohol Research Center

9/1/2012-8/30/2014

Source: State University of New York

Title: Effects of early environment and adolescent ethanol exposure on negative mental health outcomes.

Role/Effort: Lead Investigator/1.5 months

Total \$: 30,000

This pilot project investigates the effect of maternal care and adolescent alcohol exposure on anxiety/depression-like behavior in males.

Binghamton University/ Upstate Medical University Collaborative Neuroscience. 9/1/2012-8/30/2014

Source: State University of New York

Title: Epigenetic effects of maternal care on puberty onset in female rats.

Role/Effort: Co-Principal Investigator/ 1.5 months effort

Total \$: 18,500

This pilot grant investigated the mechanisms involved in the effect of maternal care on puberty onset.

EVoS Small Grant Proposal

2/24/2011-9/1/2011

Source: EVoS Program

Title: The biology of female social bonds: A rodent model of central and peripheral oxytocin release under varied social context.

Role: Lead Investigator

Total \$: 2,500

PEER REVIEWED PUBLICATIONS (*=graduate students, **=undergraduate students)

Link to publication list on My NCBI:

<https://www.ncbi.nlm.nih.gov/sites/myncbi/1DaGerLCzdckl/bibliography/40571852/public/?sort=date&direction=ascending>

1. **Cameron, N** and Erskine, M.S. (2003). C-fos expression in the forebrain after mating in the female rat is altered by adrenalectomy. *Neuroendocrinology*, 77(5): 15

IN PREPARATION

1. *Popoola, D.O., Nizhnikov, M.E. and **Cameron, N.M.** (to be submitted before 9/30/2016) Strain-specific programming of transgenerational effects of gestational ethanol exposure. Requested by G.E. Homanics and R. Miranda for a special issue in "Epigenetic Effects of Alcohol" to be published in Alcohol.
2. **Cameron N.M.**, Thompson M., Cumming, M., Hodges, T.E. *Langett, M. McCormick, C.M., (in preparation) The sexual preference of female rats is influenced by males' adolescent social stress history and social status.
3. *Borrow, A.P. and **Cameron, N.M.** (in preparation) Maternal care influence on mood through neurosteroid modulation.
4. *Langett, M. and **Cameron, N.M.** (in preparation) Effect of mating in oxytocin peripheral and central levels in female rats.
5. *Popoola, D.O. and **Cameron, N.M.** (in preparation) Maternal care programming of sex-difference in alcohol preference.
6. Kappeler, L., Parent, C.I., Portella, ~~SKPH~~ ` "% äJ3:“ S1 -â>CÃ]à 'a TM~g'a TM^ TM• -¿(? @TbG d€- "Âj'N"c22Câ

XXII European Congress of Perinatal Medicine
Granada, Spain
May 2010
“Maternal Programming of the Reproductive System of the Offspring”

Society for Behavioral Neuroendocrinology
Toronto, Canada
July 2010
“Effects of maternal care on paced mating behavior and reproductive success of the female rat.”

Science Cabaret
Binghamton, NY
August 2010
“The effects of maternal care on the development of the female rat.”

Neuroscience Club
Binghamton, NY
April 2012
“Mother’s Touch: A source of individual variation in daughter’s reproduction”

EvoS
Binghamton, NY
April 2012
“Mother’s Touch: A source of individual variation in daughter’s reproduction”

Common Themes in Reproductive Diversity (CTRD) and Center for the Integrative Study of A(r)-14(m)5(a)-2(t)TJ ET

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3. **Cameron N.M.**, Fish E.W., Meaney M.J. (2004). Variation in maternal care influences reproductive strategy. Douglas Hospital Research Center Annual Research Day. Verdun, QC, Canada
4. **Cameron N.M.**, Parent C.I., Dhir S.K., Sharma S., Meaney M.J. (2006). Effects of variations in maternal care on corticosterone, luteinizing hormone and reproduction in female rats. Society for Neuroscience 36th Ann,

15. *Popoola, D.O., **Cameron, N.M.** (2015). Early-life Maternal Care Modulates Alcohol Dependence. International Society for Developmental Psychobiology, San Sebastian, Spain.

POSTER PRESENTATIONS (*=graduate students, **=undergraduate students, += Bridges to Baccalaureate students)

- 1.

18. **Cameron N.M.**, Dhir SK, and Meaney M.J. (2006) Maternal Influence on Female Offspring Sexual Behavior: A Cross-Fostering Study. Society for Behavioral Neuroendocrinology. Pittsburgh, PA, USA
19. **Cameron N.M.**, Dhir SK, and Meaney M.J. (2006) Effect of variation in maternal care and gonadal hormones on sexual behaviors. The Endocrine Society's 88th Meeting. Boston, MA, USA.
20. Silveira PP, Portella AK, Dhir S, **Cameron N**, McAllister K, Hellstrom I, and Meaney MJ . (2006). Maternal care influences growth and metabolism at different ages. Developmental Origins of Health and Disease (DOHAD). Utrecht, Netherlands
21. Parent C.I., Del Corpo A., **Cameron N.M.**, and Meaney M.J. (2006) Dominance status in the female rat is influenced by natural variations in maternal care. International Society for Developmental Psychobiology (ISDP) Society for Neuroscience, 36th Annual Meeting. Atlanta, GA, USA
22. **Cameron NM**, Silveira PP, Del Corpo A, Sharma, S. and Meaney MJ. (2007) Effect of natural variation in maternal care on estrogen, progesterone and luteinizing hormone in the proestrus female rat. The Endocrine Society's 89th Meeting. Toronto, ON, Canada
23. **Cameron NM**, Del Corpo A, and Meaney MJ. (2007) Variation in maternal care and ovariectomy influence sexual behaviors and brain C-fos activity in the female rat. Society for Behavioral Neuroendocrinology. Carmel, CA, USA
24. **Cameron NM**, Caldji C, Diorio J, and Meaney MJ. (2008) Effect of maternal care on the female offspring phosphorylated estrogen receptor activation in the rat. Canadian Association for Neuroscience. Montreal, QC, Canada
25. **Cameron NM**, Del Corpo A, Portella, AK, Sharma, S, and Meaney MJ. (2008) Maternal care, endocrine system development and mounting behavior in the female rat. Society for Behavioral Neuroendocrinology. Gronigen, Netherlands.
26. **Cameron NM**, Sharma S, and Meaney, MJ. (2009) Maternal Care and the Control of LH Pulsatility in the Female Rat Offspring. Endocrine Society. Washington DC, USA
27. **Cameron NM**, and Meaney, MJ (2009) Natural Variations in Maternal Care Are Associated with Variations in VMH Activity and receptor Expression. Society for Behavioral Neuroendocrinology. East Lansing, MI, USA

POSTER PRESENTATIONS SINCE ARRIVING AT BINGHAMTON UNIVERSITY

1. ****Levy, M.**** Lugo, M.* Borrow, A.P. and **Cameron, N.M.** (2010). Maternal Effects on the Development of the Reproductive System. Psi Chi Research Fair, Binghamton University. Binghamton, NY, USA
2. +Iroakazi, E., *Borrow, A.P. and **Cameron, N.M.** (2010). Testosterone and Maternal Care Affect Male-Typical Sexual Behavior. Bridges to Baccalaureate Presentation Day, Binghamton University. Binghamton, NY, USA

9. *Borrow, A.P., and **Cameron N.M.** (2012) Is oxytocin the “Love Hormone”? The answer coming from both human and animal research. North Eastern Evolutionary Psychology Society (NEEPS). Plymouth, NH, USA
10. *Borrow, A.P., and **Cameron N.M.** (2012) Prenatal testosterone exposure effects on female sexual behavior in High and Low licking/grooming offspring. Society for Behavioral Neuroendocrinology (SBN). Madison, WI, USA
11. *Soehngen, E.P. Werner, D.F. Tamashiro, K.L. and **Cameron, N.M.** (2012) Maternal Care effects on onset of puberty. Society for Behavioral Neuroendocrinology (SBN). Madison, WI, USA
12. *Borrow, A.P., and **Cameron N.M.** (2012) Natural variations in maternal care modulate effects of prenatal testosterone exposure on pubertal development and sexual behavior. Organisation for the Study of Sex Differences (OSSD). Baltimore, MD, USA
13. *Soehngen, E.P. Werner, D.F. Tamashiro, K.L. and **Cameron, N.M.** (2012) Effects of maternal care on the development of estrogen-kisspeptin signaling. International Society for Developmental Psychobiology (ISDP). New Orleans, LA, USA
14. *Borrow, A.P., and **Cameron N.M.** (2012) Natural variations in maternal care modulate effects of prenatal testosterone exposure on pubertal development and sexual behavior. Society for Neuroscience (SFN) New Orleans, LA, USA
15. *Soehngen, E.P. Werner, D.F. Tamashiro, K.L. and **Cameron, N.M.** (2012) Maternal Care effects on onset of puberty. Society for Neuroscience (SFN) New Orleans, LA, USA
16. +Pinnock, M. L., *Popoola, D. O., and **Cameron, N.M.** (2013) Maternal care, GABAA receptor and ethanol in the rat brain. Bridges to Baccalaureate Program, Binghamton University, Binghamton, NY, USA.
17. +Gallegos, J. C., *Borrow, A.P. and **Cameron, N.M.** (2013). Maternal care, brain derived neurotrophic factor (BDNF) and estrogen receptor alpha in the estrous cycle. Bridges to Baccalaureate Presentation Day, Binghamton University. Binghamton, NY, USA.
18. Borrow, A.P., *Rametta, S. and **Cameron N.M.** (2013) Maternal care and estrous cycle effects on locomotor activity in the rat. Society for Behavioral Neuroendocrinology (SBN), Atlanta, GA, USA
19. *Borrow, A.P., **Stolow, M. and **Cameron N.M.** (2013) The effect of maternal care on depressive-like behaviors. Society for Neuroscience (SFN) San Diego, CA, USA
20. *Popoola. D.O., Nizhnikov, M.E. Spear. N. and **Cameron, N.M.** (2014) Trans-generational Effect of Prenatal Ethanol Exposure in Rats on Ethanol Consumption and Sensitivity. Gordon Conference on Alcohol & Nervous System. Galveston, TX, USA
21. *Borrow, A.P. and **Cameron N.M.** (2014) A novel model of premenstrual affecting disorders in the cycling rat. Organisation for the study of sex differences (OSSD). Minneapolis, MN, USA
22. **Champagne K., **Paul, D. *Popoola, D.O. and **Cameron, N.M.** (2014) Prenatal alcohol exposure region-specifically alters expression of GABAA receptor $\alpha 1$, $\alpha 4$, and $\alpha 2$ subunits in the brain: A transgenerational effect. Undergraduate Research Conference. Binghamton University. Binghamton, NY, USA
23. **Levin, D.G. *Popoola. D.O. and **Cameron, N.M.** (2014) Early-life maternal care influences sensitivity to ethanol’s sedation-hypnosis in an age and dose dependent manner. Undergraduate Research Conference. Binghamton University. Binghamton, NY, USA
24. **Sidhu, N., **Bien, E., +Sanders, J., *Borrow, A.P. and **Cameron, N.M.** (2014) An interaction between allopregnanolone and natural variation in maternal care on elevated plus maze behavior. Psi Chi Research Fair, Binghamton University. Binghamton, NY, USA
25. +Gordon, G., *Langett, M., and **Cameron, N.M.**

28.

- Search Committee, Tenure Track Faculty in Behavioral Neuroscience, 2009-2010
- Search Committee, Tenure Track Faculty in Cognitive Neuroscience, 2010-2011
- Award Committee, Psychology Department, 2010-2014
- Colloquium Committee, Psychology Department, 2011-2012
- Chair of Colloquium Committee, Psychology Department, 2012-2016
- Multiculturalism and Diversity Dean's Speaker Series Interim Director, Spring 2014
- Hosted Colloquia Speakers (2010-2014)

UNIVERSITY SERVICE

- University Undergraduate Curriculum Committee 2016-present
- Faculty Senate, fall 2012 and fall 2014-2016
- Member of the EvoS Executive Committee, 2012-present
- Member of the Education Policy and Priorities Committee, 2013- present
- Participated to the Binghamton/Upstate Neuroscience Collaboration Retreat, Oct. 26, 2011
- Speaker at Binghamton University Open House April 5, 2014
- Hosted Bridges to Baccalaureate Students (2010, 2013,2014, 2015,2016)
- Hosted Student from Hartwick College during Binghamton Link 2011

PROFESSIONAL ACTIVITIES

Ad hoc Review Panel

- Natural Sciences and Engineering Research Canada (NSERC) granting Agency
- Economic and Social Research Council (ESRC) British granting Agency
- Mary S. Erskine Award Review Panel, 2009-2010

Editorial Board Member

- Scientific Reports (2016-present). Impact Factor 2015: 5.228

Ad hoc Reviewer for the Following Journals:

1. Alcohol
2. Behavioral and Brain Sciences
3. Behavioural Processes
4. Brain Science
5. D6fÛ .

- 23. Social Psychiatry and Psychiatric Epidemiology
- 24. Zoology

Ad hoc Book Reviewer

- Thomas Valone, *Animal Behavior: Concepts, Processes, and Applications*. Oxford University Press.

Professional Committee Memberships

- Northeastern Psychology Society, Organizing Committee, Conference, 2010-2011
- Society for Behavioral Neuroendocrinology, Public Education Committee, 2012-2016
- Society for Behavioral Neuroendocrinology, Hosting Committee Member, 2016 Montreal Conference

Professional memberships:

- Society for Neuroscience (SFN)
- Society for Behavioral Neuroendocrinology (SBN)
- International Society for Developmental Psychobiology
- Research Society on Alcoholism (RSA)

Interdisciplinary Research Group:

- Center for Developmental Psychobiology (CDBN), Binghamton University
- Evolutionary Studies (EvoS) at Binghamton University
- Developmental Exposure Alcohol Research Center (DEARC)

Outside Examiner:

- Upstate Medical University, Laura Prestia (august 2014)
- Binghamton University, Biology, Tome Giardina (December 2015)

TEACHING EXPERIENCE

Binghamton University

Undergraduate

- PSY 392 (various credits), **Maternal Effects on Offspring**, 08/09-present, Instructor
 PSY 473, (4 credits), **Psychobiology of Sex and Reproduction**, 01/10-present, Instructor
 PSY 363, (2 credits), **Behavioral Neuroscience Lab** (3 sections/semester), 08/10-present, Coordinator and Instructor
 PSY 327, (4 credits), **Evolution and Behavior**, 01/14-present, Instructor

Graduate

- PSY 573, (2 credits), **Neurochemistry**, 08/09-12/11, Instructor
 PSY 592 (various credits), **Maternal Effects on Offspring**, 08/09-present-, Instructor
 PSY 609B, (2 credits), **Sex Difference in the Brain**, 01/13-present, Instructor