MASTERS / PHD / POSTDOCTORAL FELLOW / RESEARCH ASSOCIATE
BIOGRAPHICAL SKETCH

DO NOT EXCEED FOUR PAGES.

NAME OF GRADUATE STUDENT APPLICANT	POSITION TITLE
Samantha Lee	PhD Student
eRA COMMONS USER NAME (credential, e.g., agency login)	

EDUCATION/TRAINING:

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
University of Manitoba	MSc	08/2017	Biology
University of Manitoba	BSc	05/2014	Genetics

A. Personal Statement

I am a PhD student in the Jones lab. My research involves examining the epigenetic mechanisms underlying the developmental origins of health and disease. Specifically, I am investigating how prenatal and early-life exposure to ambient air pollution alters DNA methylation patterns through childhood and identifying which of these patterns also contribute to the development of childhood allergenic phenotypes. Through this research I hope to gain a better understanding of the molecular mechanisms underlying altered childhood health outcomes. Ultimately, I hope that this data can be used to direct future research aiming to develop accessible methods to prevent or reverse the effects of early-life air pollutant exposure

B. Positions and Honors

ACTIVITY/OCCUPATION	BEGINNING DATE (mm/yy)	ENDING DATE (mm/yy)	FIELD	INSTITUTION/COMPANY	SUPERVISOR/ EMPLOYER
Research technician 3	01/19	08/19	Epigenetics/ computational biology	University of Manitoba	Dr. Meaghan Jones
Quality assurance assistant	03/17	08/17	Medical devices	Cerebra Health/Younes Medical Technologies	
Teaching assistant (level 2)	05/18 05/16 05/15	05/18 05/16 05/15	Biology 2500	University of Manitoba	
Guest lecturer	10/15	10/15	Human physiology 1	University of Manitoba	
Research assistant	01/13	05/13	Neuroscience/ genetics	University of Manitoba	Dr. Mark Fry
Research assistant	12/10	02/13	Plants/genetics	University of Manitoba	Dr. Mark Belmonte
Teaching assistant (level 1)	09/14	04/15	Biology 1020	University of Manitoba	
Teaching assistant (level1)	09/10	04/11	Chemistry 1300	University of Manitoba	

Academic and Professional Honors

JOURNAL PUBLICATIONS

2018 C. Peterson, S. Huang, **S. Lee**, A.V Ferguson, M. Fry. The transcriptome of the rat subfornical organ is altered in response to early postnatal overnutrition. *IBRO Reports.* 5(open access) 17-23.

2015 S. Huang, **S. Lee**, K. Oswald, M. Fry. Ghrelin alters neurite outgrowth and electrophysiological properties of mouse ventrolateral arcuate tyrosine hydroxylase neurons. *Biochem Biophys Res Commun. 466(4) 682-8.*

2014 M.G. Becker, A. Chan, X. Mao, I.J. Girard, **S. Lee**, M. Elhiti, C. Stasolla, M.F. Belmonte. Vitamin C deficiency improves somatic embryo development through distinct gene regulatory networks in Arabidopsis. *J Exp Bot*. 65(20) 5903-18

POSTER PUBLICATIONS (presenter only)

2017 **S. Lee**, L. Shute, M. Fry. Characterization of catecholamine-containing GFP-expressing dissociated mouse area postrema neurons and their response to GLP-1. *Canadian Association of Neuroscience Annual Meeting.*

2016 **S. Lee**, S. Suyama, M. Fry, T. Yada. Regulation of hypothalamic paraventricular arginine-vasopressin neurons by leptin and osmolarity. *JSPS orientation meeting.*

2016 **S. Lee**, L. Shute, M. Fry. Characterization of catecholamine-containing GFP-expressing area postrema neurons. *Manitoba Neuroscience Network Meeting.*

2015 **S. Lee**, L. Shute, M. Fry. Dopamine acts directly in dissociated arcuate nucleus neuron culture to alter gene expression. *Canadian Association of Neuroscience Annual Meeting.*

2014 S. Huang, S. Lahki, **S. Lee**, D. Childs, M. Fry. Na^+ channel expression in rat subfornical organ is regulated by fasting. *Canadian Association of Neuroscience Annual Meeting.*

AWARDS

2019 University of Manitoba Graduate Fellowship (UMGF)

2016 Mitacs-Japan Society for the Promotion of Science (JSPS) Summer Research Program

2014 Manitoba Health Research Council (MHRC) Student Fellowship

2014 Canadian Council for Aboriginal Business (CCAB) Foundation for the Advancement of Aboriginal Youth (FAAY) Scholarship

2014 Indspire Post-Graduate Student Award

2013 Louis Riel Scholarship

2013 NSERC Undergraduate Student Research Award