

# CURRICULUM VITAE

February 2022

**Name:** Marla B. Sokolowski, PhD., F.R.S.C.

**Address:** Department of Ecology and Evolutionary Biology  
Faculty of Arts and Sciences  
Earth Sciences Centre,  
University of Toronto  
25 Willcocks Street,  
Toronto, ON M5S 2B2

**Email:** [marla.sokolowski@utoronto.ca](mailto:marla.sokolowski@utoronto.ca)

**Telephone:** 1-647-330-6398

**Website:** <http://sokolowski.eeb.utoronto.ca>

**Degrees:** PhD. 1981. Behaviour Genetics, University of Toronto  
B.Sc. 1977. Zoology, University of Toronto

**Citizenship:** Canadian

**Born:** July 20, 1955, Toronto, Ontario, Canada

**Children:** Daughter born August 27, 1991  
Son born October 22, 1995.

**Present Position:** University Professor,  
Department of Ecology and Evolutionary Biology  
University of Toronto

## 1. Appointments

2008-2019 Codirector of the Child and Brain Development Programme, Canadian Institute for Advanced Research (CIFAR).

2012-2013 Director of Collaborative PhD program in Human Development, University of Toronto.

2012-2014 Academic Director, Fraser Mustard Institute for Human Development, University of Toronto.

2010-2013 Director of Life Sciences, Division of the Academy of Sciences, Royal Society of Canada.

2010- University Professor, University of Toronto.

2001-2012 Codirector Genes, Environment, Nervous System and Behaviour Research Cluster, University of Toronto Mississauga.

2012- Full Professor, EEB, University of Toronto, St. George Campus.

1999-2012 Full Professor, Biology, University of Toronto Mississauga  
 1994-1999 Full Professor, Biology, York University , Toronto, Canada.  
 1988-1993 Tenured Associate Professor, Biology, York University.  
 1986-1988 Tenure Track Assistant Professor, Biology, York University.  
 1982-1992 NSERC University Research Fellow, Biology, York University.  
 1981-1982 NSERC Post-doctoral Fellow, Biology, York University.

## 2. Awards and Honours

2020 Royal Society of Canada Flavelle Medal (for research in the biological sciences)  
 2019 Renewal of CIFAR Fellow Award  
 2016 Visiting Fellow, The Halbert Centre for Canadian Studies and Department of Psychology, Hebrew University, Israel.  
 2015 Visiting Professor, Temporal Dynamics of Learning, University of California, San Diego, California, US.  
 2015- Weston Fellow of CIFAR.  
 2015- Lifetime Senior Fellow Massey College.  
 2014 International Behavioural and Neural Genetics (IBANGS) Society Distinguished Investigator Award.  
 2013-2014 Distinguished Visiting Professor, Center for Advanced Studies, Norwegian Academy of Sciences Oslo, Norway.  
 2002-2014 Tier 1 Canada Research Chair in Genetics and Behavioural Neurology, Government of Canada.  
 2013 Senior Fellow, CIFAR.  
 2013- Queen Elizabeth II Diamond Jubilee Medal Government of Canada (for research through the Royal Society of Canada).  
 2013- Inter American Network of Academies of Sciences (Woman in Science).  
 2012 University Professorship University of Toronto.  
 2010- William F. Grant and Peter B. Moens Award of Excellence, Genetics Society of  
 2007 Canada.  
 2006 Distinguished Visiting Professor, University of Paris, France.  
 2006 Research Excellence Award, University of Toronto Mississauga.  
 2004 Distinguished Visiting Professor, University of Tucson, Arizona, US.  
 2004- Senior Fellow Massey College.  
 1998- Fellow of the Royal Society of Canada.  
 1993 Teaching Excellence Award, York University, Canada.  
 1993 Young Scientist Award, Genetics Society of Canada.  
 1992 NSERC University Research Fellow.  
 1982 NSERC postdoctoral Fellow.  
 1980 Ramsay Wright Award, Zoology, University of Toronto.  
 1979 Dobzhansky Memorial Research Award, International Behaviour Genetics Society.

### 3. Grant Support

Sokolowski has been continuously funded by the Natural Sciences and Engineering Council of Canada (NSERC) since 1982. She has also received multiple single PI research grants from Canadian Institutes for Health Research (CIHR), Canadian Institute for Advanced Research (CIFAR), Canadian Foundation for Innovation (CFI) National Institute of Health (NIH), Canadian Space Agency, University of Toronto (UT) as well as group grants from the Human Frontier Science Program (HFSP), NSF, NSERC, CIHR, CIFAR and UofT.

Summary of significant research grants (greater than \$50,000 per annum) received.

#### *Current Individual Single PI Grants*

April 1 2016 –March 31 2021

Principal Investigator: Marla B. Sokolowski

#### **NSERC Discovery Grant**

Title: The Drosophila foraging gene: gene regulation, pleiotropy and plasticity.

Funding Source: NSERC

Funding: \$72,000 per annum (Canadian dollars)

Funding Competitive? Yes

2014/09 – yearly to retirement

Principal Investigator: Marla B. Sokolowski

#### **Distinguished Professorship Research Support**

Funding Sources: Research Support - Operating costs University of Toronto

Funding: \$90,000 per annum (Canadian dollars)

Funding Competitive?: Yes

2013/9 - 2019/6

Principal Investigator; Marla B. Sokolowski

#### **Research funds for Co-director of CIFAR CBD Program**

Funding Sources: 2013/9 - 2019/6 CIFAR-CBD

Canadian Institute for Advanced Research (CIFAR)

Total Funding: \$450,000 (Canadian dollars)

Funding Competitive?: Yes

2011/4 - 2016/3

Principal Investigator: Marla B. Sokolowski

**Behaviour genetic analysis of natural variation in learning and memory in Drosophila**

Principal Investigator: Marla B. Sokolowski

Funding Sources: 2011/4 - 2016/3 Discovery Grants

Natural Sciences and Engineering Research Council of Canada (NSERC)

Total Funding: \$260,400 (Canadian dollars)

Funding Competitive?: Yes

2012/9 - 2016/2

Principal Investigator: Marla B. Sokolowski

**Gene-Environment Interplay Research Laboratory**

Funding Sources: 2013/3 - 2016/2 CFI LOF

Canada Foundation for Innovation (CFI)

Total Funding: \$399,751 (Canadian dollars)

Funding Competitive?: Yes

2012/9 - 2016/2 ON Provincial Gov-ORF

Principal Investigator: Marla B. Sokolowski

**Gene-Environment Interplay Research Laboratory**

Ministry of Research and Innovation (MRI) (Ontario)

Total Funding: \$399,751 (Canadian dollars)

Funding Competitive?: Yes

2012/9 - 2016/2 UofT-CFI-ORF match

Principal Investigator: Marla B. Sokolowski

**Gene-Environment Interplay Research Laboratory**

University of Toronto

Total Funding: \$200,498 (Canadian dollars)

Funding Competitive?: Yes

*Group Collaborative Grants*

2019-2020

**Co-investigator. Is brain plasticity tuned to the predictability of the environment?"**

Principle investigator: Paul Frankland

Co investigators, Sokolowski, J. Levine, S. Josselyn, B. Richards.

Funding Source: CIFAR catalyst grant.

Total Seed Money Funding: \$50,000. (Canadian Dollars Funding competitive: Yes

2013-2016

**Causal relationships between early adversity and histone modifications in Drosophila.**

Principle investigators: Marla Sokolowski, Mike Kobor

Funding Source: CIFAR

Total Seed Money Funding: \$140,000. (Canadian Dollars)

Funding competitive: Yes.

2013/4-2016/3

Co-investigator: Marla B. Sokolowski

2012-2016.

**Determinants of Individual Differences in Maternal Care**

Principal Investigator: Alison Fleming

Funding Sources: CIHR Operating Grant

Total Funding: \$530,028 (Canadian dollars)

Funding Competitive?: Yes

2013-2019

Co-investigator: Marla B. Sokolowski

Sociogenomics Research Coordination Network

Principal Investigator: Gene Robinson

Funding Source: NSF

Total Funding: \$500,000 (US dollars)

Funding Competitive?: Yes

*Completed Individual:*

2015 IOF funds for CFI grant

Principal Investigator: Marla B. Sokolowski

**Gene-Environment Interplay Research Laboratory**

Canadian Foundation for Innovation (CFI)

Ministry of Research and Innovation (MRI) (Ontario)

Total Funding: \$120,000 (Canadian dollars)

Funding Competitive?: Yes

2001/1 - 2015/12

Principal Investigator: Marla B. Sokolowski

**Canada Research Chair Tier 1 in Genetics and Behavioural Neurology Research Cluster Support**

Funding Sources: 2001/1 - 2015/12 Research Support - Operating costs University of Toronto

Total Funding: \$1,260,000 (Canadian dollars)

Funding Competitive?: Yes

2001/1 - 2015/12

Principal Investigator: Marla B. Sokolowski

**Canada Research Chair Tier 1 in Genetics and Behavioural Neurology**

Funding Sources: 2001/1 - 2015/12 Salary

Canada Research Chairs (CRC)

Total Funding: \$2,800,000 (Canadian dollars)

Funding Competitive?: Yes

2010/4 - 2015/3

Principal Investigator: Marla B. Sokolowski

**Analyses of the multiple functions of the *Drosophila foraging* gene, a cGMP dependent protein kinase**

Funding Sources: 2010/1 - 2016/3 Operating  
Canadian Institutes of Health Research (CIHR)

Total Funding: \$453,340 (Canadian dollars)

Funding Competitive?: Yes

2008/9 - 2013/8

Principal Investigator: Marla B. Sokolowski

**Research funds for Co-director of CIFAR EBBD**

Funding Sources: 2008/9 - 2013/8 CIFAR-EBBD Canadian Institute for Advanced Research (CIFAR)

Total Funding: \$375,000 (Canadian dollars)

Funding Competitive?: Yes

2011/7 – 2014CFI-CRC

Principal Investigator: Marla B. Sokolowski

**Neurogenetics and Behaviour Research Facility**

Canada Foundation for Innovation

Total Funding: \$199,924 (Canadian dollars)

Funding Competitive?: Yes

2011/7-2014 ORF-CRC

Principal Investigator: Marla B. Sokolowski

**Neurogenetics and Behaviour Research Facility**

Ministry of Research and Innovation (MRI) (Ontario)

Total Funding: \$199,924 (Canadian dollars)

Funding Competitive?: Yes

2011/7-2014 UofT-CFI-ORF-match

Principal Investigator: Marla B. Sokolowski

**Neurogenetics and Behaviour Research Facility**

University of Toronto

Total Funding: \$99,962 (Canadian dollars)

Funding Competitive?: Yes

2012-2014 Heart and Stroke

Postdoctoral Fellowship for Dr. Jeff Dason

Total Funding: \$100,000 (Canadian dollars)

Funding Competitive?: Yes

2010-2012 University Professor Award Funding

Principal Investigator: Marla B. Sokolowski

Funding Sources: University of Toronto

Total Funding: \$20,000 (Canadian dollars)

Funding Competitive?: Yes

2006/4 - 2011/3

Principal Investigator: Marla B. Sokolowski

**Genetic analysis of natural variation**

Funding Sources: 2006/4 - 2011/3 Discovery

Natural Sciences and Engineering Research Council of  
Canada (NSERC) [Received continuous funding since 1982].

Total Funding: \$447,500 (Canadian dollars)

Funding Competitive?: Yes

2008/1 - 2010/1

Principal Investigator: Marla B. Sokolowski

**CFI/OIT Equipment for Genetics and Neurobiology Cluster**

Funding Sources: 2008/1 - 2010/1 CRC/CFI

Canada Foundation for Innovation (CFI)

Total Funding: \$650,000 (Canadian dollars)

Funding Competitive?: Yes

2004/9 – 2008/8

Principal Investigator: Marla B. Sokolowski

**Genes underlying food-related behaviours in Drosophila**

Funding Sources: 2004/9 - 2008/8 NIDDK RFA-DK-03081

National Institute of Diabetes & Digestive & Kidney diseases (NIDDK)

Total Funding: \$1,030,000 (Canadian dollars)

Funding Competitive?: Yes

2002-2005

Principal Investigator: Marla B. Sokolowski

**“Genetic and molecular studies of food related behaviours in Drosophila”**

CIHR

Total Funding: \$219,000 (Canadian dollars)

1999-2002

Principal Investigator: Marla B. Sokolowski

**“The role of cGMP-dependent protein kinase in Drosophila behaviour”**

CIHR

Total Funding: \$195,000 (Canadian dollars)

2003-2005

Principal Investigator: Marla B. Sokolowski (for post-doctoral researcher Dr. C. Lucas)

Molecular basis for plasticity in ant social behaviour  
Total Funding: \$100,000 (Canadian dollars)

*Completed (Group Collaborative Grants)*

2011/9 - 2013/9

Co-investigator: Marla B. Sokolowski

**Developmental Trajectories: A University of Toronto System-Wide Initiative to Improve Health, Learning and Society**

Principal Investigator: Lye, Stephen

Funding Sources: 2011/9 - 2013/9 Connaught Global Challenge Award University of Toronto

Total Funding: \$1,000,000 (Canadian dollars)

Funding Competitive?: Yes

2003/9 – 2008/8

Co-investigator: Marla B. Sokolowski

**Maternal adversity, vulnerability and neurodevelopment**

Principal Investigators: Meaney, Michael & Matthews, Stephen

Funding Sources: 2003/9 - 2008/8 Group Grant

Canadian Institutes of Health Research (CIHR)

Total Funding: \$3,750,000 (Canadian dollars)

Funding Competitive?: Yes

2003/9 - 2008/8

Co-investigator: Marla B. Sokolowski

**Training grant on Gene by Environment Interactions**

Principal Investigator : Meaney, Michael

Funding Sources: 2003/9 - 2008/8 Training grant

Canadian Institutes of Health Research (CIHR)

Total Funding: \$1,332,000 (Canadian dollars)

Funding Competitive?: Yes

~1990's

\$480,000 CDN

NSERC Collaborative Grants 3 year grant with Atwood (UofT Physiology), Hilliker (Genetics, U of Guelph) (PI: H. Atwood)

~2000's

\$6,000,000 CDN

CFI/OIT Infrastructure grant for Centre for Applied Bioscience and Biotechnology at UTM (PI: U. Krull)

~2003's

\$11,452,000 CDN



CFI/OIT Infrastructure grant for Centre for Communication,  
Information and Culture (PI: B. Schneider)

NSERC equipment grants (multiple group equipment grants) \$800,000 CDN  
This is total of equipment grants from NSERC over many years.

*Completed International Group Grants:*

1991-1994 **Human Frontiers Science Grant-International Collaborative Grant- Genetic and molecular analyses of complex behaviour** with scientists in Britain (C.P. Kyriacou), France (J-M. Jallon), US (J.C. Hall) and Germany (M. Heisenberg), 3 year grant (PI: M.B. Sokolowski) \$1,000,000 US

NIH and NSF funding for **Gordon Research Conference on Genes and Behaviour** (2008 in Italy) Chair: Marla B. Sokolowski, with Vice Chair: David Clayton \$100,000 US

#### 4. Supervisory Experience

22 post-doctoral fellows, 23 PhD students and 15 Master's students (lifetime).  
Trainees hold academic positions around the world and in industry (in pharma and genomics).

#### Postdoctoral Fellows

1991-1995	Dr. Elisabeth Burgess (molecular biologist) (computer programmer)
1991-1993	Dr. Philip Welbergen (NSERC International Postdoctoral Fellow; Manager, Pharma and Healthcare Industry, Germany)
1993-1994	Dr. Mark Blows (NSERC International Postdoctoral Fellow) (quantitative geneticist) (Professor and Chair– University of Queensland, Australia)
1995-1997	Dr. Martine Peypelut (insect physiologist-INRA, France)
1996-1998	Dr. John Ewer (neurogeneticist) (Full Professor University of Valparadiso Chile)
1997	Dr. Mohan Subramanian (molecular biologist, industry)
1999-2000	Dr. Hisato Kuniyoshi (behavioural neurogeneticist) (Tenured Associate Professor Hiroshima University, Japan).
2001-2003	Dr. Max Suster (Group Leader, University of Bergen, Norway)

2003-2006	Dr. Christophe Lucas (social insect behavioural neurobiologist, tenured scientist researcher CNRS)
2003	Dr. Hans Smidt (parasitoid learning-molecular biology, neurobiology, Associate Professor, University of Wageningen)
2004	Dr. Raquel Marco (Postdoctoral Fellow, University of Madrid)
2004-2008	Dr. Ken Dawson-Scully (Professor Florida Atlantic University; Associate Vice President for Strategic Initiatives and Head of Institutional Partnerships for Florida Atlantic University and Max Planck Florida Institute for Neuroscience)
2005-2008	Dr. Tony So (Industry, Researcher)
2005-2009	Dr. Scott Douglas (intellectual property lawyer)
2005-2012	Dr. Karen Williams (lecturer University of Toronto)
2007	Dr. Femmie Krajeveld (Policy worker at Dutch Wildlife Society)
2009-2012	Dr. James Burns (Junior CIFAR post-doc; currently a research liason Mental Health-Pharma, Shire Pharmaceuticals)
2009-2011	Dr. Amsale Belay (Manager Genotyping Platforms, Clinical Genomics, Lunenfeld Institute, Mount Sinai Hospital Toronto)
2009-2011	Dr. Nicolas Svetec (co-supervised with Locke Rowe, UT, post-doc- University California Davis, research associate Rockefeller University)
2013-2019	Dr. Jeff Dason (Funded by Heart and Stroke Foundation-currently a tenure track Assistant Professor, University of Windsor, Ontario)
2016-2020	Dr. Maria Aristizabal (CIFAR and then NSERC funded). Tenure track Assistant Professor, Dept Biology, Queens, University.
2016- 2019	Dr. Stephanie Biergans (Team Leader, Translational, Bioinformatics, Tubingen, Germany).
2020-	Dr. Allan Edelsparre (post-doc Sokolowski lab).

### **Research Associates**

2002-2008	Dr. Munmun Chatterjee (Research Associate, Center for Addiction and Mental Health, Toronto, Ontario, Canada)
2002-2005	Dr. Dipten Chatterjee (Research Associate, University of Toronto, Mississauga)

### **Sabbatical Visitors**

1995-1996	Professor. Art Hilliker (Professor, University of Guelph, now York University, Ontario, Canada)
1995-1997	Dr. Lionel Peypelut [Associate Professor (deceased) University of Bordeaux,

	France.
2003	Professor Louise Vet (Director Emeritus of the Netherlands Institute of Ecology, and Professor of Entomology at University of Wageningen, Netherlands)
2013	Associate Professor Ian Dworkin Michigan State (now at Master University, Ontario, Canada)
2015	Associate Professor Amanda Moehring (short visit)

### **International Graduate Student and Post-Doctoral Visitors**

Thomas Hendel (Germany, PhD University of Wurzburg, Head of research management University of Munich, Institute of epidemiology) 4 months

Amanda Sorribes (Spain, PhD Biophysics Madrid, currently the chief media and marketing data officer at the UK prime minister's office) 4 months

Katja Hoedjes (PhD student University of Wageningen, Netherlands; currently a PDF University of Laussaune, Switzerland) 6 months

Sara Kuntz (Germany, PhD student, Mainz Germany) 6 months

Korinna Kochinke (PhD Radabout, Netherlands, currently a PDF) 2 weeks

Lindsey Gray (Australia-works in science outreach and education) 1 year

Michael Dolan (PhD student at Cambridge University, UK; now PDF at the Broad Institute, MIT and Harvard) 4 months

Ina Anreiter (Portugal-later completed a PhD student in Sokolowski lab ) 8 months

Clair Han (PhD student- Princeton University, US, now PDF at Janeilia Farms) 4 months

John McMullen (PhD student-Cornell University, US) 2 weeks

### **Current Graduate student supervision:**

#### **PhD**

Oscar Vasquez

Regulation of FORAGING protein isoforms in the gut.

### **Graduate Student Theses Completed**

(Name, Year degree granted, present position when known)

#### **These Completed: (M.Sc.):**

BAUER, S.J. 1985. Genetic analyses of pre-pupal behaviours in *Drosophila*. (Lab technician)

de BELLE, S.J.C. 1987. Genetic analysis of larval foraging behaviour in *Drosophila*. (Director of Research Dart Neurosciences, formerly a Tenured Associate Professor, University of Nevada and Programme, Director Animal Behaviour NSF, Was Senior Scientist Dart Neuroscience, San Diego, US)

RODRIGUEZ, L.E.N. 1988. Larval pupation behaviour in *Drosophila*. (Government administrator-Trinidad)

HUGHES, K. 1992. The *Drosophila* parasitoid wasp *Asobara tabida* and the rover/sitter polymorphism in *Drosophila melanogaster*. (Researcher for Ministry of the Environment, Canada)

WILLIAMS, K. 1992. Diapause in *Drosophila* females: A genetic analysis. (Lecturer, University of Toronto, Mississauga and Scarborough).

BUTLAND, S.L. 1993. Transcript analysis of the *foraging* locus in *Drosophila melanogaster*. (Retired bioinformatics specialist with Michael Hayden, the Michael Smith Centre, University of British Columbia, Canada).

SAWIN, E.P. 1993. The response of *Drosophila melanogaster* larvae to light. (Cytologist, Victoria Hospital, London, Ontario, Canada).

VARNAM, C. 1995. Larval behaviour of central complex mutants in *Drosophila* (Science and legal librarian, Saskatoon, Canada).

FALZONE, C. 1998. Molecular analysis of the cGMP-dependent kinase signalling pathway which mediates foraging behaviour in *Drosophila melanogaster* (Senior Patents Manager, Global Patents - Manager of Canadian Products at Mylan Canada, Pharma Industry, Canada).

SHAW-MOXAM, R. 2005. Food related behaviours in *Drosophila melanogaster*: Genetic and pharmacological investigation for regulation by the NO/cGMP signalling pathway. (National Research Corporation, Canada).

DESROCHES, C. 2008. Epistatic interactions between foraging genes. (Science teacher, Havergal College, Toronto, Ontario).

ANREITER, I. 2012. Epigenetics and Behavioural Plasticity: *Drosophila* euchromatin histone methyltransferase and *foraging*. (PhD in Sokolowski lab, PDF Schmidt Fellow, Jared Simpson lab Computer Science, University of Toronto, Stanford fellow, Tenure track Assistant Professorship starting January 2022 in Biology UTSc).

MASSEY, JONATHAN 2014. The *foraging* gene of *Drosophila melanogaster* functions in aggressive interactions. (PhD student University of Michigan, Ann Arbor and Janeilia Farms US; currently PDF Harvard).

URQUART-CRONISH, MACKENZIE 2016. Gene-environment interactions in excretion: cGMP dependent protein kinase and early nutritional adversity. (PhD student University of British Columbia, Canada).

MOLLY CHEN 2021. Genes, environments and *Drosophila* social behaviour. (PhD student University of Waterloo).

**Theses Completed (Ph.D.):**

de BELLE, S.J.C. 1990. Genetic analysis of *foraging*: A behavioural gene in *Drosophila*. (Winner of the Behaviour Genetics Society Thompson Award) (Director of Research Dart Neurosciences, formerly a Tenured Associate Professor, University of Nevada and Programme Director Animal Behaviour NSF, Senior Scientist, Dart Neurosciences, San Diego, Chief Science officer Acrovirt, LLC).

RODD, F.H. 1994. The effect of social interactions on guppy life histories and behaviour. (Full Professor, Department of Ecology and Evolution, University of Toronto).

PEREIRA, H.S. 1995. Genetic dissection of foraging behaviour in *Drosophila melanogaster*. (Retired researcher, Technical University of Lisbon, Portugal.)

TSUJI, L.J.S. 1996. Selective forces that act upon spacing behaviour in the “classical” lek: Theory and tests using the sharp-tailed grouse (*Tympanachus phasianellus*). (Professor, Department of Physical and Environmental Sciences, University of Toronto at Scarborough).

SHAVER, S.A. 1996. (co supervision with Art Hilliker, York University). The identification of genetic factors influencing larval foraging and locomotor behaviour in *Drosophila melanogaster*. (Professor of Biology and Mathematics, Sir Sanford Fleming College, Peterborough Ontario).

OSBORNE, K. 2000. The *foraging* microregion in the fruit fly *Drosophila melanogaster*. (Post-doctoral fellow at the National Institute of Health, Maryland, US (Research Associate Singapore).

YANG, P. 2000. Abnormal locomotor and foraging behavior in *Drosophila* larvae: Identification and molecular analysis of *scribbler* (*sbb*). (Assistant Professor and Head of Molecular Genetics Laboratory, Pathology and Laboratory Medicine, University of Western Ontario).

WILLIAMS, K. D. 2001. Genetic analysis of diapause in *Drosophila melanogaster*. (Lecturer University of Toronto at Mississauga and Scarborough).

KAUN, K. 2007. Neurogenetic and plastic components of food-related behaviours due to the *foraging* gene in *Drosophila melanogaster*. (Robert J and Nancy D Carney Tenured Associate Professor of Neuroscience, Brown University, US).

FITZPATRICK, M.J. 2007. Evolutionary genetics of foraging behaviours. (Assistant Professor, Teaching Stream, University of Toronto, Scarborough).

RIEDL, C.A.L. 2007. Quantitative genetic analyses of behavior. (Manager IT, Health Canada).

BELAY, A. 2009. Analysis of the spatial expression of cGMP dependent protein kinase (PKG) in *Drosophila*, (Manager Genotyping Platforms, Clinical Genomics Center, Lunenfeld Institute, Mount Sinai Hospital, Toronto).

KENT, C. 2009. (co-supervised with J. Levine) Behaviour, genetics, genomics and metabolomics of satiation and hunger in rover and sitter variants (Senior Scientist, Janeilia Farms, Howard Hughes Campus, Research Associate, York University. Adjunct Professor, York University).

REAUME, C. 2011. Social environment influences performance on cognitive tasks: a role for the foraging gene (Senior Medical Science Liaison Rare Diseases at Shire Pharmaceuticals, Canada).

MILEVA-SEITZ, VIARA 2012. (co-supervised with Alison Fleming, Psychology, UTM) How genes and the environment shape what mothers say, think, and do. (Post-doctoral fellow, Netherlands; Professional Photographer).

GRAY, LINDSEY 2014. (co supervised by Steve Simpson, University of Sydney, Australia). Nutritional geometry of rovers and sitters. (Conservation Biologist and Science Outreach, New Zealand/ Australia).

ALLEN, AARON 2015. Deciphering pleiotropic effects: a molecular characterization of the *foraging* gene in *Drosophila melanogaster*. (Post-doc, University of Oxford, England).

HUGHSON, BRYON 2018. An investigation of the role of the *foraging* gene as a regulator of metabolism and feeding behaviour in *Drosophila melanogaster*.

BELAY, HIWOTE 2018. Genetic variation in the *timeless* gene mediates metabolic states of *Drosophila melanogaster* in response to photoperiod. (Technology Specialist, Clinical Genomics Center, Lunenfeld Institute, Mount Sinai Hospital, Toronto).

ANREITER, INA 2019. Transcriptional regulation of the *foraging* gene and its associated behaviours. ((PhD in Sokolowski lab, PDF Schmidt Fellow, Computer Science, University of Toronto, PDF as a Stanford Fellow, Stanford University, Tenure track Assistant Professorship starting January 2022 in Biology UTSc).

EDELSPARRE, ALLAN HOLMQUIST 2020. Movement ecology: How genes, food and climate influence dispersal in *Drosophila melanogaster*. (PDF, Sokolowski lab)

## 5. Service (selected examples)

### Editorships and Editorial Boards:

Coedited two volumes of *Proc. Natl. Acad. Sci.* 2012, 2019, one volume of *J. Neurogenetics* 2018, two volumes of *Advances in Genetics* 2009, 2012 (see publication list).  
Associate Editor -*Journal of Neurogenetics* (1996-present); *Genes Brain and Behaviour* (2000-2021).  
Review editor- *Frontiers in Behavioural Neurosciences* 2007-. *Board Member: Behavioural Genetics* 1990-; *Invertebrate Neuroscience* 2008- 2010; *FLY* 2006-.  
Topic Editors Sokolowski, M.B., Boyce W.T. *Encyclopedia on Early Childhood Development* [online]. Tremblay RE, Boivin M, Peters RDeV, eds. Epigenetics. 2017. Sokolowski MB, Boyce WT, topic eds. <http://www.child-encyclopedia.com/epigenetics/synthesis>. Content by Sokolowski MB, Boyce WT. i) Biology of the Epigenome. ii) Synthesis, iii) Gene-Environment Interplay and Epigenetic Processes. iv) Epigenetic Embedding of Early Adversity and Developmental Risk, v) Epigenetics and the Role of Developmental Time.

### Recent Major International Conferences Organized:

Scientific Co organizer: Reconciling Genes and Contexts: Exploring the Genomic and Environmental Headwaters of Early Brain Development. A Jacobs Foundation/Marbach Conference, Lake Constance, Germany. Aug 27-31 2018.  
Canadian Institute for Advanced Research and Ontario Brain Institute Autism Workshop. Toronto, Canada, 2013.  
Royal Society of Canada Symposium on Child Development, Ottawa, Canada, 2012.  
Institute for Human Development International Symposium, Toronto, Canada, 2012.  
National Academy of Sciences Symposium "Biological Embedding of Early Adversity: From Fruit Flies to Kindergarteners" Irvine, California, 2011.  
Gordon Research Conference Chair on Genes and Behaviour, Lucca, Italy 2008.

### Royal Society of Canada (RSC):

Policy Briefing Committee (Chair)-Childhood Adversities and Development. 2019-  
Selection Committee of specially Elected Fellows 2014-2016.  
Director of the Life Sciences Division of the Academy of Science 2010-2013.  
Executive Committee, Academy of Sciences, Royal Society of Canada 2010-2013.  
Chair of New Fellows Selection Committee 2010-2012.  
Member of the Joint Royal Society of Canada/Canadian Academy of Health Sciences panel on early childhood, 2010-2012.  
Chair or member of the Flavelle Medal Committee, Royal Society of Canada 2001-2004.  
Member at Large, Royal Society of Canada, Life Sciences Section 2001-2003.

### Recent National and International Grant Selection Committees Funding and Workshops:

Functional Genomics Workshop sponsored by the US National Academy of Sciences and NSF, Washington DC to identify new funding initiatives. Feb. 2020.  
Workshop on cis regulatory elements sponsored by NSF Sociogenomics Network, Champaign, Illinois, July 2018.

CIHR Behavioural Sciences A panel special member 2012, 2013.  
NIH workshop speaker on the Genetics of Social Behaviour 2007.  
NIH/NIDDK Review Panel Member 2005;  
NIH Genetics Panel Special Subcommittee for evaluating grants with conflicts of interest.  
NIH Review of Group Grants: Genetics, N.I.M.H.  
Workshop Committee Member Genes and Neural Function in Model Organisms.  
NIH/ NIMH Workshop participant: A Genetics of Social Behaviour.  
NSF Workshop on “Future Research Directions in Whole Organism Biology” Sept 2011.  
NSF Workshop on Biotechnology and the integration of the behavioural sciences.  
Steacie Science Prize Award Committee 2005, 2006.  
Life Sciences Review Panel, College of Reviewers for Canada Research Chairs 2001- present.

#### **Professional Courses:**

Cold Spring Harbour Laboratory: Advanced Molecular Cloning, 1990  
NSERC's Informed Opinions Workshop: Helping Women Translate Expertise into Media Friendly Content - Natural Sciences and Engineering Research Council of Canada (NSERC), 2013.

#### **International Graduate Teaching:**

Faculty Member Riken Institute for Brain Sciences-course Nurturing the Brain (Aug 2003), Japan.  
Faculty and lab instructor at the Drosophila Neurobiology Course (1999-2004) and Genetic course (2008) Cold Spring Harbor Laboratory, New York,  
French-American Summer School in Behaviour Genetics, US, France.  
Karolinska/University of Toronto course in Developmental Origins of Human Disease, Faculty 2004-2013 (alternate years).

#### **Selected Advisory Board Memberships:**

Fraser Mustard Program in Human Development Policy Bench 2018-  
Executive Committee member of CIHR/Maternal Adversity Vulnerability and Neurodevelopment research group 2003-  
Program Advisory Committee member, Red River College of Applied Arts, Science and Technology. Advisory board for the Science of Early Child Development (SECD) knowledge mobilization tool developed a Red River College 2013-  
Aga Khan University in East Africa-Development of a program in human development 2010-2014.  
Science of Early Child Development Advisory Committee 2013-2020.  
NSF Sociogenomics Research Coordination Network Steering Committee 2013-2019.  
Advisory panel member to the Early Years Study 3 and 4 reports for the Ontario Government.  
Member of the Gordon Conferences Research Council 2006-2008.  
Keck Centre for Behavioural Biology, North Carolina State University 2001-2006.  
International Program Committee Member of XXth International Congress in Berlin 2007.



The International Congress of Genetics in Melbourne, Australia, 2003.  
Canadian Space Life Sciences Planning 1999-2003.  
Azrieli International Postdoctoral Life Sciences Fellowship Committee 2020-

## 6. Research

### Research interests

Prof. Sokolowski is interested in how DNA variation predisposes organisms to be more or less affected by their experiences (gene-environment interactions), how our experience gets embedded in our biology (epigenetics) and finally how DNA variation interacts with epigenetic processes to affect behavior. Experiential effects can occur on different time scales. For example, nutritional or social adversity (or enrichment) can occur throughout an organism's life, in early life alone with enduring effects on later life stages, or acutely over a matter of minutes or hours. Her lab takes a genetic perspective using mostly *Drosophila melanogaster* but also rats and humans and consider both single genes and pathways. This approach provides interesting opportunities and challenges because many genes and pathways that modulate behavior are pleiotropic, they have multiple functions and do themselves exhibit plastic responses to experience. Recently her lab discovered the molecular basis of behavioural pleiotropy of the *foraging* gene in *Drosophila melanogaster*.

### Research Contributions

Collaborative research in my field is the rule. In these collaborations, Our insect (*Drosophila*, honey bee, ant and locust) research most often involves collaborations between 2 laboratories whereas our rodent and human research involved multi-lab collaborations (e.g. MAVAN research team) to which I bring the gene-environment perspective).

### Refereed Publications (trainee names are underlined)

1. Chen, M. Sokolowski, M.B. 2022. How social experience and environment impacts behavioural plasticity in *Drosophila*. *Fly* 16(1): 68-84. (Janury) DOI: 10.1080/19336934.2021.1989248
2. Gray, L.J., **Sokolowski, M.B.**, Simpson, S.J. 2021. *Drosophila* as a useful model for understanding the evolutionary physiology of obesity resistance and metabolic thrift. *Fly* 15: 47-51. (March) DOI: 10.1080/19336934.2021.1896960

3. Anreiter, I., Allen, A.M., Vasquez, O.E., To, L., Douglas, S.J., Alvarez, J.V., Ewer, J. **Sokolowski, M.B.** 2021. The *Drosophila foraging* gene plays a vital role at the start of metamorphosis for subsequent adult emergence. *J. Neurogenetics* 35(3): 179-192.
4. Dason, J. S., Sokolowski, M. B. 2021. A cGMP-dependent protein kinase, encoded by the *Drosophila foraging* gene, regulates neurotransmission through changes in synaptic structure and function. *J. Neurogenetics* 35(3): 213-221. (<https://www.tandfonline.com/doi/full/10.1080/01677063.2021.1905639>).
5. Alwash, N., Allen, A.M., Sokolowski, M.B., Levine, J.D. 2021. The *Drosophila melanogaster foraging* gene affects social networks *J. Neurogenetics* 35(3): 249-262. (<https://www.tandfonline.com/doi/full/10.1080/01677063.2021.1936517>).
6. Allen, A.M. Sokolowski, M.B. 2021. Expression and regulation of the *foraging* gene in *Drosophila melanogaster*. *J. Neurogenetics* 35(3): 192-213.(doi: 10.1080/01677063.2021.1941946).
7. Edelsparre A.H., Hefley, T., Rodriquez, M.A., Fitzpatrick, M.J., Sokolowski, M.B. 2021. Scaling up: understanding movement from individual differences to population-level dispersal. Submitted to *American Naturalist*. Posted on Biorx <https://www.biorxiv.org/content/10.1101/2021.01.04.425125v1>
8. Gatev, E., Inkster, A.M., Konwar, C., Negri, G.L., Lussier, A.A., Skakkebaek, A., **Sokolowski, M.B.**, Gravholt, C.H., Dunn, E.C., Kobor, M.S., Aristizabal, M.J. (2021). Autosomal sex-associated co-methylated regions predict biological sex from DNA methylation. *Nucleic Acids Research*, 49, 9097-9116. <https://doi.org/10.1093/nar/gkab682>
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10. **Sokolowski, M.B.** 2020. Honey bee colony aggression and indirect genetic effects. *Proc. Natl. Acad. Sci.* 117: 18148-18150. (commentary).
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12. Boyce, W.T.,\* **Sokolowski, M.B.**,\* Robinson, G.E. 2020. Genes and environments, development and time. *Proc. Natl. Acad. Sci.* 117: 23235-2341. (\*shared first authors).

13. **Sokolowski, M.B.** 2020. Functional testing of ASD genes. *Proc. Natl. Acad. Sci.* 117:26-28 (commentary).
14. Aristizabal, M. J., Ina Anreiter, I., Halldorsdottir, T., Goldenberg, A., T. W. McDade, Kobor, M., Binder, E., Mostafavi, S., Odgers, C., Sokolowski, M.B.+ O'Donnell, K.J.+ 2020. Biological Embedding of Experience: a primer on epigenetics. *Proc. Natl. Acad. Sci.* 117: 23261-23269. (\*shared last authors).
15. Dason, J.S., Cheung, A., Anreiter, I., Montemurri, V.A., Allen, A.M., Sokolowski, M.B. 2020. *Drosophila melanogaster foraging* regulates a nociceptive-like escape behavior through a developmentally plastic sensory circuit. *Proc. Natl. Acad. Sci.* 117: 23286-23291.
16. **Sokolowski, M.B., Scholer, A.A. Danckert, J.** 2019. Reply to Lyon et al.: Self-regulation and the *foraging* gene: From flies to humans. *Proc. Natl. Acad. Sci.* 116:15768-15769.
17. Anreiter, I. **Sokolowski, M.B.** 2019. The *foraging* gene and its behavioral effects: pleiotropy and plasticity. *Annual Review of Genetics* 53:373-392.
18. Dason, J.S., Allen, A.M., Vasquez, O.E., Sokolowski, M.B. 2019. Distinct functions of a cGMP-dependent protein kinase in nerve terminal growth and synaptic vesicle cycling. *J. of Cell Sci.* 132:1-12.
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22. Anreiter, I., Biergans, S., Sokolowski, M.B. 2019. Epigenetic regulation of behavior in *Drosophila melanogaster*. *Current Opinion in Behavioral Sciences.* 25: 44-50.
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- M.S., O'Donnell, K.J. MAVAN Study Team. 2018. The early care environment and DNA methylome variation in childhood. *Development and Psychopathology* 30: 891-903.
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### Refereed Books and Volumes

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172. Dason, J.S., **Sokolowski, M.B.**, Wu, C-F. 2018. A reductionist approach to understanding the nervous system: The Harold Atwood legacy. Volume in honour of Harold Atwood. *Journal of Neurogenetics*. Volume 32.
173. Editor with Tom Boyce Epigenetics: Synthesis. In: Tremblay R.E., Boivin M., Peters RDeV, eds. **Sokolowski M.B.**, Boyce W.T., topic eds. 2017. *Encyclopedia on Early Childhood Development* [online]. <http://www.child-encyclopedia.com/epigenetics/synthesis>. 5 short papers.
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### **Additional refereed publications by Sokolowski trainees (trainee names are underlined)**

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### **Patents**

COMPOSITIONS AND METHODS FOR TREATING NEURAL ANOXIA AND SPREADING DEPRESSION  
United States Patent 8,026,217 • Issued September 27, 2011  
Inventors: Ken Dawson-Scully, Mel Robertson, Marla Sokolowski, Gary Armstrong

THERMOPROTECTIVE COMPOSITIONS OF PKG PATHWAY INHIBITORS AND METHOD OF USE  
THEREOF  
United States Patent US 7,858,579, B2 • Issued December 28, 2010  
Inventors: Ken Dawson-Scully, Marla Sokolowski, Clement Kent, Mel Robertson, Gary Armstrong.

### **Non Refereed Reports**

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3. Epigenetics: Synthesis. In: Tremblay RE, Boivin M, Peters RDeV, eds. Sokolowski MB, Boyce WT, topic eds. *Encyclopedia on Early Childhood*

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  11. Hughes, K.D., Lagos, G. and **Sokolowski, M.B.** 1992. A new method for testing digging behavior in *Drosophila*. *Dros. Inf. Serv.* 71: 162-163.
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## 7. Policy Briefs

Sajedinejad, S., Sansone, G., Fallon, B., Miller, S., Birken, C., Denburg, A., Jenkins, J., Levine, J., Mishna, F., Sokolowski, M. and Stewart, S. (2021). *Utilizing Information and Communication Technologies for the Provision of Child Welfare Services During the COVID-19 Pandemic*. Toronto, Ontario: Policy Bench, Fraser Mustard Institute of Human Development, University of Toronto.

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Sansone, G., Sajedinejad, S., Sistovaris, M., Fallon, B., Miller, S., Birken, C., Denburg, A., Jenkins, J., Levine, J., Mishna, F., Sokolowski, M. and Stewart, S. (2020). *Expungement of Data in the Field of Child Welfare*. Toronto, Ontario: Policy Bench, Fraser Mustard Institute of Human Development, University of Toronto.

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## 8. Selected Recent Research Impact, Press, Knowledge Outreach

-Toronto Life Magazine Nov. 2003 issue. Brilliant Minds. Story on the top 15 scientist in Toronto.

-Globe and Mail Article on the fly *foraging* gene and Seasonal Affective Disorder in humans December 2008.

-New York Times article on Lucas and Sokolowski March 2009.

-Wade, Nicholas. "Single gene shapes the toil of ants' fighter and forager castes." - The New York Times (March 30, 2009).

-Globe and Mail Article on the MAVAN research project. Feb 17, 2009.

-Anne McIlroy. "Researchers struggle as Ottawa scales back funding." Globe and Mail (February 16, 2009):  
<http://v1.theglobeandmail.com/servlet/story/RTGAM.20090216.wresearch17/front/Front/Front/>

-Quirks and Quarks Interview Documentary on the "Gay Gene" Nov. 26 2005.

-Quirks & Quarks: Search for a "gay gene" (November 19, 2005)

-Quirks and Quarks Live 30<sup>th</sup> Anniversary Show (December 7, 2005): to discuss how the field of Genetics changed in the past 30 years.

-Quirks & Quarks "Job Swap Ants." (April 4, 2009).

-Quirks & Quarks Holiday Question Show "How fruit flies smell - without any noses?" (November 11, 2012).

-Quirks and Quarks 35th Anniversary (November 2, 2012).

-Papers have been highlighted in Faculty of a 1,000.

-Question & Answer: Marla Sokolowski - Current Biology, Volume 18, Issue 24, 23 -- December 2008, Pages R1116–R1117.

-Ben Shahar et al 2002 was chosen to be highlighted in a news story called "Mutant of the Month" Nature Genetics - 38, 1365 (2006) doi:10.1038/ng1206-1365.

-Allen et al 2017 was Chosen for a highlight in Genetics and AAAS news eurekaalert [https://www.eurekaalert.org/pub\\_releases/2017-02/uot-uot022117.php](https://www.eurekaalert.org/pub_releases/2017-02/uot-uot022117.php).

-Anreiter et al 2017 received a commentary in PNAS Ben Shahar, Y. (2017) Epigenetic switch turns on behavioral variations. Proc Natl Acad Sci U S A. 2017 Nov 21;114(47):12365-12367. doi: 10.1073/pnas.1717376114. Epub, a highlight on the CIFAR web site <https://www.cifar.ca/assets/epigenetic-key-unlock-behaviour-change/>, and it was picked up by a number of news agencies. Highlighted on the title page of it's issue. This paper was scored in the top 5% of all research outputs scored by Altmetric, with an attention score in the 96<sup>th</sup> percentile compared to outputs of the same age, and 84<sup>th</sup> percentile compared to outputs of the same age and source. This paper was featured as news piece on ScienceNewsline, Phys.org, EurekaAlert!, Scicasts, Environmental News Network, and Long Room (<https://pnas.altmetric.com/details/27522062/news>); and as a blog post on genomeweb and nplus1 (<https://pnas.altmetric.com/details/27522062/blogs>). Ina Anreiter won a CIHR 2018 Brain Star Award for this paper.

-Nature, nurture, and time: A&A with Marla Sokolowski  
<https://www.cifar.ca/cifarnews/2020/09/24/nature-nurture-and-time-g-a-with-marla->

## [sokolowski](#)

-Solo stars among the genes: From maggots' movement to voles' roles, sometimes single genes can have outside effects on behavior. By Emily Underwood Oct 22, 2020.

<https://knowablemagazine.org/article/living-world/2020/solo-stars-among-> Knowable Magazine from Annual Reviews. [genes](#)

### **Opinion—Editorials**

W. T. Boyce and M.B. Sokolowski: How childhood experience gets under our skin. Contributed to the Globe and Mail. Published February 6, 2014.

### **Recent Interviews and Media Relations**

#### **Broadcast Interviews**

-The Academic Minute-discussion of Allen et al 2017.

-The People Behind the Science with Marie McNeely, Fruitful research on gene-environment interplay in feeding behavior of fruit flies. Marla Sokolowski (2014) <http://www.peoplebehindthescience.com/dr-marla-sokolowski/>

-The Biology of Childhood Hardship; TVP The Agenda with Steve Paikin (2013-06-20). <https://www.youtube.com/watch?v=tGRzylgbaaA>

-The importance of early experience for mental health. audience stakeholders Webinar to Royal Bank Child Development initiative (2013-02-21).

-Cracking the autism enigma; Canadian Institute for Advanced Research and Ontario Brain Institute Public; Lecture on Autism. Glenn Gould Studio, (2013-02-20).

-How fruit flies smell - without any noses? Quirks & Quarks Holiday Question Show (November 11, 2012)

-Quirks and Quarks 35th Anniversary (November 2, 2012).

-Gene-Environment Interplay: Insights from Animal Models; National Academy of Sciences Sackler Colloquium: Biological Embedding of Early Social Adversity: From Fruit Flies to Kindergartners Arnold and Mabel; Beckman Center, Irvine, CA (December 10, 2011).

-The foraging Gene: Will That Be Takeout? Frontiers in Science Lecture on Genes and Behaviour", Florida Atlantic University, Boca Raton Florida, United States, Florida <http://www.youtube.com/watch?v=PMv81MGnPDc> (February 11, 2010).

-Interview to discuss Lucas, C., and Sokolowski, M.B. 2009. Molecular basis for plasticity in ant social behaviour "Job Swap Ants" Quirks and Quarks (April 4, 2009).

-Delivered several convocation speeches at the University of Toronto undergraduate and graduate graduations.

-Why are we all different-interview with Marla Sokolowski and Tom Boyce-co directors of the Child and Brain Development Programme, CIFAR, Jacobs Foundation, blog <https://jacobsfoundation.org/en/why-are-we-all-different/> and Reconciling genes and

contexts conference funded by the Jacobs Foundation, organized by Boyce and Sokolowski co sponsored by CIFAR. <https://jacobsfoundation.org/en/reconciling-genes-contexts/>

### **Recent Public Outreach Lectures**

- Conte-CBS Colloquium on Mental Health: Marla B. Sokolowski Gene-Environmental Interplay: Biological Embedding of Experience. Harvard University, Boston. Oct. 16, 2013.
- The King's College Circle Heritage Society: Special presentation: Gene-Environment interplay: biological embedding of experience, Oct. 10, 2013.
- Anderson Study Group. Experience the new paradigm. Marla Sokolowski November 2014.
- Bright Lights in the Lab Summer Camp. University of Toronto Schools and General Public. Lecture on Neuroscience: Gene by Environment Interactions in Child and Brain Development. June 2015.
- Expanding Horizons for the Early Years National Institute on Infant Mental Health. Panel Discussant. April 27, 2017. Toronto Airport Hotel. Toronto.

**Text Interviews:**

- Semeniuk, Ivan. "How poverty influences a child's brain development." – The Globe and Mail (January 26, 2013).
- How to improve life for at-risk children? - Globe Editorial. The Globe and Mail (October 11, 2012).
- Pearce, Tralee. "Why the first 2,000 days of a child's life are the most important." - The Globe and Mail (September 27, 2012).-
- Question & Answer: Marla Sokolowski - Current Biology, Volume 18, Issue 24, 23 December 2008, Pages R1116–R1117
- McIlroy, Anne. "Now you can blame those extra pounds on the 'ice age' gene." -The Globe and Mail (November 22, 2008).
- Nature, nurture and time: Q&A with Marla Sokolowski-CIFAR News (Sept 24, 2020).

**9. Selected invited talks, symposia, keynote addresses (lifetime=>250):**

1. Sokolowski, M.B. Larval foraging strategies and correlated behaviors. Invited participant in a colloquium entitled: Evolutionary Genetics of Invertebrate Behavior, Gainesville, Florida, March 1983. Sponsored by the U.S. Department of Agriculture and the University of Gainesville.
2. Sokolowski, M.B. The coevolutionary relationship between preadult behavior of *Drosophila* and the searching strategies of *Drosophila* parasitoids. In: *Drosophila* parasitic wasp - Symposium, University of Leiden, The Netherlands (August 1984).
3. Sokolowski, M.B. The rover/sitter behavior - genetic polymorphism. Department of Ecology and Evolution, C.N.R.S. Gif sur Yvette, France (September 1984).
4. Sokolowski, M.B. An ecological correlate to the rover/sitter behavior genetic polymorphism, Department of Genetics, University of Utrecht, The Netherlands (September 1984).

5. Sokolowski, M.B. Ecology, Genetics and Behavior of *Drosophila* larval foraging and pupation behavior. Entomological Society of America, "Search Symposium", San Antonio, Texas (December 1984).
6. Sokolowski, M.B. Ecological genetics of *Drosophila* larval foraging and pupation behaviour. Department of Biology, Simon Fraser University, B.C. (October 1985).
7. Sokolowski, M.B. Genetics and ecology of *Drosophila melanogaster* foraging behaviour. University Seminar, Department of Physiology and Cell Biology, The University of Kansas, Lawrence, Kansas (Spring 1986).
8. Sokolowski, M.B. Behavioural strategies of *Drosophila* larvae: An ecological genetic approach. Dept. of Ecology and Evolution, Michigan State University, East Lansing, Michigan (Spring 1986).
9. Sokolowski, M.B. Ecology, genetics and behaviour of pre-adult *Drosophila*. Department of Ecology and Evolution C.N.R.S. Gif sur Yvette, France (July 1986).
10. Sokolowski, M.B. Habitat selection in *Drosophila*. Department of Entomology, University of Wageningen, The Netherlands (August 1986).
11. Sokolowski, M.B. Life history strategies of *Drosophila* larvae: An eco-behavioural-genetic approach. Bowling Green State University, Ohio (November 1986).
12. Sokolowski, M.B. Alternative foraging strategies: Genetic differences in *Drosophila* larvae. Columbia University Population Biology Seminar Series, New York (December 1986).
13. Sokolowski, M.B. *Drosophila* larval behaviour. Behaviour Genetics Society Meetings, (Evolutionary Ecology Symposium) Minnesota (June 1987).
14. Sokolowski, M.B. *Drosophila* larval behaviour and the *foraging* locus at "Mutants '89". A multidisciplinary international symposium, Mutants: Insects and Rodents, Paris, France (November 1989).
15. Sokolowski, M.B. Workshop participant "Teaching Behaviour-genetics". Behaviour Genetics Society Meetings, France (June, 1990).
16. Sokolowski, M.B. Workshop participant "Human quantitative genetic studies using behavioural phenotypes. Behaviour Genetics Society Meetings, France (June 1990).
17. Sokolowski, M.B. Genetic analysis of larval behaviour: The *foraging* locus. Dept. of Biology, Brandeis University (September 1990).



18. Sokolowski, M.B. The *foraging* locus of *D. melanogaster* at the European *Drosophila* Neurogenetics Conference (November 1990).
19. Sokolowski, M.B. The rover/sitter polymorphism in *Drosophila*. Dept. of Biology, Zoologisches Institut, Basel, Switzerland (November 1990).
20. Sokolowski, M.B. Behaviour-genetic analysis of the *foraging* locus in *Drosophila melanogaster*. Dept. of Entomology, Wageningen, The Netherlands (November 1990).
21. Sokolowski, M.B. Genetic characterization of *foraging*: A gene for behaviour in *Drosophila melanogaster*. Genetics Society of Canada, Clocks and Life History Symposium, Kingston, Ontario (June 1991).
22. Sokolowski, M.B. Update on the *foraging* locus at the European *Drosophila* Neurogenetics Conference, Glasgow, Scotland (October 1992).
23. Sokolowski WSKI, M.B. Behavior-genetic analysis of the *foraging* locus in *Drosophila melanogaster*. Jacques Monod Conference "Genetics, Neurogenetics and Behavior", Roscoff France (October 1992).
24. Sokolowski, M.B. Flexibility and constraint in behavioral systems. Dahlem Konferenzen, Free University of Berlin, Berlin, Germany (May 1993).
25. Sokolowski, M.B. Behavioural Genetics: From Nature to Molecule (June 1993). Talk given for the Genetics Society of Canada Young Scientist Award.
26. Sokolowski, M.B. *Foraging*: From Nature to Molecule. Dept. of Biology, New York University (September 1993).
27. Sokolowski, M.B. Behavioural Genetics: From Nature to Molecule, Dept. of Biology Seminar in development and molecular biology, McGill University (November 1993).
28. Sokolowski, M.B. Behaviour Genetic Analysis: From Nature to Molecule. Symposium lecture to British Animal Behaviour Society, England (December 1993).
29. Sokolowski, M.B. The *foraging* locus in *Drosophila melanogaster*. Seminar Program, Simon Fraser University, Department of Biological Sciences, Vancouver (April 1994).
30. Sokolowski, M.B. The *foraging* locus in *Drosophila melanogaster*: A cGMP-dependent protein kinase. Invited lecture at European *Drosophila* Neurobiology Conference, Montpellier, France (October 1994).

31. Sokolowski, M.B. Regulation of foraging behaviour in *Drosophila* by a cGMP-dependent protein kinase. Developmental Biology Seminar Series, Cornell University, Ithaca, N.Y. (April 1995).
32. Sokolowski, M.B. Behaviour Genetic Analysis: From Nature to Molecule. Molecular Evolution Meetings. Invited Symposium Speaker, McMaster University (May 1995).
33. Sokolowski, MB. *Drosophila* behavioural and neurogenetics. French-American Summer School in Behavioural and Neurogenetics, Penn State University, University Park, PA (June 1996).
34. Sokolowski, M.B. cGMP signalling and *Drosophila* behaviour. Cold Spring Harbor Laboratories. Cold Spring Harbor, NY (July 1996).
35. Sokolowski, M.B. cGMP signal transduction and *Drosophila* behaviour. Portuguese Meeting of Cell Biologists. Invited Plenary Speaker, Department of Medicine, University of Lisbon, Lisbon, Portugal (October 1996).
36. Sokolowski, M.B. Genetic dissection of foraging behaviour in *Drosophila*: cGMP signalling pathways. Department of Biology Seminar Series, University of Iowa (November 1996).
37. Sokolowski, M.B. cGMP signal transduction and *Drosophila* food search behaviour. Department of Biology, Seminar Series, Yale University (April 1997).
38. Sokolowski, M.B. Natural behavior polymorphism due to cGMP dependent signal transduction. *Drosophila* Neurogenetics Meetings, Cold Spring Harbor Labs (October 1997).
39. Sokolowski, M.B. Larval behavior. French American School in Neurogenetics, Orleans, France (October 1997).
40. Sokolowski, M.B. Natural polymorphism in *Drosophila* behavior due to variation in PKG. (invited seminar) Dept. of Biology, University of Nevada. (Nov. 1997).
41. Sokolowski WSKI, M.B. PKG and rover/sitter behavior in *Drosophila* (invited seminar) Genetics, Zoology and Entomology, University of North Carolina. (March 1998).
42. Sokolowski, M.B. Natural polymorphism in food search behavior due to cGMP- dependent protein kinase (invited plenary lecture) *Drosophila* Meetings, Washington D.C. (March 1998).
43. Sokolowski, M.B. Molecular genetic and evolutionary analysis of fly food search behavior. (Plenary Speaker) International Conference on Foraging, Santa Cruz, California. (July 1998).

44. Sokolowski, M.B. The role of PKG in fly food search behavior. Seminar, Department of Biology University of Illinois, Urbana. (October 1998).
45. Sokolowski, M.B. The role of PKG in fly food search behaviour. Seminar, Departments of Biology and Psychology, Edmonton, University of Alberta. (October 1998).
46. Sokolowski, M.B. Change in the expression of the *foraging* gene with food availability. Invited Workshop Participant - Environmentally Induced Changes in Gene Expression. Drosophila meetings, Seattle, Washington (March 1999)
47. Sokolowski, M.B. Fine fly dining: a role for cGMP dependent protein kinase in natural behavioural variation. Invited Plenary Lecture, International Behaviour Genetics Association Meetings, Vancouver, Canada. (July 1999).
48. Sokolowski, M.B. Molecular, Neurogenetic and Plastic components of Food-Related Behaviors in the Fruit Fly. Symposium on Model Genetic Organisms for the Study of the Nervous System and Behavior. At Society for Neurosciences, Miami Beach. Symposium run by National Institute of Drug Abuse, National Institute of Mental Health and National Institutes of Health. (Oct 1999).
49. Sokolowski, M.B. Melanogaster Meals: Will that be to go? Departmental Seminar, Biology, University of California at Irvine. (Nov. 1999).
50. Sokolowski, M.B. Fine fly dining: Will that be for here or to go? Royal Canadian Institute Special Public Lecture Series, Medical Sciences, University of Toronto. (Nov 1999).
51. Sokolowski, M.B. cGMP signalling in Drosophila food search behaviours. Dept of Biology Seminar, University of Glasgow, Glasgow, Scotland (Dec. 1999).
52. Sokolowski, M.B. A role for GC kinase in behaviour. Department of Oncology Research, Seminar, Sunnybrook Hospital, Toronto (January, 2000).
53. Sokolowski, M.B. and YANG P. Food Search behaviour in Drosophila. Symposium Lecture at the International Chemical Senses Meetings, Sarasota Florida (April, 2000).
54. Sokolowski, M.B. International Workshop on The Honey Bee as a model system for brain and behaviour research. Invited speaker, moderator and facilitator, Bellagio, Italy, (June 2000).
55. Sokolowski, M.B. Invited Speaker. Gordon Conference on Biological Regulatory Mechanisms. New Hampshire. (Aug. 2000).

56. Sokolowski, M.B. Genetic Dissection of Search Behaviour. Mt. Sinai Research Institute, Toronto. (Nov. 2000).
57. Sokolowski, M.B. Fine Dining: A role for cGMP protein kinase in behaviour. University of Rochester Biology Evolution Seminar Series. (April 2001).
58. Sokolowski, MB. The Myth of Genetic Determinism: Implications for Theories of Behavioural Development. Future for Kids Working Group. Washington DC. (April 2001).
59. Sokolowski, M.B. Behaviour Genetic Analysis in *Drosophila*. University of Paris Sud, Orsay France. Genetics Seminar. (June 2001).
60. Sokolowski, M.B. Neurogenetic Analysis of *Drosophila* larval behaviour: the *scribbler* and *foraging* genes. University of Paris Sud, Orsay, France, Neuroscience Seminar. (June 2001).
61. Sokolowski, M.B. cGMP dependent protein kinase modulates behaviour in *Drosophila*. Institute of Molecular Pathology, Graduate Student's Choice, Invited Speaker, Vienna, Austria. (June 2001).
62. Sokolowski WSKI, M.B. Molecular, genetic, neurobiological and evolutionary analysis of foraging behaviour in *Drosophila*. Evolution Seminar, C.N.R.S. Gif sur Yvette. France. (June 2001).
63. Sokolowski, M.B. *Drosophila* food search behaviour. Departmental Seminar, Duke University. (Sept. 2001).
64. Sokolowski, M.B. Behaviour Genetics: From Nature to Molecule. Life Sciences Consortium Colloquium, Penn State University. (April 2002).
65. Sokolowski, M.B. Genetic, molecular, neurobiological and environmental underpinnings of behaviour in the fruit fly. Invited Symposium Talk, Canadian Society for Brain, Behaviour and Cognitive Sciences, University of British Columbia. (May 2002).
66. Sokolowski, M.B. *Drosophila* Behaviour Genetics, Cold Spring Harbour Labs, Invited speaker, *Drosophila* Neurobiology Course. (July 2002).
67. Sokolowski SKI, M.B. Behavioural Plasticity. Invited speaker, Gordon Conference on Neuroethology: Behavior, Evolution and Neurobiology, Queen's College, Oxford, U.K. (August 18-23, 2002).
68. Sokolowski, M.B. Plasticity in Behavioural Systems. Invited symposium speaker, Free University Berlin, Germany, (Jan 2003).

69. Sokolowski, M.B. Fruit fly Fare: Will that be to go? University of Illinois, Chicago, Seminar Series, (May 2003).
70. Sokolowski, M.B. cGMP dependent protein kinase and food related behaviours. Invited symposium talk. Genetics Society of Canada. Halifax NS. (June 2003).
71. Sokolowski, M.B. What do melanogaster meals mean? Drosophila Neurobiology, Cold Spring Harbor Laboratories, (July 2003).
72. Sokolowski M.B. Model organisms in behaviour and neurogenetic analysis. Riken Brain Institute, Nurturing the Brain. Tokyo, Japan, (Aug. 2003).
73. Sokolowski, M.B. Presentation of the Genomics Module for MAVAN, Gananoque, Nov 2003.
74. Sokolowski, M.B. Gordon Research Conference in Genes and Behaviour, Invited Speaker, Feb. 2004.
75. Sokolowski, M.B. Dupont Lecture, University of Arizona, Distinguished Public Lecture in Neuroscience (March 2004).
76. Sokolowski, M.B. Centre for Insect Science, Distinguished Public Lecture in Entomology University of Arizona, (March 2004).
77. Sokolowski, M.B. Associate Learning in Drosophila larvae. University of Wurzburg, Germany (April 2004).
78. Sokolowski, M.B. Invited Speaker: The Hellenberg Symposium on Natural Genetic Variation in Behaviour. UCSD (April 2004).
79. Sokolowski, M.B. Food related behaviours in Drosophila: from nature to gene to molecule and back again. Invited Seminar, Department of Biology, State University of New York at Albany, (May 2004).
80. Sokolowski, M.B. Gene by environment interactions. Invited lecture for exchange program between University of Toronto's Development and Perinatal Biology and Karolinska University Sweden (Aug. 2004).
81. Sokolowski, M.B. Behaviour Genetics. Seminar, Department of Biology, University of Western Ontario (Oct. 2004).
82. Sokolowski, M.B. Chosen by graduate students to give a chalk talk and research seminar at Caltech (Nov 2005). Chalk talk: History of the foraging gene. Lecture: Food related behaviours: From nature to molecule and back again.

83. Sokolowski, M.B. Symposium lecture Integrative Biology Meeting, Paris France (October 2005)
84. Sokolowski, M.B. Symposium lecture, Swiss Genomics Meetings, Lausanne, Switzerland. (Oct 2005).
85. Sokolowski, M.B. MAVAN meeting, Genomics module presentation, Montreal (Jan 2006)
86. Sokolowski, M.B. Seminar, Cornell University, Department of Neurobiology and Behavior (Feb 2006).
87. Sokolowski M.B. Genes and Behaviour, Gordon Research Conference, Co-organizer (Feb 2006).
88. Sokolowski, M.B. Departmental Seminar, Neuroscience, University of British Columbia, (March 2006).
89. Sokolowski, M.B. Departmental Seminar, Dept. of Physiology, University of Toronto (April 2006).
90. Sokolowski, M.B. Departmental Seminar, Washington University, St. Louise (April 2006).
91. Sokolowski, M.B. Insect Molecular Biology, Symposium talk. Neurobiology of feeding in insects (May 2006).
92. Sokolowski, M.B. Talk to Graduate Students of Karolinska Institute Sweden visiting Toronto Subject Gene by Environment Interactions on Behavior (Aug 2006).
93. Sokolowski, M.B. Drosophila as a model for energy homeostasis. University of Alabama. (Nov 2006)
94. Sokolowski, M.B. Evolution of food related behaviors. C.N.R.S. Gif sur Yvette France, (Feb 2007)
95. Sokolowski, M.B. Roles for PKG and NPFR in food related behaviors. Max Plank Institute of Neurobiology, Munich, Germany (Feb 2007).
96. Sokolowski, M.B. Presented symposium talk at the International cGMP signalling meeting, Dresden Germany, June 2007.
97. Sokolowski, M.B. Gene by environment interactions on complex behavior. Canadian Institutes for Advanced Research Vancouver (June 2007)

98. Sokolowski, M.B. Candidate genes in psychiatry. Centre for Addiction and Mental Health, Toronto (July 2007).
99. Sokolowski, M.B. Genetic and Genomic Approaches to experience based development. Canadian Institutes of Advanced Research, Toronto Meeting (November 2007).
100. Sokolowski, M.B. Gene by environment interactions. Invited Workshop. International Congress on Infant Studies, Vancouver Canada, (March 2008).
101. Sokolowski, M.B. Invertebrate behaviour and cGMP dependent protein kinase. Invited Symposium Speaker. International Congress of Genetics, Berlin (July 2008).
102. Sokolowski, M.B. Behavior Genetics: From nature to molecule and back again, Cold Spring Harbor Laboratories, United States, New York (September 10, 2008)
103. Sokolowski, M.B. Early Experience: Implications for the Health of Canadian Children, Norlien Foundation, Calgary, Canada, Alberta (January 15, 2009)
104. Sokolowski, M.B. Keynote speaker: Translational research, CIFAR's Junior Academy Meeting, Canada, Ontario (April 15, 2009)
105. Sokolowski, M.B. PKG and the modulation of behaviour, Department of Physiology, Georgetown University, United States, Washington (April 21, 2009)
106. Sokolowski, M.B. Keynote speaker: Gene-environment interplay in behaviour, Presidential Symposium on The New Genetics, American Psychological Sciences Association, United States, California (May 20, 2009)
107. Sokolowski, M.B. Feeding and PKGs, Seminar--Department of Anatomy, UCSF, United States, California (May 29, 2009)
108. Sokolowski, M.B. Gene by Environment Interactions, Centre for Addiction and Mental Health, University of Toronto, Canada, Ontario (June 5, 2009)
109. Sokolowski, M.B. Genetic model organisms for Psychiatric Research, Hospital for Sick Children, Toronto, Canada, Ontario (June 10, 2009)
110. Sokolowski, M.B. Gene by Environment Interactions, Human Early Learning Partnership, University of British Columbia, Canada, British Columbia (June 17, 2009)
111. Sokolowski, M.B. Behaviour Genetics: The *foraging* gene, Public lecture at Temple Emmanuel, Canada, Ontario (October 7, 2009)

112. Sokolowski, M.B. Fly models for social psychology: locomotor assessors, Columbia University, United States, New York (December 10, 2009)
113. Sokolowski, M.B. The *foraging* Gene: Will That Be Takeout?, Frontiers in Science Lecture on Genes and Behaviour, Florida Atlantic University, United States, Florida (January 15, 2010)
114. Sokolowski, M.B. Introduction to EBBD, CIFAR meeting of the Experienced Based Brain and Biological Development Programme, Canada, British Columbia (February 5, 2010)
115. Sokolowski, M.B. Foraging, will that be to go?, Queens University Al Downe memorial seminar, Canada, Ontario (April 9, 2010)
116. Sokolowski, M.B. cGMP dependent protein kinases as modulators of behaviour, Department of Neurology and Surgery, McGill University, Canada, Quebec (April 20, 2010)
117. Sokolowski, M.B. Invited symposium talk: Fly foraging: feeding, metabolism, nutrition and behaviour, Conference on Insect Nutritional homeostasis, Bonn, Germany (May 12, 2010)
118. Sokolowski, M.B. Why is destiny not in our genes?, Canadian Institutes for Advanced Research Next Big Question Debate, Canada, Nova Scotia (June 25, 2010)
119. Sokolowski, M.B. Symposium talk: Conservation of gene function in behaviour, European Society for Evolutionary Developmental Biology, France (July 9, 2010)
120. Sokolowski, M.B. Gene by Environment Interactions on Behavior, Talk to Graduate Students of Karolinska Institute Sweden visiting the University of Toronto, Canada, Ontario (August 10, 2010)
121. Sokolowski, M.B. Will that be for here or to go? Neurobiology in Minibrains: From Flies to Robots and back again, ESF-EMBO symposium talk, Spain October 21, 2010)
122. Sokolowski, M.B. Animal models of food-related dysfunctions, Eating Disorders Conference, Canada, Ontario (January 11, 2011)
123. Sokolowski, M.B. Guest Speaker: Experience, the New Paradigm, Canadian Institutes for Advanced Research Board meeting, Canada, Ontario (January 14, 2011)
124. Sokolowski, M.B. Introduction to EBBD, CIFAR meeting of the EBBD programme, Canada, British Columbia (February 10, 2011)
125. Sokolowski, M.B. Biological embedding of early experience, Senior College, University of Toronto, Canada, Ontario February 23, 2011)



126. Sokolowski, M.B. The *foraging* gene, Graduate Student's choice of speaker for 2011, University of Laussane, Switzerland (March 4, 2011)
127. Sokolowski, M.B. Gene by environment interactions and epigenetics, Department of Psychiatry Residents--Center for Addiction and Mental Health, University of Toronto, Canada, Ontario (March 18, 2011)
128. Sokolowski, M.B. *foraging*: From nature to molecule. Department of Genetics, Evolution and Environment, Darwin Building, University College London, United Kingdom (March 25, 2011)
129. Sokolowski, M.B. *foraging* gene pleiotropy, Department of Zoology, Cambridge University, United Kingdom (March 29, 2011)
130. Sokolowski, M.B. Behaviour, Gene by Environment Interactions and Epigenetics, Invited Speaker. Canadian Genetic Epidemiology & Statistical Genetics Meeting, Canada, Ontario (May 11, 2011)
131. Sokolowski, M.B. Genes and Behaviour, Biology Departmental Seminar, University of Toronto, Mississauga, Canada, Ontario (September 15, 2011)
132. Sokolowski, M.B. Gene by environment interplay: the *foraging* gene, Department of Western Ontario Biology Department Seminar, Canada, Ontario (November 20, 2011)
133. Sokolowski, M.B. The *foraging* gene: should I stay or should I go, Department of Ecology and Evolutionary Biology Seminar, University of Toronto, Canada, Ontario (October 10, 2011)
134. Sokolowski, M.B. Gene by environment interactions and epigenetics: animal models for human disorders, Child Development Conference, Canada, Ontario (November 11, 2011)
135. Sokolowski, M.B. Gene-Environment Interplay, National Academy of Sciences Sackler Symposium on Biology Embedding of Early Adversity: from fruit flies to kindergarteners, Invited Speaker. United States, California (December 9, 2011)
136. Sokolowski, M.B. The *foraging* gene: Gene-environment interdependencies in behavior, Genes and Behaviour Gordon Research Conference, Invited Speaker, United States, Texas (March 21, 2012)
137. Sokolowski, M.B. Gene-environment interplay", CIFAR joint Neurocomputation and Adaptive Perception and EBBD workshop, Alton, Canada, Ontario (April 15, 2012)
138. Sokolowski, M.B. Plenary Speaker: Gene-environment interplay in behavior, International Behaviour and Neurogenetics Conference Plenary Lecture, Boulder, United States,

Colorado (May 16, 2012)

139. Sokolowski, M.B. Invited speaker: Gene-Environment Interplay in Neuroeducation symposium, Neurodevnet Conference, Toronto Sept 2012, Canada, Ontario (September 23, 2012)
140. Sokolowski, M.B. Gene-Environment interplay and the *foraging* gene, Behavioral Neurogenetics of Drosophila Larva: Janelia Farms Conference. Invited speaker Sept 2012., United States, Virginia (October 13, 2012)
141. Sokolowski, M.B. A paradigm shift in our understanding of human development, Canadian Institute for Advanced Research review of the Experience based Brain and Biological Development Programme, With Tom Boyce; Canada, Ontario (November 1, 2012)
142. Sokolowski, M.B. Symposium Speaker: Gene-Environment Interplay in early development, The New Science of Child Development; Canadian Institute for Advanced Research (CIFAR) and the Royal Society of Canada (RSC), Canada, Ontario (November 16, 2012)
143. Sokolowski, M.B. "Gene-Environment interplay", Distinguished Speaker Seminar, Department of Molecular and Cellular Biology, University of Guelph, Canada, Ontario (November 28, 2012)
144. Sokolowski, M.B. "Neurogenetics, Epigenetics and Gene-Environment Interactions", Seminar to Psychiatry residents. Center for Addiction and Mental Health, University of Toronto, Canada, Ontario (February 6, 2013)
145. Sokolowski, M.B. "Introduction of the Human Development and the Fraser Mustard Institute for Human Development", Peel Public Health; With Stephen Lye Canada, Ontario (February 7, 2013)
146. Sokolowski, M.B. "Setting the stage-transdisciplinary approaches to the autism enigma", CIFAR and Ontario Brain Institute Autism Workshop. Canada, Ontario (February 19, 2013)
147. Sokolowski, M.B. "Commentator on a lecture on autism", CIFAR and Ontario Brain Institute commentator on Public lecture on autism by Steven Scherer, Canada, Ontario (February 20, 2013) <https://www.youtube.com/watch?v=nkKkgkqMY3A>
148. Sokolowski, M.B. "Genes and Behaviour", Later life learning course, University of Toronto, Canada, Ontario (March 1, 2013)
149. Sokolowski, M.B. "Invited Plenary Lecture: Behaviour genetics in simple animal models", East Coast Nervenet Meetings, United States, Massachusetts (March 22, 2013)
150. Sokolowski, M.B. "Invited lecture: Experience-the new paradigm", The W. Garfield Weston

Foundation, United States, Florida (April 2, 2013)

151. Sokolowski, M.B. "Mechanisms underlying Gene-Environment interplay", Institute for Medical Sciences, University of Toronto, Canada, Ontario (April 4, 2013)
152. Sokolowski, M.B. "Invited lecture: Gene-Environment Interplay: From Fruit Flies to Humans", University of Toronto Senior Alumni: The Canadian Perspectives Lecture Series, Canada, Ontario, Canada, Ontario (April 17, 2013)
153. Sokolowski, M.B. "Invited seminar: Genes, Environment and Behaviour", Ecology and Evolutionary Biology, CNRS, Gif sur Yvette, France (April 29, 2013)
154. Sokolowski, M.B. "Invited speaker: Nutrition, metabolism, genes and behaviour", Insect Nutrition Meeting, Germany (May 5, 2013)
155. Sokolowski, M.B. "Gene-environment interplay in behavior", Genes, Circuits and Behaviour, Canada, Ontario (June 4, 2013)
156. Sokolowski, M.B. "Invited Speaker: How Our Genes Listen to the Environment", Canada-Israel Symposium on Brain Plasticity, Learning and Education; Organized by the Royal Society of Canada and the Israel Academy of Sciences and CIFAR, Canada, Ontario (June 15, 2013)
157. Sokolowski, M.B. "Child and Brain Development", Center on the Developing Child. Harvard University, United States, Massachusetts (June 18, 2013)
158. Sokolowski, M.B. "Why the early years matter for feeding, metabolism and life-long health", Norwegian Academy of Sciences-Ecology of Food Perception Group, Norway (August 22, 2013)
159. Sokolowski, M.B. "Gene-environment interplay: biological embedding of experience", Special presentation to The King's College Circle Heritage Society, Canada, Ontario (October 10, 2013)
160. Sokolowski, M.B. "Gene-Environmental Interplay: Biological Embedding of Experience", Harvard University, Boston (October 16, 2013)
161. Sokolowski, M.B. "Gene-environment interplay in behavior". Invited lecture Department of Organismal and Evolutionary Biology, Harvard University, Boston (Oct 17, 2013).
162. Sokolowski, M.B. "Ontario Birth Study / Fraser Mustard Institute for Human Development", Fathers' Mental Health Network, Canada, Ontario (November 21, 2013)
163. Sokolowski, M.B., McKewen, B. Rutter M. From Cells to Society: how do genes and

- environment interact. CIFAR symposium in honour of the late Clyde Hertzman, Toronto, Ontario (Feb 6 2014).
164. Sokolowski, M.B. The forging gene and obesity. Unconventional Animal Models for Studies of Obesity and Aging. Norwegian Academy of Sciences, Oslo (March 2014).
  165. Sokolowski, M.B. "Gene-environment interplay: biological embedding of experience", Presentation to the School of Psychology, Birkbeck, University of London, UK (April 9, 2014)
  166. Sokolowski, M.B. "Gene-Environment Interplay: Long-term Effects of Early Experience on Behaviour and Metabolism", Plenary Speaker. International Evolution and Medicine Conference. Simon Fraser University, Vancouver (June 2014)
  167. Sokolowski, M.B. "Gene-Environmental Interplay: Biological Embedding of Experience", Canadian Science Writers' Association panel, University of Toronto (June 2014)
  168. Sokolowski, M.B. "Gene-Environment Interplay: Feeding, nutrition and metabolism". International Society of Behaviour Ecology, Nutrition symposium NYC (July 2014).
  169. Sokolowski, M.B. "Gene-environment interplay: biological embedding of experience". Plenary speaker Graduate Symposium, Biology Department, University of Western, Ontario (chosen by graduate students). Oct 2014
  170. Sokolowski, M.B. Introductory talk for Optogenetics Meeting", Child and Brain Development Program, Canadian Institute for Advanced Research, (October 2014)
  171. Sokolowski, M.B. and Siddiqui Harroon, "Populations, Patterns and Battles" moderated by Michael Valpy. Massey College Toronto (November 2014).
  172. Sokolowski, M. B. "How do individual differences contribute to group dynamics". NAKFI, National Academy of Sciences Meeting. Irvine California (November 2014).
  173. Sokolowski, M.B. "Gene-Environment Interplay and Individual Differences". Dart Neurosciences UCSD Temporal Dynamics of Learning Center Seminar Series. University of California San Diego. (Feb 2015).
  174. Sokolowski, M.B. "Gene-Environment Interplay on Behavior". Molecular Biology, Cell Biology and Biochemistry Department Seminar Series. Brown University (April 2015).
  175. Sokolowski, M.B. "Gene-Environment Interplay and Individual Differences in Behaviour". Plenary Speaker. Jean Piaget Society International Meeting on Neuroplasticity and Change, Toronto, Ontario June 5 2015.

176. Sokolowski M.B. and Boyce, T.M. "Introduction to the Child and Brain Development Program and Research Update: Critical periods of development and the meaning of epigenetic marks". Breakfast talk to donors and policy makers. Toronto, Ontario, June 23 2015.
177. Sokolowski, M.B. "Unravelling gene-environment interplay in behaviour". Guest speaker for the 11<sup>th</sup> annual breakfast for champions. The Psychology Foundation of Canada. Toronto Board of Trade, Toronto, Ontario.
178. Sokolowski, M.B. "Gene-Environment interplay and individual differences in behaviour". Human Early Learning Partnership, School of Population and Public Health. University of British Columbia. Vancouver, BC. February 23, 2016.
179. Sokolowski, M.B. "Paths to Phenotypes". Child and Brain Development Program. Canadian Institute for Advanced Research. Vancouver, Canada, February 24, 2016.
180. Sokolowski, M. B. "Fine dining: a role for cGMP-dependent protein kinase in behaviour" Department of Biological Chemistry. Hebrew University, Jerusalem. April 10, 2016.
181. Sokolowski, M.B. "Unravelling gene-environment interplay on behaviour". Department of Psychology. Hebrew University, Jerusalem. April 12, 2016.
182. Sokolowski, M.B. Gene-Environment Interplay: Biological Embedding of Early Adversity. Science of Early Child Development Resource Conference. Ontario Institute for Studies in Education, University of Toronto. April 25, 2016.
183. Sokolowski, M.B. "The foraging gene: feeding, foraging and food deprivation". Invited Speaker. Insect Nutrition Meeting, Bonn, Germany May 2, 2016.
184. Sokolowski, M.B. "Gene-environment interplay and neuroeducation". Plenary Speaker. The International Mind, Brain and Education Conference, Toronto, Sept. 15-17, 2016.
185. Sokolowski, M.B. Gene-environment interplay and individual differences in behaviour. Ebbinghaus Colloquium, Department of Psychology, University of Toronto, Toronto, Oct. 26, 2016.
186. Sokolowski, M.B. Genes and Behaviour: *foraging* from flies to humans. Invited Seminar, Netherlands Institute of Ecology, Wageningen, Netherlands, Nov. 28, 2016.
187. Sokolowski, M.B. Unravelling Gene-Environment Interplay on Behaviour Plenary speaker, Baerends Lecture Netherlands. Animal Behaviour Meetings. Soesterbert, Netherlands. Nov. 30-Dec 4. 2016.
188. Sokolowski, M.B. Serendipity in Research. Dutch Animal Behaviour Meetings. Nov. 30.

2017.

189. Sokolowski, M.B. Gene-Environment Interplay. Laurentian University, Seminar Series. Sudbury, Ontario, Canada. March 17, 2017.
190. Sokolowski, M.B. Frontiers in Biology Seminar. Unravelling Gene-Environment Interplay in Behaviour. Wake Forest University, North Carolina. US. April 3, 2017.
191. Sokolowski, M.B. Expanding Horizons for the Early Years National Institute on Infant Mental Health –Keynote Presentation. Toronto, Canada. April 28, 2017.
192. Sokolowski, M.B. The *foraging* Gene: Unravelling Food-Related Behaviors and Metabolism. Invited Speaker and Discussion Leader. Gordon Research Conference. Modulation of Neural Circuits and Behavior, Newry Maine. June 2017.
193. Sokolowski, M.B. Introduction to the Meeting of Child and Brain Development Program with the College du France on Plasticity in Brain Development, Paris France, September 2017.
194. Sokolowski, M.B. Child and Brain Development. Talk to CIFAR donors Oct 2017.
195. Sokolowski, M.B. Biological Embedding of Early Experience. Key Note Speaker, Bold Ideas: Exploring Research, Elevating Practice, Influencing Policy. Ontario Childhood Mental Health Conference. Toronto, Canada. November 2017.
196. Sokolowski, M.B. Circuit analysis of Drosophila larval escape behaviour: Optogenetic manipulations. Child and Brain Development Program Meeting, Canadian Institute for Advanced Research. Vancouver, Canada. February 2018.
197. Sokolowski, M.B. Individual differences, gene expression and circuits. CIFAR Brain Symposium. Toronto, Canada March 2018.
198. Sokolowski, M.B. Infant Mental Health-The new science of child development. Sick Kids Hospital, Toronto, Ontario, April 2018.
199. Sokolowski, M.B. 2018. Introductory Lecture-Child and Brain Development. Jacobs Foundation Conference on The Genomic and Environment Headwaters of Early Brain Development. Marbach Castle, Lake Constance, Germany. April 2018.
200. Sokolowski, M.B. 2018. Invited plenary speaker. Gene-Environment Interplay. Mechanisms for Biological Embedding of Early Adversity. Jacobs Foundation Conference on The Genomic and Environment Headwaters of Early Brain Development. Marbach Castle, Lake Constance, Germany. April 2018.

201. Sokolowski, M.B. 2018. Invited plenary speaker. Conference sponsored by the Fondazione Menarini. The World Writes on the Body: How the Environment Impacts the Phenotype. Florence, Italy. May 2018.
202. Sokolowski, M.B. 2018. Gene-Environment Interplay on Behaviour. Invited plenary speaker. Early childhood is a time of remarkable growth, with brain development at its peak. 2<sup>nd</sup> International Early Childhood Action Congress. Hosted by Organization for Economic Co operation and Development, Paris France. June 2018.
203. Sokolowski, M.B. 2018. cis-Regulatory Evolution in Development and Behavior (REDB). NSF Sociogenomics Network. Champaign, Illinois, US. July 2018.
204. Sokolowski, M.B. 2018. Invited talk at CIFAR's Humans and the Microbiome Program Meeting. Toronto, Sept 2018.
205. Sokolowski, M.B. Dason, J.S. Cheung, A. *Drosophila melanogaster* larval escape behaviour. Invited speaker. Brain and Behaviour Symposium, International Entomology Meeting (ESA & ESC), Vancouver, British Columbia, Canada, Nov 2018.
206. Sokolowski, M.B. The *foraging* gene: Should I stay or should I go. Invited seminar. Scripps Institute, Boca Raton, Florida, Jan 2019.
207. Sokolowski, M.B. Epigenetics and behavior. Lecture to undergrad and grad students, Neuroscience, Harvard University, Boston, April 2019.
208. Sokolowski, M.B. Unravelling Gene-Environment Interplay on Behaviour, Plenary Symposium Talk, Underlying Principles of Animal Behaviours. Canadian Neuroscience Meeting. Toronto, May 2019.
209. Sokolowski, M.B. Molecular Basis of Behavioral Pleiotropy. Sociogenomics Meeting. Cornell University, Ithaca, NY. June 2019.
210. Sokolowski, M.B. The role of hormone regulated molecular modulators in traumatic responses. Session Chair and Symposium Speaker at ISPNE 2019- 50 years of Psychoneuroendocrinology. Milan, Italy. August 2019.
211. Sokolowski, M.B. Mechanisms underlying Behavioral Pleiotropy. Biology Department Seminar. McGill, University, Montreal Canada. Sept. 2019.
212. Sokolowski, M.B. Unravelling Gene-Environment Interplay on Behaviour. symposium on Resiliency and the Developing Brain, sponsored by Neuroscience and Mental Health and the Centre for Brain and Mental Health. Sick Kids Research Institute, Toronto. Nov. 2019.
213. Sokolowski, M.B. Unravelling Gene-Environment Interplay on Behaviour: the *foraging*

gene. Department of Genetics seminar, University of Wisconsin Madison. US. Feb 2021.

214. Sokolowski, M.B. The *foraging* gene as a modifier of behavior: gene regulation, pleiotropy and plasticity. Plenary lecture. Cold Spring Harbor Meeting on Biology and Genomics of Social Insects (March 2021).
215. Sokolowski, M.B. Gene-Environment Interplay on Behaviour. Sick Kids Hospital Neurology Grand Rounds, Toronto (June 2021).
216. Sokolowski, M. B. The foraging gene as a modifier of behaviour: gene regulation, pleiotropy and plasticity. Ecology and Evolution Department seminar. University of York, UK. (June 2021).
217. Sokolowski, M.B.. Pleiotropy, larval behaviour and the foraging gene. The Larval Neurogenetics-Maggot Meeting 2021. 2021Bloomington Indiana/Virtual. (Oct 2021).