Curriculum Vitae

Daniel Winer
MD FRCPC

A. Date Curriculum Vitae is Prepared: May 15, 2019

B. Biographical Information

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New Location:	Buck Institute for Research on Aging 8001 Redwood Blvd. Novato, CA, USA 94945 415-209-2000 dwiner@buckinstitute.org

1. EDUCATION

Degrees

1998 - 2002	MD, Dept of Medicine, University of Ottawa, Ottawa, Ontario, Canada
1994 - 1998	HBSc, Immunology, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training

2016	Gastrointestinal Pathology Integrated Clinical Fellowship, University Health Network, University of Toronto, Ontario, Canada
2010 - 2011	Endocrine Pathology Clinical Fellowship, University Health Network, University of Toronto, Toronto, Ontario, Canada
2007 - 2010	Post-doctoral Research Fellowship, Immunology, Stanford University, Palo Alto, California, United States, Supervisor(s): Dr. Edgar Engleman
2002 - 2007	Anatomical Pathology Residency Training, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses

2010 - 2019	Independent Practice License, Anatomical Pathology, College of Physicians and Surgeons of Ontario (CPSO), Ontario, Canada, License / Membership #: 77881
2007	Fellow (FRCPC), Anatomical Pathology, Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments

2019 July-	**Associate Professor**, Buck Institute for Research on Aging, Novato, CA, USA
2011 Oct – 2019 June	**Assistant Professor**, Departments of Laboratory Medicine and Pathobiology, Immunology, Medicine (Division of Endocrinology) University of Toronto, Toronto, Ontario, Canada
2011 Sep – 2019 June	**Scientist**, Toronto General Hospital Research Institute, Toronto, Ontario, Canada
2011 Aug – 2018 Dec	**Anatomical Pathologist**, University Health Network, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2015 Jan	**Top 10 Breakthroughs of the Decade (2005-2015)** listed by Cell Metabolism. (Distinction) *Immune cells, including T and B cells, in fat controlling metabolic disease is listed as one of the top 10 most important breakthroughs of the decade in metabolic science research.*
2012 Jun	**Amgen Early Investigator Award**, Endocrine Society, Houston, Texas, United States. (Distinction, Specialty: Endocrinology) *Selected as one of the top 5 most accomplished young scientists in endocrinology worldwide for 2012, based on cumulative accomplishment in endocrinology research.*
2012	**Benjamin Castleman Award**, United States and Canadian Academy of Pathology. (Distinction) *Top paper worldwide published in human disease pathology research by a young pathologist researcher in 2011 (age under 40). Total Amount: 1,500 CAD*
2012	**Hubert Wolfe Award**, United States and Canadian Academy of Pathology. (Distinction) *Top young endocrine pathologist scientist worldwide, based on top publication for 2011.*
2011	**Media Recognition**, International Media. (Distinction) *Featured in hundreds of websites, blogs, or newspapers across the world, including the Los Angeles Times, the Globe and Mail and Maclean's magazine (Canada's top news journal) for defining a new autoimmune component to obesity related insulin resistance, one of the world's most common diseases.*
2009	Stanford Medical News Blog. (Distinction) *Featured online in Stanford News on work done in collaboration with the University of Toronto on the immune system in Type 2 Diabetes, published in Nature Medicine.*
2008	**Dean's Fellowship**, Stanford University, Stanford, California, United States. (Distinction) *Portion of one year funding for basic research. Total Amount: 18,500 USD*

NATIONAL

Received

2017 Jun	**Canadian Association of Pathologists Junior Scientist Award,** Canadian Association of Pathologists, Charlottetown, PEI, Canada. (Distinction) Top young pathologist scientist in Canada, based on CV and submitted body of literature
2016 Jun - 2021 May	**Canada Research Chair, Immunometabolism (Tier 2)**, Canada Research Chairs Program (CRC). (Research Award) *Peer recognized excellence in research in Canada. Total Amount: 500,000 CAD*
2006	**Canadian Chairs of Pathology and Laboratory Medicine Award in Experimental Pathology**, Canadian Association of Pathologists, St. John's, Newfoundland and Labrador,

Canada. (Distinction)
Top presentation for young scientist, Canadian Association of Pathologists annual meeting. Total Amount: 500 CAD

2006 **The Dutkevich Foundation Department of Laboratory Medicine and Pathobiology Travel Award**, Canadian Association of Pathologists, St. John's, Newfoundland and Labrador, Canada. (Distinction)
Canadian Association of Pathologists annual meeting. Total Amount: 400 CAD

2005 **Canadian Chairs of Pathology and Laboratory Medicine Award in Experimental Pathology**, Canadian Association of Pathologists, Victoria, British Columbia, Canada. (Distinction)
Top presentation for young scientist, Canadian Association of Pathologists annual meeting. Total Amount: 500 CAD

2005 **The Dutkevich Foundation Department of Laboratory Medicine and Pathobiology Travel Award**, Canadian Association of Pathologists, Victoria, British Columbia, Canada. (Distinction)
Canadian Association of Pathologists annual meeting. Total Amount: 400 CAD

1994 - 1997 **Canada Scholar, academic excellence**, University of Toronto, Toronto, Ontario, Canada. (Distinction)

PROVINCIAL / REGIONAL

Received

1998 **University of Ottawa Professional Training Scholarship, academic excellence**, University of Ottawa, Ottawa, Ontario, Canada. (Distinction)
Total Amount: 300 CAD

LOCAL

Received

2011 **Top Research Poster, First Place Prize**, University of Toronto. (Research Award)
Laboratory Medicine and Pathology Research Day. Total Amount: 500 CAD

1998 **Governor General's Silver Medal Nominee**, University of Toronto. (Distinction)
Given to top graduating students at U of T – four year cumulative GPA: 4.24 out of 4.30.

1998 **Innis College Principal's Award**, University of Toronto. (Distinction)
Highest graduating cumulative GPA.

1997 **Winifred Florence Hughes Scholarship (academic excellence)**. (Distinction)
Total Amount: 930 CAD

1996 - 1997 **J.J. Stren Scholarship**. (Distinction)
Highest sessional GPA. Total Amount: 2,000 CAD

1996 **Innis College Anniversary Scholarship (academic excellence)**, University of Toronto. (Distinction)

1995 - 1998 **Faculty of Arts and Science Dean's List**, University of Toronto. (Distinction)

1995 - 1997 **Academic Scholar**, University of Toronto. (Distinction)

1995 - 1996 **T.A. Reed Scholarship**. (Distinction)
Highest cumulative GPA. Total Amount: 640 CAD

1995 **Later Life Learning Scholastic Prize**. (Distinction)
Highest cumulative GPA.

1994 **Governor General's Bronze Medal**. (Distinction)
Top academic student in my secondary school.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2012 - 2018	**Member**, Banting and Best Diabetes Institute, University of Toronto, Ontario, Canada
2012 - 2014	**Member**, Endocrine Pathology Society
2002 - 2014	**Member**, The Endocrine Society
2002 - 2014	**Member**, United States and Canadian Academy of Pathology
2002 - 2017	**Junior Member**, Canadian Association of Pathologists

Peer Review Activities

GRANT REVIEWS

External Grant Reviewer

2018 Jan	UBC Children's hospital pilot grants, Number of Reviews: 6
2016 Aug	Wellcome Trust, United Kingdom, Post-doctoral Fellowships, Number of Reviews: 1
2013 Dec	Diabetes UK, Diabetes UK, Reviewed grant on immunology of insulin resistance, Number of Reviews: 1
2012	Diabetes UK, Diabetes UK, United Kingdom, England, reviewed an operating grant on the immunology of insulin resistance, Number of Reviews: 1
2012	MRC UK, MRC UK (Medical Research Council of UK). Reviewed an operating grant on immunology of insulin resistance. Number of Reviews: 1

Internal Grant Reviewer

2018 Apr - 2018 May	Canadian Institutes of Health Research, Operating Grants, Number of Reviews: 5
2014 Nov - 2015 Jan	Canadian Institutes of Health Research, Graduate scholar grants, Number of Reviews: 15
2014 May	Canadian Diabetes Association, Canadian Diabetes Association Graduate Student and Post doc scholars awards, Number of Reviews: 15
2012 Jul – 2018 Sept	Banting and Best Diabetes Center, Grant Reviewer for operating, trainee, post doc and equipment grants for diabetes applications within UofT, Number of Reviews: >200

MANUSCRIPT REVIEWS

Reviewer

2018 Apr - present	Nature Metabolism, Number of Reviews: 1
2018 Mar - present	Nature Medicine, Number of Reviews: 1
2017 Jun - present	Cell Host and Microbe, Number of Reviews: 1
2017 May - present	Science Immunology, Number of Reviews: 2
2017 May - present	Trends in Immunology, Number of Reviews: 1
2016 Sep - present	Cell Reports, Number of Reviews: 1
2016 May - present	Nature Communications, Number of Reviews: 1
2015 Jan - present	Cell Metabolism, Number of Reviews: 8
2014 Dec - present	Journal of Clinical Investigation, Number of Reviews: 1
2014 Jul - present	Diabetes, Number of Reviews: 3
2012 Jan - present	AHA, Art, Thromb, Vascular Biology, Number of Reviews: 5
2012 - present	PNAS (Proceedings of the National Academy of Sciences), Number of Reviews: 2
2011 Jan - present	Endocrine Pathology, Number of Reviews: 2
2011 - present	Cytokine, Number of Reviews: 1
2011 - present	Lab Investigation, Number of Reviews: 1

2011 - present PLoSONE, Number of Reviews: 1

C. Academic Profile

1. RESEARCH STATEMENTS

Inflammation in Obesity and Insulin Resistance.
The goal of our laboratory is to better understand how the immune system influences physiological processes and contributes to disease, with the aim of using this information to develop new translational diagnostics and therapeutics, including preventative vaccination strategies.

Inflammation and adaptive Immunity in insulin resistance and type 2 diabetes.

Our primary research focus is to elucidate immune mediated pathways governing obesity related insulin resistance. Obesity and its major complications, including insulin resistance, are a major global cause of morbidity and mortality, and have reached epidemic proportions. Evidence is mounting that a significant contributing cause of insulin resistance is chronic inflammation in visceral adipose tissue (VAT). This inflammation was initially thought to be driven solely by macrophages of the innate immune system attracted to dying adipocytes in fat. Recently, we have demonstrated that the adaptive immune system, including T and B cells, play a significant and active role in regulating this process. These works have unmasked a novel physiological role for the adaptive immune system in the control of metabolic homeostasis. Moreover, they have played an important role in the promotion of a new field in biomedical scientific research called “immunometabolism”, which is the study of how the immune system controls metabolic disease and how metabolism controls immune cell function. We continue to investigate immune mediated mechanisms in obesity and diabetes with the aim of translating our findings to help the many people afflicted by these diseases.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2017 Sep - 2019 Aug **Principal Investigator**. Immune Mechanisms of Hepatic Glucose Dysregulation in Diet-induced Obesity and Non-alcoholic Fatty Liver Disease. Canadian Liver Foundation. Operating Grant. PI: Winer, Daniel. [Grants]

2016 Jun - 2021 May **Principal Investigator**. The Role of the Immune System in Obesity Related Insulin Resistance and Metabolic Disease. Canadian Institutes of Health Research (CIHR). Foundation Grant. PI: Winer, Daniel. [Grants]

2016 Jun - 2021 May **Principal Applicant**. Canada Research Chair, Tier 2, in Immunometabolism. Canada Research Chairs (CRC). Canada Chairs. PI: **Winer, Daniel**. [Salary Grant]

2016 Apr - 2021 Mar **Principal Investigator**. Novel Immune Mechanisms of Obesity Related Insulin Resistance and Non-alcoholic Fatty Liver Disease. Ontario Ministry of Research and Innovation Early Researcher Award. Early Researcher Award Round 11. [Grants]

2014 Sep - 2019 Sep **Co-Investigator**. Obesity and Autoimmune Risk. Canadian Institutes of Health Research

(CIHR). Operating Grant. PI: Dunn, Shannon. [Grants]

COMPLETED

2016 Feb - 2019 Feb — **Principal Investigator**. B Lymphocyte Dysregulation in the Metabolic Syndrome. Canadian Diabetes Association. Operating Grant. [Grants]

2018 Jan - 2018 Dec — **Principal Investigator**. The Role of the Immune System in Tumor-associated Pathophysiological Cachexia. UofT LMP Small Research Award. PI: Winer, Daniel. [Grants]

2016 Jul - 2017 Jun — **Co-Principal Investigator**. Disruption of Neurogenic Inflammatory Circuits as a Cause of Diabetes-related Immune Suppression and Susceptibility to Infectious Disease. Banting and Best Diabetes Centre (BBDC). Pilot and Feasibility Grant. PI: **Winer, Daniel**. Collaborator(s): Tsui, Hubert. [Grants]

2016 Jun - 2017 May — **Principal Investigator**. The Role of Type I Interferon Responsive Hepatic CD8 T cells in Obesity-Related Insulin Resistance. J.P. Bickell Foundation. [Grants]

2015 Jul - 2016 Jun — **Principal Applicant**. Mechanisms of B cell Pathogenicity in Insulin Resistance. Canadian Institutes of Health Research (CIHR). Operating Grant, Bridge Grant. PI: **Winer, Daniel**. [Grants]

2014 Jun - 2016 May — **Principal Investigator**. Defining the Role of Intestinal Immunity in Obesity Related Insulin Resistance. Banting and Best Diabetes Centre (BBDC). New Investigator Grant. [Grants]

2014 Jan - 2016 Dec — **Co-Principal Investigator**. Aberrant Handling of NETs as an Origin of Chronic Inflammation in Obesity Related Insulin Resistance. Canadian Institutes of Health Research (CIHR). China-Canada Joint Health Research Initiative Proposal. pending. Collaborator(s): Xiaoying Li, Director of Endocrinology, Shanghai Jiao Tong University. [Grants]

2012 Jul - 2017 Jun — **Principal Applicant**. Mechanisms of B Lymphocyte Dysregulation in Insulin Resistance (Clinician Scientist Salary Support). Canadian Diabetes Association. Clinician Scientist Salary Award. [Grants]
Salary Support Award.

2012 Jul - 2015 Jun — **Principal Investigator**. B Lymphocyte Dysregulation in the Metabolic Syndrome. Canadian Diabetes Association. Operating Grant. OG-3-12-3844-DW. [Grants]

2012 Apr - 2017 Mar — **Principal Applicant**. Defining Adaptive Immune Mechanisms of Insulin Resistance. Canadian Institutes of Health Research (CIHR). Operating Grant. 119414. [Grants]
Grant ranked #1 in the diabetes obesity and lipoprotein panel.

2012 - 2015 — **Co-Investigator**. Diabetes Discovery Core - UHN. Canada Foundation for Innovation (CFI). Leaders Opportunity Fund (LOF). PI: Wheeler, Michael. [Grants]
Innovative new equipment to accelerate diabetes discovery in Canada.

NON-PEER-REVIEWED GRANTS

FUNDED

2019 Jul - 2024 Jun — **Principal Applicant**. Buck Startup Funds. Buck Institute for Research on Aging

2011 Aug - 2014 Jul — **Principal Applicant**. UHN Startup Funds. University Health Network (UHN) and Toronto General Research Institute (TGRI). Lab equipment, personnel, and reagent start-up funds. [Grants]

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS

1. Tsai S, Clemente-Casares X, Zhou AC, Lei H, Ahn JJ, Chan YT, Choi O, Luck H, Woo M, Dunn SE, Engleman EG, Watts TH, Winer S and **Winer DA**. Insulin receptor mediated stimulation boosts T cell immunity during inflammation and infection. Cell Metabolism. 2018 Dec 4;28(6):922-934.e4.

2. Ghazarian M, Revelo XS, Nøhr MK, Luck H, Zeng K, Lei H, Tsai S, Schroer SA, Park YJ, Chng MHY, Shen L, D'Angelo JA, Horton P, Chapman WC, Brockmeier D, Woo M, Engleman EG, Adeyi O, Hirano N, Jin T, Gehring AJ, Winer S, **Winer DA**. Type I Interferon Responses Drive Intrahepatic T cells to Promote Metabolic Syndrome. Science Immunology. 2017 Apr 21;2(10). pii: eaai7616.

3. Luck H, Tsai S, Chung J, Clemente-Casares X, Ghazarian M, Revelo XS, Lei H, Luk CT, Shi SY, Surendra A, Copeland JK, Ahn J, Prescott D, Rasmussen BA, Chng MHY, Engleman EG, Girardin SE, Lam TK, Croitoru K, Dunn S, Philpott DJ, Guttman DS, Woo M, Winer S, **Winer DA**. Regulation of Obesity Related Insulin Resistance with Gut Anti-Inflammatory Agents. Cell Metabolism. 2015 Apr 7;21(4):527-42.

4. **Winer DA**, Winer S, Shen L, Wadia PP, Yantha J, Paltser G, Tsui H, Wu P, Davidson MG, Alonso MN, Leong HX, Glassford A, Caimol M, Kenkel JA, Tedder TF, McLaughlin T, Miklos DB, Dosch HM and Engleman EG. B cells promote insulin resistance through modulation of T cells and production of pathogenic IgG antibodies. Nat Med. 2011 May;17(5):610-7.

   Identification of the Adaptive Immune System in the Pathogenesis of Obesity Associated Metabolic Syndrome / Insulin Resistance
   Role / Impact: I have recently published a first author paper in Nature Medicine on the role of B cells and antibodies in insulin resistance. This work stemmed from a fellowship at Stanford, where on a daily basis for three years, I helped run a team that included one research associate and one fellow, who followed my scientific direction. Specifically, we found that B cells can promote insulin resistance in diet-induced obese mice. In obese humans, insulin resistance is associated with a unique profile of auto-antibodies. This paper was the most downloaded paper from Nature Medicine for over 2 months. In 2009, I collaborated on a project that was also published in Nature Medicine, on the role of T cells in insulin resistance, which was originated and developed by myself and my twin brother, Shawn Winer, the first author of that paper. These works have led to a new adaptive immune based theory as one contributing cause of obesity related insulin resistance and have become a new way of thinking in the field of metabolism. They have formed cornerstone pieces which have helped start the new field of "immunometabolism." The findings of immune cells, including T and B cells, in VAT as a cause of metabolic disease, was recently listed as one of the top ten most important "breakthroughs of the decade" (2005-2015) in metabolic research (Cell Metabolism). My work has been featured in hundreds of news media across the world, including the L.A. Times. Dan Winer and Shawn Winer are the sole inventors on patents filed jointly with Stanford University and the Hospital for Sick Children on this work. Our work may lay the ground work for the world's first preventative vaccine to obesity related insulin resistance.

5. Winer S, Chan Y, Paltser G, Truong D, Tsui H, Bahrami J, Dorfman R, Wang Y, Zielenski J, Mastronardi F, Maezawa Y, Drucker DJ, Engleman E, **Winer D**, Dosch HM. Normalization of obesity-associated insulin resistance through immunotherapy. Nat Med. 2009 Aug;15(8):921-9.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles

1. Lin YH, Luck H, Khan S, Tsai S, Schneeberger PHH, Clemente-Casares X, Lei H, Leu YL, Chan YT, Chen HY, Yang SH, Coburn B, Winer S, Winer DA. Aryl Hydrocarbon Receptor Agonist Indigo Protects Against Obesity-Related Insulin Resistance through Modulation of Intestinal and Metabolic Tissue Immunity. International Journal of Obesity. Accepted In press 2019 Apr 3. **Senior Responsible Author.**

2. Tsai S, Winer S, and Winer DA. Gut T Cells Feast on GLP-1 to Modulate Cardiometabolic Disease. Cell Metabolism. 2019 Apr 2;29(4):787-789. **Senior Responsible Author.**

3. Rojas OL, Probstel AK, Porfilio E, Wang A, Charabati M, Sun T, Lee D, Galicia G, Ramaglia V, Ward LA, Leung LYT, Najafi G, Khaleghi K, Chiaranut P, Burrows K, Robinson HG, Allanach JR, Yam J, Luck H, Campbell DJ, Allman D, Brook DG, Tomura M, Baumann R, Zamvil S, Bar-Or A, Horwitz MS, **Winer DA**, Mortha A, Mackay F, Prat A, Osborne L, Robbins C, Baranzini SE, and Gommerman JL. Recirculating Intestinal IgA-producing cells Regulate Neuroinflammation via IL10. Cell. 2019 Jan 24; 176(3): 610-624. **Coauthor or Collaborator.**

4. Tsai S, Clemente-Casares X, Zhou AC, Lei H, Ahn JJ, Chan YT, Choi O, Luck H, Woo M, Dunn SE, Engleman EG, Watts TH, Winer S and **Winer DA**. Insulin receptor mediated stimulation boosts T cell immunity during inflammation and infection. Cell Metabolism. 2018 Dec 4;28(6):922-934.e4. **Senior Responsible Author.**

5. Zhang Y, Thai K, Kepecs DM, **Winer D**, Gilbert RE. Reversing CXCL10 Deficiency Ameliorates Kidney Disease in Diabetic Mice. Am J Pathol. 2018 Dec;188(12):2763-2773. **Coauthor or Collaborator.**

6. Luck H, Winer S, and Winer DA. Adipose and intestinal immunity immunopathology in obesity related insulin resistance. Canadian Journal of Pathology. 2018 vol 9 (4): 51-62. **Senior Responsible Author**.

7. Song Z, Revelo X, Shao W, Tian L, Zeng K, Lei H, Sun HS, Woo M, **Winer D**, Jin T. Dietary curcumin intervention targets mouse white adipose tissue inflammation and brown adipose tissue UCP1 expression. Obesity. 2018 Mar;26(3):547-558. **Coauthor or Collaborator.**

8. Desai HR, Sivasubramaniyam T, Revelo XS, Schroer SA, Luk CT, Rikkala PR, Metherel AH, Dodington DW, Park YJ, Kim MJ, Rapps JA, Besla R, Robbins CS, Wagner KU, Bazinet RP, **Winer DA**, Woo M. Macrophage JAK2 deficiency protects against high-fat diet-induced inflammation. Sci Rep. 2017 Aug 9;7(1):7653. **Coauthor or Collaborator.**

9. Kenkel JA, Tseng WW, Davidson MG, Tolentino L, Choi O, Bhattacharya N, Seeley ES, **Winer DA**, Reticker-Flynn NE, Engleman EG. An immunosuppressive dendritic cell subset accumulates at secondary sites and promotes metastasis in pancreatic cancer. Cancer Res. 2017 Aug 1;77(15):4158-4170. **Coauthor or Collaborator.**

10. Ghazarian M, Revelo XS, Nøhr MK, Luck H, Zeng K, Lei H, Tsai S, Schroer SA, Park YJ, Chng MHY, Shen L, D'Angelo JA, Horton P, Chapman WC, Brockmeier D, Woo M, Engleman EG, Adeyi O, Hirano N, Jin T, Gehring AJ, Winer S, **Winer DA**. Type I Interferon Responses Drive Intrahepatic T cells to Promote Metabolic Syndrome. Science Immunology. 2017 Apr 21;2(10). pii: eaai7616. **Senior Responsible Author.**

11. Duan K, Asa SL, **Winer D**, Gelareh Z, Gentili F, Mete O. Xanthomatous hypophysitis is associated with ruptured Rathke's Cleft Cyst. Endocr Pathol. 2017 Mar;28(1):83-90. **Coauthor or Collaborator.**

12. Luk CT, Shi SY, Cai EP, Sivasubramaniyam T, Krishnamurthy M, Brunt JJ, Schroer SA, **Winer DA**, Woo M. FAK signaling controls insulin sensitivity through regulation of adipocyte survival. Nature Communications. 2017 Feb 6;8:14360. **Coauthor or Collaborator.**

13. **Winer DA**, Winer S, Dranse HJ, Lam TK. Immunological impact of the intestine in metabolic disease. The Journal of Clinical Investigation. 2017 Jan 3;127(1):33-42. **Principal Author.**

14. Bhattacharya N, Yuan R, Prestwood TR, Penny HL, DiMaio MA, Reticker-Flynn NE, Krois CR, Kenkel JA, Pham TD, Carmi Y, Tolentino L, Choi O, Wu N, Hulett R, Wang J, **Winer D**, Napoli JL, and Engleman EG. Retinoic acid drives $CD8^+$ T- cell immunity against colorectal cancer. Immunity. 2016 Sep 20;45(3):641-55. **Coauthor or Collaborator.**

15. Revelo XS, Ghazarian M, Chng MHY, Luck H, Kim JH, Zeng K, Shi SY, Tsai S, Lei H, Kenkel J, Liu CL, Tangsombatvisit S, Tsui H, Sima C, Xiao C, Shen L, Li X, Jin T, Lewis GF, Woo M, Utz PJ, Glogauer M, Engleman EG, Winer S, **Winer DA**. Nucleic Acid Targeting Pathways Promote Inflammation in Obesity Related Insulin Resistance. Cell Reports. 2016 Jul 19;16(3):717-30. **Senior Responsible Author**.

16. Revelo XS, Winer S, **Winer DA**. Starving intestinal inflammation with the amino acid sensor GCN2. Cell Metabolism. 2016 May 10;23(5):763-5. **Senior Responsible Author**.

17. Hyrcza MD, **Winer DA**, Shago M, Au K, Zadeh G,Asa SL, Mete O. TFE3-Expressing Perivascular Epithelioid Cell Neoplasm (PEComa) of the Sella Turcica. Endocr Pathol. 2017 Mar;28(1): 22-26. **Coauthor or Collaborator**.

18. Tattoli I, Killackey SA, Foerster EG, Molinaro R, Maisonneuve C, Rahman MA, Winer S, **Winer DA**, Streutker CJ, Philpott DJ, Girardin SE. NLRX1 Acts as an Epithelial-Intrinsic Tumor Suppressor through the Modulation of TNF-Mediated Proliferation. Cell Reports. 2016 Mar 22;14(11):2576-86. **Coauthor or Collaborator**.

19. **Winer DA**, Luck H, Tsai S, and Winer S. The Intestinal Immune System in Obesity and Insulin Resistance. Cell Metabolism. 2016 Mar 8;23(3):413-26. **Principal Author**.

20. Taskin OC, Gucer H, **Winer D**, Mete O. Thyroglossal Duct Cyst Associated with Xanthogranulomatous Inflammation. Head Neck Pathol. 2015 Dec;9(4):530-3. **Coauthor or Collaborator**.

21. Ghazarian M, Luck H, Revelo XS, Winer S, **Winer DA**. Immunopathology of Adipose Tissue during Metabolic Syndrome. Turk J Pathology. 2015 Nov;31 Suppl 1:172-80. **Senior Responsible Author**.

22. Shi SY, Lu SY, Sivasubramaniyam T, Revelo XS, Cai EP, Luk CT, Schroer SA, Kim RH, Tupling AR, Mak TW, Winer DA, Woo M. Parkinson-susceptibility protein DJ-1 links increased muscle ROS to metabolic reprogramming and obesity and diabetes protection. Nature Communications. 2015 Jun;16(6):7415. **Coauthor or Collaborator**.

23. Tsai S, Clemente-Casares X, Revelo X, Winer S, **Winer D**. Are obesity related insulin resistance and type 2 diabetes autoimmune diseases? Diabetes. 2015 Jun;64(6):1886-97. **Senior Responsible Author**.

24. Luck H, Tsai S, Chung J, Clemente-Casares X, Ghazarian M, Revelo XS, Lei H, Luk CT, Shi SY, Surendra A, Copeland JK, Ahn J, Prescott D, Rasmussen BA, Chng MHY, Engleman EG, Girardin SE, Lam TK, Croitoru K, Dunn S, Philpott DJ, Guttman DS, Woo M, Winer S, **Winer DA**. Regulation of Obesity Related Insulin Resistance with Gut Anti-Inflammatory Agents. Cell Metabolism. 2015 Apr 7;21(4):527-42. **Senior Responsible Author**.

25. Hyrcza MD, **Winer D**, Mete O. Images in Endocrine Pathology: Papillary Variant of Medullary Thyroid Carcinoma with Cystic Change. Endocr Pathol. 2015 Mar;26(1):87-9. **Coauthor or Collaborator**.

26. Shen L, Yen Ch'ng MH, Alonso MN, Yuan R, **Winer DA***, Engleman EG*. B-1a lymphocytes attenuate insulin resistance. Diabetes. 2015 Feb;64(2):593-603. ***Co-senior and corresponding author**.

27. Revelo XS, Tsai S, Lei H, Luck H, Ghazarian M, Tsui H, Shi SY, Schroer S, Luk C, Lin GH, Mak TW, Woo M, Winer S, **Winer DA**. Perforin is a Novel Immune Regulator of Obesity Related Insulin Resistance. Diabetes. 2015 Jan;64(1):90-103. **Senior Responsible Author**.

28. McLaughlin T, Liu LF, Lamendola C, Shen L, Morton J, Rivas H, **Winer D**, Tolentino L, Choi O, Zhang H, Ch'ng M, Engleman E. T-Cell Profile in Adipose Tissue Is Associated With Insulin Resistance and Systemic Inflammation in Humans. Arterioscler Thromb Vasc Biol. 2014 Dec;34(12):2637-43. **Coauthor or Collaborator**.

29. The Cancer Genome Atlas Research Network. Integrated Genomic Characterization of Papillary Thyroid Carcinoma. Cell. 2014 Oct 23;159(3):676-690. **Coauthor or Collaborator**.

30. Cassol CA, **Winer D**, Liu W, Guo M, Ezzat S, Asa SL. Tyrosine kinase receptors as molecular targets in pheochromocytomas and paragangliomas. Mod Pathol. 2014 Aug 1;27(8):1050-62. **Coauthor or Collaborator**.

31. Soares F, Tattoli I, Rahman MA, Robertson SJ, Belcheva A, Liu D, Streutker C, Winer S, **Winer DA**, Martin A, Philpott DJ, Arnoult D, Girardin SE. The mitochondrial protein NLRX1 controls the balance between extrinsic and intrinsic apoptosis. J Biol Chem. 2014 Jul 11;289(28):19317-30. **Coauthor or Collaborator**.

32. Wang L, Opland D, Tsai S, Luk CT, Schroer SA, Allison MB, Elia AJ, Furlonger C, Suzuki A, Paige CJ, Mak TW, **Winer DA**, Myers MG Jr, Woo M. Pten deletion in RIP-Cre neurons protects against type 2 diabetes by activating the anti-inflammatory reflex. Nat Med. 2014 May 1;20(5):484-92. **Coauthor or Collaborator**.

33. **Winer DA**, Winer S, Chng MH, Shen L, Engleman EG. B Lymphocytes in obesity-related adipose tissue inflammation and insulin resistance. Cell Mol Life Sci. 2014 Mar 1;71(6):1033-43. **Principal Author**.

34. Revelo XS, Luck H, Winer S, **Winer DA**. Morphological and inflammatory changes in visceral adipose tissue during obesity. Endocr Pathol. 2014 Mar 1;25(1):93-101. **Coauthor or Collaborator**.

35. Swardfager W, **Winer DA**, Herrmann N, Winer S, Lanctôt KL. Interleukin-17 in post-stroke neurodegeneration. Neurosci Biobehav Rev. 2013 Mar;37(3):436-47. **Coauthor or Collaborator**.

36. **Winer DA**, Winer S, Rotstein L, Asa SL, Mete O. Villous papillary thyroid carcinoma: a variant associated with marfan syndrome. Endocr Pathol. 2012 Dec;23(4):254-9. doi: 10.1007/s12022-012-9219-6. **Principal Author**.

37. Winer S, **Winer DA**. The adaptive immune system as a fundamental regulator of adipose tissue inflammation and insulin resistance. Immunol Cell Biol. 2012 Sep;90(8):755-62. **Senior Responsible Author**.

38. **Winer D**, Winer S, Shen L, Ch'ng M, Engleman E. B Lymphocytes as Emerging Mediators of Insulin Resistance. Int J Obesity. 2012 Jul;2(Suppl 1):S4-S7. **Principal Author**.

39. Alonso MN, Wong MT, Zhang AL, **Winer D**, Suhoski MM, Tolentino LL, Gaitan J, Davidson MG, Kung TH, Galel DM, Nadeau KC, Kim J, Utz PJ, Soderstrom K, Engleman EG. T(H)1, T(H)2, and T(H)17 cells instruct monocytes to differentiate into specialized dendritic cell subsets. Blood. 2011 Sep 22;118(12):3311-20. **Coauthor or Collaborator**.

40. **Winer DA**, Winer S, Shen L, Wadia PP, Yantha J, Paltser G, Tsui H, Wu P, Davidson MG, Alonso MN, Leong HX, Glassford A, Caimol M, Kenkel JA, Tedder TF, McLaughlin T, Miklos DB, Dosch HM, Engleman EG. B cells promote insulin resistance through modulation of T cells and production of pathogenic IgG antibodies. Nat Med. 2011 May;17(5):610-7. **Principal Author**.

41. Shiozaki A, Lodyga M, Bai XH, Nadesalingam J, Oyaizu T, **Winer D**, Asa SL, Keshavjee S, Liu M. XB130, a novel adaptor protein, promotes thyroid tumor growth. Am J Pathol. 2011 Jan;178(1):391-401. **Coauthor or Collaborator**.

42. Tseng WW*, **Winer D***, Kenkel JA, Choi O, Shain AH, Pollack JR, French R, Lowy AM, Engleman EG. Development of an orthotopic model of invasive pancreatic cancer in an immunocompetent murine host. Clin Cancer Res. 2010 Jul 15;16(14):3684-95. ***Co-Principal Author**.

43. Briese J, Cheng S, Ezzat S, Liu W, **Winer D**, Wagener C, Bamberger AM, Asa SL. Osteopontin (OPN) expression in thyroid carcinoma. Anticancer Res. 2010 May;30(5):1681-8. **Coauthor or Collaborator**.

44. Filatenkov A, Muller AM, Tseng WW, Dejbakhsh-Jones S, **Winer D**, Luong R, Shizuru JA, Engleman EG, Strober S. Ineffective vaccination against solid tumors can be enhanced by hematopoietic cell transplantation. J Immunol. 2009 Dec 1;183(11):7196-203. **Coauthor or Collaborator**.

45. Winer S, Paltser G, Chan Y, Tsui H, Engleman E, **Winer D**, Dosch HM. Obesity predisposes to Th17 bias. Eur J Immunol. 2009 Sep;39(9):2629-35. **Coauthor or Collaborator**.

46. Winer S, Chan Y, Paltser G, Truong D, Tsui H, Bahrami J, Dorfman R, Wang Y, Zielenski J, Mastronardi F, Maezawa Y, Drucker DJ, Engleman E, **Winer D**, Dosch HM. Normalization of obesity-associated insulin resistance through immunotherapy. Nat Med. 2009 Aug;15(8):921-9. **Coauthor or Collaborator**.

47. Liu W, Wei W, **Winer D**, Bamberger AM, Bamberger C, Wagener C, Ezzat S, Asa SL. CEACAM1 impedes thyroid cancer growth but promotes invasiveness: a putative mechanism for early metastases. Oncogene. 2007 Apr 26;26(19):2747-58. **Coauthor or Collaborator**.

48. Ezzat S, Zheng L, **Winer D**, Asa SL. Targeting N-cadherin through fibroblast growth factor receptor-4: distinct pathogenetic and therapeutic implications. Mol Endocrinol. 2006 Nov;20(11):2965-75. **Coauthor or Collaborator**.

49. **Winer D**, Alsaad KO, Bray P, Smith R, Ghazarian D. Early onset cutaneous squamous cell carcinoma associated with neurofibromatosis type 2 (NF2). Eur J Dermatol. 2006 Jul-Aug;16(4):448-9. **Principal Author**.

50. St Bernard R, Zheng L, Liu W, **Winer D**, Asa SL, Ezzat S. Fibroblast growth factor receptors as molecular targets in thyroid carcinoma. Endocrinology. 2005 Mar;146(3):1145-53. **Coauthor or Collaborator**.

51. **Winer D**, Silversides C, Israel N, Rinne C, Chang WS, Butany J. Cardiac hemochromatosis in an HFE His63Asp (187C->G) heterozygote. Can J Cardiol. 2004 Aug;20(10):971-2.

52. Winer S, Astsaturov I, Cheung R, Tsui H, Song A, Gaedigk R, **Winer D**, Sampson A, McKerlie C, Bookman A, Dosch HM. Primary Sjogren's syndrome and deficiency of ICA69. Lancet. 2002 Oct 5;360(9339):1063-9. **Coauthor or Collaborator**.

Book Chapters

1. Revelo X, Luck H, Winer S, **Winer D**. Physiology of the Immune System: Immunology of Adipose Tissue. In: Michael Ratcliffe, editor(s). Encyclopedia of Immunobiology. 1. Elsevier; 2016. In Press. **Senior Responsible Author**.

2. Winer S, Tsui H, **Winer D**. The Immunopathogenesis of Endocrine Disease. In: Ozgur Mete and Sylvia Asa, editor(s). Endocrine Pathology. 1. Cambridge Press; Jan 2016. **Senior Responsible Author**.

3. SUBMITTED PUBLICATIONS

Journal Articles

1. Luck H, Khan S, Kim JH, Copeland JK, Revelo XS, Tsai S, Chakaborty M, Chan T, Nøhr MK, Clemente-Casares X, Cheng K, Ghazarian M, Lei H, Lin YH, Okrainec A, Jackson T, Poutanen S, Gaisano H, Allard JP, Guttman DS, Conner ME, Winer S, Winer DA. Gut associated IgA immune populations regulate obesity related insulin resistance. Nature Communications. Second Revision. Submitted May 2018. **Senior Responsible Author**. *co-first authors.

F. Intellectual Property

1. PATENTS

2018 **Gut anti-inflammatory agents for regulation of high blood glucose levels.** Daniel A Winer, Shawn M. Winer, Sue YS Tsai, Helen Luck. US Patent App Serial No. 15/563,392
Non-provisional. United States of America Patent and Trademark Office.

2016 **Gut anti-inflammatory agents for regulation of high blood glucose levels.** Daniel A Winer, Shawn M. Winer, Sue YS Tsai, Helen Luck. WO2016154730A Application. WIPO (PCT).
Non-provisional. World Intellectual Property Organization.

2014 Feb **Novel uses for gut anti-inflammatory drugs in the treatment of insulin resistance and lipid malabsorption**. Applied (not yet granted). Canada. Joint Name(s): Daniel Winer and Shawn Winer.
Provisional and Non-provisional. United States of America Patent and Trademark Office.

2010 Jul **Role of B Cells, Antibodies and Their Antigenic and Receptor Targets in Obesity Associated Insulin Resistance and Type 2 Diabetes**. Granted. Patents #: Serial No.12/840,755. Joint Holder Name(s): Inventors: Stanford University (75%, Daniel Winer) & The Hospital for Sick Children (25%, Shawn Winer).
Non-provisional. United States of America Patent and Trademark Office.

2009 Jul **The Role of B Cells in Obesity Associated Type 2 Diabetes**. Granted. Patents #: Serial No. 61/271,558. Joint Holder Name(s): Inventors: Stanford University (75%, Daniel Winer) & The Hospital for Sick Children (25%, Shawn Winer).
Provisional. United States of America Patent and Trademark Office.

G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2019 Mar 23 **Invited Speaker.** The Intestinal Barrier in Obesity and Insulin Resistance: *the importance of the gut immune system.* ASPEN Nutrition Science and Practice Conference. Phoenix. AZ. United States. Presenter(s): Dan Winer

2018 Nov 15 **Invited Speaker.** Targeting Intestinal Immunity in Obesity Related Metabolic Disease. Merck Immunometabolism Research Day. San Francisco. CA. United Sates. Presenter(s): Dan Winer

2018 Aug 14 **Invited Speaker**. The Intestinal Adaptive Immune System in Obesity and Insulin Resistance: A potential new therapeutic target. Vanderbilt Digestive Disease Research Center Seminar Series. Nashville, TN, United States. Presenter(s): Dan Winer.

2018 Jun 5 **Invited Speaker.** An Immunological Basis for Insulin Resistance: The Role of Adaptive Immunity and the Emerging Field of Immunometabolism. La Jolla Institute for Allergy and Immunology. Invited Lecture Series. La Jolla. CA. United States. Presenter(s): Dan Winer.

2018 Mar 28 **Invited Speaker**. An Immunological Basis for Insulin Resistance: The Role of Adaptive Immunity and the Emerging Field of Immunometabolism. Buck Institute for Aging Research Seminar. Novato. CA. United States. Presenter(s): Dan Winer.

2018 Jan 25 **Invited Speaker**. An Immunological Basis for Insulin Resistance: The Role of Adaptive Immunity and the Emerging Field of Immunometabolism. Stanford University Lecture Series. Palo Alto. CA. United States

2017 Oct 14/15 **Invited Speaker (Keynote)**. An Immunological Basis for Insulin Resistance: The Role of Adaptive Immunity and the Emerging Field of Immunometabolism, and The Intestinal Adaptive Immune System in Obesity Related Insulin Resistance: A Potential New Therapeutic Target. The American Institute of Oral Biology 74th Annual Meeting. Palm Springs, California, United States. Presenter(s): Dan Winer

2017 Aug 5 **Invited Speaker**. The Intrahepatic Immune System in Glucose Regulation. The European Association for the Study of Diabetes. Oxford, United Kingdom. Presenter(s): Dan Winer

2017 Apr 3 **Invited Speaker**. The Intestinal Adaptive Immune System in Obesity and Insulin Resistance: A potential new therapeutic target. The Endocrine Society Annual Meeting. Orlando, Florida, United States. Presenter(s): Dan Winer

2016 Nov 11 **Invited Speaker**. The Intestinal Adaptive Immune System in Obesity and Insulin Resistance: A potential new therapeutic target. BBDC-Joslin-UCPH Conference. Inflammation and Immunity in Diabetes. Harvard Medical School. Boston, Massachusetts, United States. Presenter(s) Dan Winer

2016 Nov 3 **Invited Speaker.** The Intestinal Adaptive Immune System in Obesity and Insulin Resistance: A potential new therapeutic target. New York Academy of Sciences. Influence of the microbiome on cardio-metabolic disease. New York, New York, United States. Presenter(s): Dan Winer

2016 Aug 5 **Invited Speaker**. The Intestinal Adaptive Immune System in Obesity and Insulin Resistance: A potential new therapeutic target. FASEB Conference, Immunological Aspects of Obesity. Big Sky, Montana, United States. Presenter(s) Dan Winer

2015 Nov 13 **Invited Speaker**. The Adaptive Immune System in Obesity and Type 2 Diabetes. Albert Einstein College of Medicine. Diabetes Lecture Series. New York, New York, United States. Presenter(s): Dan Winer

2015 Sep 29 **Invited Speaker**. Intestinal Immunity in Obesity Related Insulin Resistance. Nature Medicine Conference in Immunometabolism. Chania, Greece. Presenter(s): Dan Winer

2015 Mar 12 **Invited Speaker**. Adaptive Immune System in Obesity and Type 2 Diabetes. Danish Diabetes Academy. Malaga, Spain. Presenter(s): Dan Winer

2013 Apr 22 **Facilitator**. The Role of Neutrophils in Obesity Related Insulin Resistance. Stanford University. Palo Alto, California, United States. (Trainee Presentation)

2006 Jun Targeting Tumor-Derived FGFR4 (ptd-FGFR4) Through N-Cadherin as a Therapeutic Approach to Pituitary Tumors. The Endocrine Society Annual Meeting. Boston, Massachusetts. **Winer D**, L Zheng, S Asa, and S Ezzat.

Presented Abstracts

2017 June 1 Keystone Symposia Conference: Integrating Metabolism and Immunity. Dublin, Ireland. Revelo XS, Ghazarian M, Luck H, Kim J, Zeng K, Tsai S, Lei H, Ohashi P, Hirano N, Adeyi O, Jin T, Winer S, **Winer DA**. Intrahepatic T cells promote inflammation and insulin resistance during obesity and non-alcoholic fatty liver disease.

2016 Nov 11 BBDC-Joslin-UCPH Conference. Boston, Massachusetts, USA. Luck H, Kim J, Tsai S, Ghazarian M, Revelo XS, Lei H, Conner ME, Winer S, **Winer DA**. IgA-related immune cell populations regulate obesity-induced insulin resistance.

2016 Nov 11 BBDC-Joslin-UCPH Conference. Boston, Massachusetts, USA. Revelo XS, Ghazarian M, Chng M, Luck H, Kim J, Shi S, Tsai S, Lei H, Liu CL, Tangsombatvisit S, Tsui H, Xiao C, Shen L, Li X, Jin T, Lewis GF, Woo M, Utz PJ, Glogauer M, Engleman E, Winer S, **Winer DA**. Nucleic acid-targeting pathways promote inflammation in obesity-related insulin resistance

2016 June 10 76th ADA Annual Conference. New Orleans, USA. Song Z, Revelo XS, Shao W, Zeng K, Tian L, Lei H, Woo M, **Winer D**, Jin T. Dietary curcumin intervention attenuates body weight gain in HFD mice via inhibiting fat tissue inflammation and increasing brown adipocyte UCP1 expression.

2015 Mar 12 Danish Diabetes Academy. Malaga, Spain. Presenter(s): Revelo XS, Ghazarian M, Chng MHY, Luck H, Tsai S, Lei H, Engleman E, Winer S, **Winer D**. Nucleic Acid Sensing Receptors Promote Inflammation in Obesity Related Insulin Resistance.

2014 Dec American Society of Hematology Annual Meeting. San Francisco, California, United States. Presenter(s): Tsui H, Ghazarian M, Adissu H, Dosch MH, Reis M, **Winer D**, Keating A. Sensory neuropeptides prime the splenic marginal zone for optimal humoral immunity.

2013 Dec Stanford University Department of Immunology Annual Retreat. Asilomar, California, United States. Presenter(s): Chng M, Shen L, **Winer D**, Engleman E. B-1a cells play a protective role in glucose intolerance.

2013 May 3 The IgM receptor, Toso, is critical for inflammation and diabetes induction. American Association of Immunologists. Honolulu, Hawaii, United States. Presenter(s): Lin G, Marques A, Tusche M, Brustle A, Brenner D, Luk C, Schroer S, **Winer D**, Woo M, Mak T.

2013 Mar Sunitinib Targets in Pheochromocytomas and Paragangliomas. USCAP. Baltimore, Maryland, United States. Cassol C, **Winer D**, Liu W, Asa S. (Trainee Presentation).

2011 May Aldehyde Dehydrogenase (ALDH) Activity Segregates Murine Pancreatic Cancer Stem Cells into Distinct Phenotypic Subtypes which Dictate Histopathologic Tumor Grade. Stanford University School of Medicine, Pathology Annual Research Retreat. Palo Alto, California. **Winer D**, Seeley S, Tseng W, Zahn J, Alonso M, Winer S, Leong H, Kvezereli M, Ji H, Lowy A, Engleman E.

2011 Feb Aldehyde Dehydrogenase (ALDH) Activity Segregates Murine Pancreatic Cancer Stem Cells into Distinct Phenotypic Subtypes which Dictate Histopathologic Tumor Grade. United States and Canadian Academy of Pathology Annual Meeting. San Antonio, Texas. **Winer D**, Seeley S, Tseng W, Zahn J, Alonso M, Winer S, Leong H, Kvezereli M, Ji H, Lowy A, Engleman E.

2006 Oct XB130, A Novel Thyroid Specific Adaptor Protein Involved in Ret/Ptc Signaling. American Thyroid

Association Annual Meeting. Phoenix, Arizona. Lodyga M, De Falco V, **Winer D**, Asa S, Kapus A, Santoro M, Liu M.

2006 Jun Targeting Tumor-Derived FGFR4 (ptd-FGFR4) Through N-Cadherin as a Therapeutic Approach to Pituitary Tumors. The Endocrine Society Annual Meeting. Boston, Massachusetts. **Winer D**, Zheng L, Asa S, Ezzat S.

2006 Feb Divergent Expression and Action of Fibroblast Growth Factor Receptors (FGFRs) 1 and 2 in Thyroid Cancer. The United States and Canadian Academy of Pathology Annual Meeting. Atlanta, Georgia. Presenter(s): **Winer D,** Kondo T, Ezzat S, Asa S.

2005 Mar CEACAM1 is Expressed by Human Thyroid Carcinoma Cells and Represents a Target for Vitamin D3 Therapy. The United States and Canadian Academy of Pathology Annual Meeting. San Antonio, Texas. Wei W, Lui W, **Winer D**, Bamberger AM, Ezzat S, Asa S.

2. NATIONAL

Invited Lectures and Presentations

2018 Apr 26 **Invited Speaker**. An Immunological Basis for Insulin Resistance: The Role of Adaptive Immunity and the Emerging Field of Immunometabolism. University of Western Ontario, London, ON, Canada

2017 Jun **Invited Speaker.** The Adaptive Immune System in Obesity and Type 2 Diabetes. Canadian Association of Pathologists Annual Meeting. Charlottetown, PEI, Canada. Presenter(s): Dan Winer

2016 Oct **Invited Speaker.** The Adaptive Immune System in Obesity and Type 2 Diabetes. University of British Columbia. Research Lecture Series. Vancouver, British Columbia, Canada. Presenter(s): Dan Winer

2006 Jul Targeting Tumor-Derived FGFR4 (ptd-FGFR4) Through N-Cadherin as a Therapeutic Approach to Pituitary Tumors. Canadian Association of Pathologists Annual Meeting. St. John's, Newfoundland and Labrador. **Winer D**, Zheng L, Asa S, Ezzat S.

2005 Jun CEACAM1 is a Novel Adhesion Molecule Implicated in Progression of Human Thyroid Malignancy. The Canadian Association of Pathologists Annual Meeting. Victoria, British Columbia. **Winer D**, Wei W, Liu W, Ezzat S, Asa S.

Presented Abstracts

2019 Apr 14 Keystone Symposia Conference: Immunometabolism, Metaflammation, and Metabolic Disorders. Vancouver, BC, Canada. Tsai S, Clemente-Casares X, Zhou AC, Lei H, Ahn JJ, Chan YT, Choi O, Luck H, Woo M, Dunn SE, Engleman EG, Watts TH, Winer S, Winer DA. Insulin Receptor-Mediated Stimulation Boosts T Cell Immunity during Inflammation and Infection.

2016 Feb 21 Keystone Symposia Conference: Immunometabolism in Immune Function and Inflammatory Disease. Banff, AB. Revelo XS, Ghazarian M, Chng M, Lei H, Luck H, Tsai S, Woo M, Engleman E, Winer S, **Winer DA**. Nucleic acid sensing receptors promote inflammation in obesity related insulin resistance.

2014 Mar 7 Canadian Conference on Lymphoproliferative Disorders. British Columbia, Canada. Presenter(s): Tsui H, Ghazarian M, Dosch H-M, Reis M, **Winer D**, Keating A. Sensory Neurotransmitter Deficiency as a Mechanism of Persistent Polyclonal B-cell Lymphocytosis and Splenic Marginal Zone Hyperplasia.

2013 Dec EndMS Meeting. Saint-Sauveur, Quebec, Canada. Presenter(s): Ahn J, Revelo X, **Winer D**, Dunn S. Diet-induced obesity enhances T helper 1 (Th1) cytokine production and the severity of experimental autoimmune encephalomyelitis (EAE), particularly in female mice.

2012 Jul Villous Papillary Thyroid Carcinoma: a Variant Associated with Marfan Syndrome. CAP Annual Meeting. Calgary, Alberta, Canada. **Winer D**, Winer S, Rotstein L, Asa SL, Mete O.

2009 Jun Biology and Immunology of Pancreatic Cancer Stem Cells in a Novel Mouse Model. National Cancer Institute Mouse Models of Human Cancer Consortium. Rockville, Maryland. Tseng W, **Winer D**, Kenkel J,

Pollack J, Engleman E.

2008 Jun Normalization of Obesity-Associated Insulin Resistance Through Immunotherapy: CD4+Foxp3+ Regulatory T Cells Control Glucose Homeostasis. American Diabetes Association Annual Meeting. New Orleans, Louisiana. Winer S, Chan Y, Paltser G, Truong D, Tsui H, Bahrami J, Mastronardi F, Maezawa Y, Drucker D, Engleman E, **Winer D**, Dosch H-M.

2008 Jun Dendritic and T Cell Dysregulation in Tumor-Draining Lymph-Nodes Predict Breast Cancer Recurrence. Department of Defense Breast Cancer Research Meeting. Baltimore, Maryland. Kohrt H, Setiadi AF, Levic E, Kapelner A, Angeles R, **Winer D**, Holmes S, van der Loos C, Schwartz E, Lee P.

2006 Jul Targeting Tumor-Derived FGFR4 (ptd-FGFR4) Through N-Cadherin as a Therapeutic Approach to Pituitary Tumors. Canadian Association of Pathologists Annual Meeting. St. John's, Newfoundland and Labrador. **Winer D**, Zheng L, Asa S, Ezzat S.

2005 Jun CEACAM1 is a Novel Adhesion Molecule Implicated in Progression of Human Thyroid Malignancy. The Canadian Association of Pathologists Annual Meeting. Victoria, British Columbia. **Winer D**, Wei W, Liu W, Ezzat S, Asa S.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2011 Jun **Invited Speaker**. Defining an Autoimmune Basis to Obesity Related Insulin Resistance. Department of Pathology, Queen's University Guest Lecture. Kingston, Ontario. Presenter(s): D Winer.

4. LOCAL

Invited Lectures and Presentations

2018 Sep 17 **Invited Speaker**. How the Immune System Controls Obesity Related Insulin Resistance and Fatty Liver Disease. Canadian Liver Foundation Annual Event. Eagles Nest Golf Course. Maple, Ontario, Canada.

2017 Oct 31 **Invited Speaker**. The intestinal immune system in obesity and insulin resistance. Tannenbaum Immunology Symposium. Hospital for Sick Children. Toronto, Ontario, Canada

2017 Mar 9 **Invited Speaker.** The intestinal immune system in obesity and insulin resistance. U of T – U of Paris Diabetes Symposium. Toronto, Ontario, Canada.

2016 May 12 **Invited Speaker**. The adaptive immune system in obesity related insulin resistance: Is there a potential for a vaccine against insulin resistance? UofT LMP Vaccine Research Half-Day. Toronto, Ontario, Canada.

2016 Jan 30 **Invited Lecturer**. How the Immune System Causes Insulin Resistance. UHN Surgical Pathology Education Day. Toronto, Ontario, Canada.

2015 May 6 **Invited Speaker**. Immune Regulation of Obesity and Type 2 Diabetes. Hospital for Sick Children Department of Allergy and Immunology Research Rounds. Toronto, Ontario, Canada.

2014 Sep 15 **Invited Speaker**. New insights into Adaptive Immune Regulation of Insulin Resistance. William Anderson Memorial Day. Toronto, Ontario, Canada.

2014 Apr 11 **Invited Lecturer**. New Immunological Insights into Obesity Related Insulin Resistance. University of Toronto City Wide Rounds in Endocrinology. Toronto, Canada.

2014 Mar 21 **Invited Lecturer**. New Insights into Immune Regulation of Obesity Related Insulin Resistance. Hospital for Sick Children Cell Blology Research Rounds. Toronto, Canada.

2013 Oct 8 **Invited Speaker**. New Insights into Immune System Regulation of Obesity Related Insulin Resistance.

TGRI Research Day 2013. Toronto, Ontario, Canada.

2013 Apr 19 **Speaker**. The Role of Neutrophils in Obesity Related Insulin Resistance. Banting and Best Diabetes Graduate Seminar. Toronto, Ontario, Canada. (Trainee Presentation).

2012 Dec 3 **Invited Speaker**. Adaptive Immune Regulation of Obesity Related Insulin Resistance. UofT Laboratory Medicine and Pathobiology Seminar. Toronto, Ontario, Canada.

2012 Oct 22 **Invited Speaker**. Adaptive Immune Regulation of Obesity Related Insulin Resistance. UofT Easton Graduate Seminar Series. Ontario, Canada.

2012 Jun 15 **Invited Speaker**. New Directions in Adaptive Immune Regulation of Insulin Resistance. Banting and Best Diabetes Graduate Seminar. Toronto, Canada. Presenter(s): Dan Winer.

2012 May 11 **Invited Speaker**. Adaptive Immune Regulation of Obesity Related Insulin Resistance. Banting and Best Diabetes Center Annual Scientific Day. Toronto, Canada. Presenter(s): Dan Winer.

2011 Sep **Invited Speaker**. Adaptive Immune Regulation of Obesity Related Insulin Resistance. Department of Laboratory Medicine and Pathobiology, University Health Network, William Anderson Memorial Day Invited Faculty Lecture. Toronto, Ontario. Presenter(s): D Winer.

Presented Abstracts

2019 May BBDC Annual Scientific Day, Toronto, ON, Canada. Khan S, Luck H, Revelo XS, Chan YT, Chakraborty M, Winer D. Investigating the Role of B Cells in Non-Alcoholic Fatty Liver Disease.

2011 Apr University of Toronto Department of Laboratory Medicine and Pathobiology Annual Research Day. Toronto, Ontario. Winer S*, Winer D*, Shen L*, Wadia P, Yantha J, Paltser G, Davidson M, Alonso M, Glassford A, Caimol M, Kenkel J, Tedder T, McLaughlin T, Miklos D, Dosch H-M, Engleman E (*equal contribution). B Lymphocytes Promote Insulin Resistance through Modulation of T Lymphocytes and Production of Pathogenic IgG Antibody.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2018 Sept – 2019 Apr **Primary Supervisor.** B.Sc. Kathleen Cheng. Supervisee Position: Undergraduate Immunology Project IMM450Y student. *Immunology of Obesity Related Insulin Resistance*

2018 July – 2018 Aug **Primary Supervisor.** B.Sc. Subin Park. Supervisee Position: Undergraduate Volunteer Student. *Immunology of Obesity Related Insulin Resistance*

2018 May - 2018 Aug **Primary Supervisor**. B.Sc. Christina Lam. Supervisee Position: Undergraduate Volunteer Student. *Immunology of Obesity Related Insulin Resistance*.

2018 May - 2018 Aug **Primary Supervisor**. B.Sc. Parami Dissanayake. Supervisee Position: Undergraduate Volunteer Student. *Immunology of Obesity Related Insulin Resistance*.

2017 May - 2017 Aug **Primary Supervisor**. B.Sc. Arshia Kazerouni. Supervisee Position: Undergraduate Volunteer Student. *Immunology of Obesity Related Insulin Resistance*.

2014 Jul - 2018 Apr **Primary Supervisor**. B.Sc. Justin Kim. Supervisee Position: Undergraduate Volunteer Student. *Immunology of Obesity Related Insulin Resistance*.

Graduate Education

2017 Sep - present **Primary Supervisor**. PhD. Saad Khan. Supervisee Position: Immunology Graduate Student: UofT. *Immunology of Insulin Resistance*

2017 Sep - present **Primary Supervisor**. MSc. Tao Chan. Supervisee Position: Immunology Graduate Student: UofT. *Immunology of Insulin Resistance*

2012 Sep - present	**Primary Supervisor**. PhD. Helen Luck. Supervisee Position: Immunology Graduate Student, Supervisee Institution: UofT. *Immunology of Insulin Resistance*.
2014 Sep - 2017 May	**Co-Supervisor**. MSc. Harsh Desai. Supervisee Position: Laboratory Medicine and Pathobiology Graduate Student.
2013 Sep - 2016 Aug	**Primary Supervisor**. MSc. Magar Ghazarian. Supervisee Position: Immunology Graduate Student.

Post-doctoral Education

2017 Oct - present	**Primary Supervisor.** Annie Shrestha. Annie Shrestha. Supervisee Position: Post-doctoral student and Assistant Professor of Dentistry. The Immunology of Insulin Resistance. Current Position: Assistant Professor University of Toronto, Canada
2017 Feb – 2019 May	**Primary Supervisor.** Javier Clemente Casares. Supervisee Position: Post-doctoral student. The Immunology of Insulin Resistance. Current Position: Assistant Professor, University of Alberta, Canada
2016 Jul – 2018 March	**Primary Supervisor**. Cynthia Lin. Modulating Visceral Adipose Tissue Inflammation with Organic Compounds. Current Position: Assistant professor, Chang Gung University, Taiwan
2013 Jul – 2019 March	**Primary Supervisor**. Sue Tsai. Supervisee Position: Post-doctoral student. *Immunology of Insulin Resistance*. Current Position: Assistant Professor, University of Alberta, Canada
2012 Jul - 2018 Feb	**Primary Supervisor**. Xavier Revelo. *Immunology of Insulin Resistance*. Current Position: Assistant Professor, University of Minnesota, USA
2016 Oct - 2017 Sep	**Primary Supervisor**. Mark Nohr. GPCRs in immunometabolism. Current Position: Assistant Professor, University of Copenhagen, Denmark
2012 Jul - 2014 Jun	**Primary Supervisor**. Jason Chung. Supervisee Position: Post-doctoral Scholar. *Immunology of Insulin Resistance*. Current Position: Teaching Assistant, University of Toronto, Canada

2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2018 April – present	**PhD**. Adrian Kuipery. MSc. *Immunology of Viral Hepatitis*. Supervisor. Adam Gehring
2017 Nov- present	**MSc**. Srishti Jain. *PHIP in Immune Cell metabolism*. Supervisor: Maria Rozakis.
2016 Mar - present	**PhD**. Hae-Ra Cho. *The Role of an Adapter Protein, Xb130, in tumorigenesis*. Supervisor(s): Mingyao Liu.
2016 Jan - present	**MSc**. Oriyah Barzilay. *Neutrophil subsets in periodontitis*. Supervisor(s): Michael Gloghauer.
2015 Jan - 2017 Aug	**MSc**. Zhuolun Song. *The effects of Curcumin on glucose homeostasis*. Supervisor(s): Tianru Jin.
2014 Nov – 2016 July	**MSc**. Jennifer Yam. *B cell chemokines in Multiple Sclerosis*. Supervisor(s): Jennifer Gommerman.
2014 Sep – 2016 Jun	**MSc**. Andrew Gao, Laboratory Medicine and Pathobiology. *The Immunology of Chronic Traumatic Encephelopathy*. Supervisor(s): Lili Naz Hazrati.
2014 Jul - 2016 Jun	**PhD**. Sally Yu Shi. *In vivo Role of JAK2 in the Pathogenesis of Obesity and the Metabolic Syndrome*. Supervisor(s): Minna Woo.
2013 Jan - 2017 Jun	**PhD**. Jennifer Ahn. *Effects of Obesity on Autoimmunity*. Supervisor(s): Shannon Dunn.
2012 Aug - 2014 Jun	**MSc**. Nikita Christian. Supervisee Position: MSc student, year 1. *CNS regulation of glucose metabolism*. Collaborator(s): Tony Lam.

Thesis Examiner

2018 July	**MSc**. Branson Chen. Exploring Approaches to Enhance the Anti-Leukemic Function of Double Negative T Cell Therapy. Supervisor: Li Zhang
2016 Mar	**MSc**. Paige Bauer. *Microbial Regulation of Lipid Sensing in the Upper Intestine*.

	Supervisor(s): Tony Lam.
2014 Aug	**MSc**. Clemence Cote, Physiology. *Resveratrol action in the duodenum and the regulation of insulin sensitivity*. Supervisor(s): Tony Lam.
2013 Aug	Martin Prince Alphonse. *Molecular mechanisms involved in rescue of Superantigen (SAG) activated T lymphocytes in the pathogenesis of organ specific autoimmunity.* Supervisor(s): R. Yeung.
2012 Jul	Patricia Mighiu. *Central Role of Glucagon in Glucose Metabolism*. Collaborator(s): Tony Lam.
2012 May	Cynthia Luk. *Role of Adipocyte FAK Insulin Resistance*. Supervisor(s): Minna Woo.
2012 Apr	Brittany Rasmussen. *Gut CNS Interactions in Glucose Metabolism*. Collaborator(s): Tony Lam.

Lab Employees

2011 Sep - present	Research Technician II. Helena Lei. Full Time. University Health Network
2018 Jan - present	Research Technical Assistant. Mainak Chakraborty. Full Time. University Health Network.