

Catherine Biggs, MD, MSc, FRCPC

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Current Position

2019-present **Investigator** BC Children's Hospital Research Institute

Description: Translational research program aimed at improving recognition and treatment of primary immune and atopic disorders

2017-present **Pediatric Allergist and Clinical Immunologist**
Clinical Assistant Professor

Division of Allergy & Immunology, Department of Pediatrics, University of British Columbia

Description: Attending at BC Children's Hospital, and since 2018 Co-Director of Immunology Transition Clinic at St. Paul's Hospital

Education

2017-2019 **M.Sc. in Experimental Medicine** Department of Medicine, University of British Columbia

Supervisor: Prof. Stuart Turvey

Project description: Characterization of allergic immune dysregulation caused by a heterozygous gain-of-function mutation in *JAK1*

2014-2016 **Fellow in Allergy & Immunology** Harvard Medical School & Boston Children's Hospital

2011-2014 **Resident in Pediatrics** Boston Combined Residency Program in Pediatrics, Harvard Medical School & Boston University School of Medicine

2007-2011 **M.D.** University of British Columbia

2007 **Level 1 Mandarin** Peking University

2003-2007 **B.Sc.** Interdepartmental Honours Immunology, McGill University

Experience

2016-2017 **Post-doctoral Research Fellow** University of British Columbia
Supervisor: Prof. Stuart Turvey

2016-2017 **Allergist and Clinical Immunologist** Vancouver Pediatric and Allergy Centre

Selected Grants, Scholarships and Awards

2019 **St. Paul's Hospital Foundation Early Career Investigator Award**

- Research grant valued at \$35 000, held at UBC

2019 **MSFHR Health Professional-Investigator Award**

- Provincial award valued at \$90 000/year for 3-5 years

- 2019 **BCCHRI Clinical and Translational Research Seed Grant**
• Institutional award valued at \$10 000
- 2016-2019 **AllerGen Emerging Clinician-Scientist Research Fellowship**
• National award valued at \$250 000, held at UBC
- 2016-17 **CAAIF/AllerGen Research Fellowship for Clinicians with training in Clinical Immunology and Allergy**
• National award valued at \$65 000, held at UBC
- 2016-17 **Primary Immune Deficiency Treatment Consortium (PIDTC) Research Grant**
• North American award valued at \$25 000, held at UBC
- 2015-16 **Ruth L. Kirschstein National Research Service Award (NRSA)**
• Harvard Medical School & Boston Children's Hospital
- 2015 **Von L. Meyer Award-Traveling Fellowship**
• Harvard Medical School & Boston Children's Hospital
- 2014 **Honorable Mention-Best Poster Competition**
• Canadian Society of Allergy & Clinical Immunology Annual General Meeting
- 2014 **Fredrick H. Lovejoy Jr. Residency Award, Boston Children's Hospital**
• Awarded to one graduating resident who displays clinical excellence, scholarly activity and compassion towards patients and colleagues
- 2014 **Convocation Address**
• Boston Children's Hospital Pediatrics Residency Graduation
- 2013 **Frontiers in Science Program Award**
• One candidate per residency program identified as having a promising career in academic pediatrics is selected to attend seminars in pediatric research
- 2011 **Convocation Address**
• UBC Faculty of Medicine Graduation
- 2011 **Tommy Diespecker Memorial Medical Prize in Clinical Hematology**
• UBC, awarded to student with highest standing in clinical hematology
- 2010 **Hamber Scholarship in Medicine**
• UBC, awarded to the top-ranking student in each medical school class
- 2010 **Ted and Fiona Leung Memorial Scholarship**
• UBC, awarded for excellence in the study of internal medicine
- 2010 **Jennie Gillespie Drennan Memorial Scholarship**
• UBC
- 2010 **George W. Leroux Memorial Scholarship**
• UBC, awarded for aptitude in surgery
- 2010 **Honourable Mention-Best Poster Competition**
• UBC Medical Undergraduate Research Society Poster Competition
- 2009 **Pathology Summer Research Program Bursary**
• UBC
- 2008 **Gwynne-Vaughan Memorial Award in Medicine**
• UBC
- 2004-07 **Dean's Honour List**
• McGill University
- 2006 **FRSQ-McGill Undergraduate Summer Research Award**
• McGill University
- 2006 **Academic All-Canadian**
• McGill University, awarded to varsity athletes with a grade average above 80%
- 2006 **Most Valuable Player-Women's Varsity Wrestling Team**
• McGill University
- 2003 **Bronze Medal Canadian Junior National Judo Championships**

Certifications

- 2017 **Diplomate of the American Board of Allergy & Immunology**
2016 **Royal College of Physicians and Surgeons of Canada Certification, Allergy & Clinical Immunology**
2015 **Royal College of Physicians and Surgeons of Canada Certification, Pediatrics**
2014 **Diplomate of the American Board of Pediatrics**
2014 **Licentiate of the Medical Council of Canada**

Teaching and Mentoring Experience

- 2020 **Invited Lecturer, UBC Division of Neonatology**
• *Neonatal presentations of primary immunodeficiencies* lecture for the UBC Neonatology fellowship program
- 2020 **Invited Lecturer, UBC Undergraduate Medicine Program**
• *Multisystem inflammatory syndrome in children* lecture for the UBC Year.3 Medical students
- 2019-present **Research Supervisor, UBC**
• Supervisor to 5 research trainees involved in my independent research program, including 2 medical students (both awarded competitive research studentships), 1 undergraduate student, and 4 post-graduate resident trainees.
- 2019-present **Faculty Mentor, UBC Division of Allergy and Immunology**
• Faculty mentor for 5 lectures prepared by UBC Allergy/Immunology clinical fellows
- 2019-present **Invited Lecturer, UBC Department of Pediatrics**
• *Primary immunodeficiencies* and *Multisystem Inflammatory Syndrome in Children* lectures for the UBC Pediatric Residency Program Academic Half Day
- 2019-present **Invited Lecturer, UBC Department of Pathology**
• *Immune deficiency disorders: review* and *Immune deficiency disorders: case discussions* lectures for PATH 415 Immunopathology undergraduate course
- 2019-present **Invited Lecturer, UBC Department of Microbiology & Immunology**
• *Viruses and the immune response* lecture and original case assignment for MICB 407 Viral Infections and Humans undergraduate course
- 2019 **Invited Lecturer, UBC Division of Infectious Diseases**
• *Immunology Review* and *Primary immunodeficiencies* lectures for the UBC Medical Microbiology & Infectious Diseases Academic Half Day
- 2018-present **Invited Lecturer, UBC Undergraduate Medicine Program**
• *Introduction to immunology* and *T cell* lectures for year 1 medical students
- 2017 **Graduate student mentorship, UBC**
• Played a supervisory role for research performed by M.Sc. candidate Felix Orben in the laboratory of Dr. Stuart Turvey
- 2016-2017 **Invited Lecturer, UBC Division of Allergy & Immunology**
• *Physical examination findings in primary immunodeficiency* lecture for the Allergy & Clinical Immunology Academic Half Day
- 2016 **Invited Lecturer, UBC Undergraduate Medicine Program**
• Interactive case discussion on anaphylaxis for year 1 medical students
- 2015 **Invited Lecturer, Boston Children's Hospital**
• Lecture on primary immunodeficiencies at Boston Children's Hospital Medical ICU Nurse Practitioner Education Day

- 2011-2016 **Medical Student Mentorship, Harvard Medical School**
• Supervised multiple Harvard Medical School students during their Pediatrics and Allergy/Immunology/Rheumatology rotations
- 2005-2006 **Undergraduate Student Course Assistant, McGill University**
• Teaching assistant for the Immunology section of the Physiology 209 course for two years

Professional Activities/Affiliations

- 2020-present **Immunology Medical Program** (lead)
• BC Children's Hospital Division of Allergy & immunology
- 2020-present **Multisystem Inflammatory Syndrome in Children Working Group** (lead)
• Multidisciplinary group with members from BC Children's Hospital, BC Centre for Disease Control & Childhealth BC, creating provincial guidance documents, research and quality improvement initiatives for MIS-C in BC
- 2020-present **Rare Diseases Research Group** (lead)
• BC Children's Hospital Research Institute
- 2019-present **CSACI Annual General Meeting Abstract Co-Chair**
- 2019-present **Severe Atopy Working Group** (head)
• Interdisciplinary working group with goals of improving diagnosis and treatment of patients with severe allergic immune dysregulation
- 2017-present **BC Society of Allergy and Clinical Immunology** (member)
- 2015-present **Royal College of Physicians and Surgeons of Canada** (fellow)
- 2015-present **Canadian Society of Allergy & Clinical Immunology** (member)
- 2015-2016 **Boston Combined Residency Program Handbook**
• Allergy & Immunology Faculty Section Editor
- 2014-present **American Academy of Allergy, Asthma and Immunology** (member)
- 2013-2016 **American College of Rheumatology** (member)
- 2013-2014 **Residency Program Training Committee**
• Boston Children's Hospital, Executive committee member
- 2013-present **BC Pediatrics Society** (member)
- 2007-present **British Columbia Medical Association** (member)
- 2007-present **Canadian Medical Association** (member)
- 2008-2009 **McGill Journal of Medicine**
• External Public Relations Officer, UBC division

Research Experience

- 2015-2016 **Characterization of Primary Immunodeficiencies**, Harvard Medical School
Supervisor: Luigi Notarangelo
Project description: Used animal models and human samples to characterize the molecular and genetic basis of primary immunodeficiencies.
- 2012-2016 **Autoinflammatory syndromes in a pediatric center**, Harvard Medical School
Supervisor: Fatma Dedeoglu
Project description: Helped establish an Autoinflammatory Diseases Center at Boston Children's Hospital. Performed a clinical review of autoinflammatory syndromes in a pediatric center.
- 2012-2015 **Newborn screening for Primary Immunodeficiencies**, Harvard Medical School
Supervisor: Francisco Bonilla

- Project description:** Retrospective review evaluating newborn screening for primary immunodeficiencies.
- 2008-09 **Cytotoxic and T regulatory cells in autoimmunity and immunodeficiency**, University of British Columbia
Supervisor: Rusung Tan
Project description: Investigated NKT cell regulation of uncontrolled B cell proliferation, and T cell dysfunction in autoimmune diabetes. Laboratory techniques employed were flow cytometry, tissue culture and real-time PCR.
- 2008 **Stem Cell Transplantation for Multiple Sclerosis**, University of Ottawa
Supervisor: Harry Atkins
Project Description: Independent project aimed at generating a mouse model for evaluating immune system changes following stem cell transplantation for Multiple Sclerosis.
- 2006-2007 **Molecular pathways in lung epithelial cells**, McGill University
Supervisor: Arnold Kristof
Project Description: Honours research project aimed at determining the subcellular localization of a protein complex containing the kinase Mammalian Target of Rapamycin (mTOR).
- 2004-2005 **Inhibitors of apoptosis (IAP) family of proteins**, University of Ottawa
Supervisor: Peter Liston, University of Ottawa
Project Description: Performed summer research projects evaluating the IAP family proteins and their potential in cancer therapeutics.

Addendum: Publications and Presentations

I. Peer Reviewed Articles

20. Hoiland RL, Stukas S, Cooper J, Thiara S, Chen LYC, **Biggs CM**, Hay K, Lee AYY, Shojania K, Abdulla A, Wellington CL, Sekhon MS. Amelioration of COVID-19-related cytokine storm syndrome: parallels to chimeric antigen receptor-T cell cytokine release syndrome. *Br J Haematol.* 2020 Aug;190(3):e150-e154.
19. Jia A, James E, Lu HY, Sharma M, Modi BP, **Biggs CM**, Hildebrand KJ, Chomyn A, Erdle S, Kular H, Turvey SE. Clinical IRAK4 deficiency caused by homozygosity for the novel IRAK4 (c.1049delG, p.Gly350Glufs*15) variant. *Cold Spring Harb Mol Case Stud.* 2020 Jun 12;6(3):a005298.
18. England JT, Abdulla A, **Biggs CM**, Lee AYY, Hay KA, Hoiland RL, Wellington CL, Sekhon M, Jamal S, Shojania K, Chen LYC. Weathering the COVID-19 storm: Lessons from hematologic cytokine syndromes. *Blood Rev.* 2020 May 15:100707.
17. Casanova JL, Su HC; COVID Human Genetic Effort (listed co-author). A Global Effort to Define the Human Genetics of Protective Immunity to SARS-CoV-2 Infection. *Cell.* 2020 Jun 11;181(6):1194-1199.

16. **Biggs CM**, Modi B, Steinraths M, Del Bel K, Pourshahnazari P, Griffiths C, Forrest DM, Prendiville J, Dutz JP, Turvey SE, Cameron SB. Recurrent sterile abscesses in a case of X-linked neutropenia. *Pediatr Dermatol*. 2020 Jul;37(4):742-744. doi: 10.1111/pde.14146. Epub 2020 Mar 23.
15. Bosticardo M, Yamazaki Y, Cowan J, Giardino G, Corsino C, Scalia G, Prencipe R, Ruffner M, Hill DA, Sakovich I, Yemialyanava I, Tam JS, Padem N, Elder ME, Sleasman JW, Perez E, Niebur H, Seroogy CM, Sharapova S, Gebbia J, Kleiner GI, Peake J, Abbott JK, Gelfand EW, Crestani E, **Biggs C**, Butte MJ, Hartog N, Hayward A, Chen K, Heimall J, Seeborg F, Bartnikas LM, Cooper MA, Pignata C, Bhandoola A, Notarangelo LD. Heterozygous FOXP1 Variants Cause Low TRECs and Severe T Cell Lymphopenia, Revealing a Crucial Role of FOXP1 in Supporting Early Thymopoiesis. *Am J Hum Genet*. 2019 Sep 5;105(3):549-561. PMID: 31447097.
14. Lu HY, **Biggs CM**, Blanchard-Rohner G, Fung SY, Sharma M, Turvey SE. Germline CBM-opathies: From immunodeficiency to atopy. *J Allergy Clin Immunol*. 2019 May;143(5):1661-1673. PMID: 31060714.
13. Halyabar O, Chang MH, Schoettler ML, Schwartz MA, Baris EH, Benson LA, **Biggs CM**, Gorman M, Lehmann L, Lo MS, Nigrovic PA, Platt CD, Priebe GP, Rowe J, Sundel RP, Surana NK, Weinacht KG, Mann A, Yuen JC, Meleedy-Rey P, Starmer A, Banerjee T, Dedeoglu F, Degar BA, Hazen MM, Henderson LA. Calm in the midst of cytokine storm: a collaborative approach to the diagnosis and treatment of hemophagocytic lymphohistiocytosis and macrophage activation syndrome. *Pediatr Rheumatol Online J*. 2019 Feb 14;17(1):7. PMID: 30764840.
12. Soller L, Teoh T, Baerg I, Wong T, Hildebrand KJ, Cook VE, **Biggs CM**, Lee N, Yaworski L, Cameron SB, Chan ES. Extended analysis of parent and child confidence in recognizing anaphylaxis and using the epinephrine autoinjector during oral food challenges. *J Allergy Clin Immunol Pract*. 2019 Feb;7(2):693-695. PMID: 30292923.
11. Torres A, Brownstein CA, Tembulkar SA, Graber K, Genetti C, Kleiman RJ, Sweadner K, Liu KX, Mavros C, Smedemark-Margulies N, Agrawal PB, Shi J, Beggs AH, D'Angelo E, Lincoln SH, Carroll D, Dedeoglu F, Gahl WA, **Biggs CM**, Swoboda KJ, Berry GT, Gonzalez-Heydrich J. De novo ATP1A3 and compound heterozygous NLRP3 mutations in a Child with Autism Spectrum Disorder, Episodic Fatigue and Somnolence, and Muckle-Wells Syndrome. *Mol Genet Metab Rep*. 2018 Jun 15;16:23-29. PMID: 29922587.
10. Lu HY, Sharma M, **Biggs CM**, Huang YH, Shopsowitz KE, Frosk P, Priatel JJ, Rubin TS, Turvey SE. The importance of functional validation after next generation sequencing: evaluation of a novel CARD11 variant. *Pediatr Allergy Immunol*. 2018 May 29 [Epub ahead of print]. PMID: 29808493.
9. **Biggs CM**, Haddad E, Issekutz TB, Roifman CM, Turvey SE. Newborn Screening for Severe Combined Immunodeficiency: A Primer for Clinicians. *CMAJ*. 2017 Dec 18;189(50):E1551-E1557. PMID: 29255099.
8. **Biggs CM**, Lu HY, Turvey SE. Monogenic immune disorders and severe atopic disease. *Nat Genet*. 2017 Jul 27;49(8):1162-1163. PMID: 28747751.

7. **Biggs CM**, Keles S, Chatila TA. DOCK8 deficiency: Insights into pathophysiology, clinical manifestations and management. *Clin Immunol*. 2017 Aug;181:75-82. PMID 28625885.
6. **Biggs CM**, Kostjukovits S, Dobbs K, Laakso S, Klemetti P, Valta H, Taskinen M, Mäkitie O, Notarangelo LD. Diverse Autoantibody Reactivity in Cartilage-Hair Hypoplasia. *J Clin Immunol*. 2017 Jun. PMID 28631025.
5. Delmonte OM, **Biggs CM**, Hayward A, Comeau AM, Kuehn HS, Rosenzweig SD, Notarangelo LD. First Case of X-Linked Moesin Deficiency Identified After Newborn Screening for SCID. *J Clin Immunol*. 2017 May;37(4):336-338. PMID 28378256.
4. Marwaha AK, Panagiotopoulos C, **Biggs CM**, Staiger S, Del Bel K, Hirschfeld AF, Priatel JJ, Turvey SE and Tan R. Pre-diagnostic genotyping identifies T1D subjects with impaired Treg IL-2 signaling and an elevated proportion of FOXP3+IL-17+ cells. *Genes Immun*. 2017 Jan;18(1):15-21. PMID 28053319.
3. Al-Herz W, Chu JI, van der Spek J, Raghupathy R, Massaad MM, Keles S, **Biggs CM**, Brown L, Chou J, Dbaibo G, Elisofon S, Hanna-Wakim R, Kim HB, Lehmann LE, McDonald D, Notarangelo LD, Veys P, Chatila T, Geha RS, Gaspar HB, Pai SY. Hematopoietic stem cell transplantation outcomes for 11 patients with dedicator of cytokinesis 8 deficiency. *J Allergy Clin Immunol*. 2016 Sep;138(3):852-859.e3. PMID 27130861.
2. Chung BK, Tsai K, Allan LL, Zheng DJ, Nie JC, **Biggs CM**, Hasan MR, Kozak FK, van den Elzen P, Priatel JJ, Tan R. Innate immune control of EBV-infected B cells by invariant natural killer T cells. *Blood*. 2013 Oct 10;122(15):2600-8. PMID 23974196.
1. Fielhaber JA, Han YS, Tan J, Xing S, **Biggs CM**, Joung KB, Kristof AS. Inactivation of mammalian target of rapamycin increases STAT1 nuclear content and transcriptional activity in alpha4- and protein phosphatase 2A-dependent fashion. *J Biol Chem*. 2009 Sep;4;284(36):24341-53. PMID 19553685.

II. Submitted, Accepted, or In Press Refereed Publications

6. **Biggs CM**, Turvey SE. Chronic mucocutaneous candidiasis, ACT1 Deficiency. In press for Springer's Encyclopedia of Medical Immunology: Immunodeficiency Diseases.
5. **Biggs CM**, Turvey SE. TIR signaling pathway deficiency, IRAK4 Deficiency. In press for Springer's Encyclopedia of Medical Immunology: Immunodeficiency Diseases.
4. **Biggs CM**, Turvey SE. TIR signaling pathway deficiency, MyD88 Deficiency. In press for Springer's Encyclopedia of Medical Immunology: Immunodeficiency Diseases.
3. **Biggs CM**, Turvey SE. Chronic mucocutaneous candidiasis, IL-17RA Deficiency. In press for Springer's Encyclopedia of Medical Immunology: Immunodeficiency Diseases.
2. **Biggs CM**, Turvey SE. Chronic mucocutaneous candidiasis, IL-17F Deficiency. In press for Springer's Encyclopedia of Medical Immunology: Immunodeficiency Diseases.
1. **Biggs CM**, Turvey SE. Chronic mucocutaneous candidiasis, STAT1 gain-of-function. In press for Springer's Encyclopedia of Medical Immunology: Immunodeficiency Diseases.

III. Abstracts

9. Erdle SC, Pourshahnazari P, **Biggs CM**. Monogenic diagnoses of adolescents and adults at a primary immunodeficiency transition clinic in Vancouver, Canada. Clinical Immunology Society Annual Meeting 2020.
8. **Biggs CM**, Lin E, Del Bel K, Orben F, Ragotte R, Saferali A, Mostafavi S, Weinacht KG, Ott de Bruin L, Sharma M, Shopsowitz KE, McKinnon M, Vercauteren S, Notarangelo LD, Lynn FC, Turvey SE. Autosomal dominant JAK1 gain-of-function mutation drives myelopoiesis and dysregulated T helper responses leading to severe allergic inflammation that is clinically responsive to ruxolitinib. Clinical Immunology Society Annual Meeting 2020.
7. Branch A, Modi B, Hildebrand KJ, Turvey SE, **Biggs CM**. Clinical predictors of primary immune deficiencies: a systematic review. CSACI 2019 Annual General Meeting.
6. Crestani E, **Biggs CM**, Comeau AM, Pai SY, Notarangelo LD. A Case of Leaky SCID with Variable Presentation in Two Siblings Identified By Newborn Screening. J Allergy Clin Immunol. 2015;135(2):AB15.
5. **Biggs CM**, Dedeoglu F. Spectrum of Mevalonate Kinase Deficiency: Is Colitis More Common Than We Think? Arthritis Rheumatol. 2014;66 Suppl 11:S114.
4. **Biggs CM**, Hausmann JS, Kim S, Janssen E, Nigrovic P, Fuhlbrigge R, Sundel R, Dedeoglu F. Autoinflammatory Syndromes: A Clinical Review. Pediatr Rheumatol Online J. 2013;11 Suppl 1:A144.
3. **Biggs CM**, Chung B, Nie C, Elliott T, van den Elzen P, Panagiotopoulos D, Tan R. Effects of AM580 and Rosiglitazone on B cell CD1D expression and NKT cell frequency. J Investig Med. 2010 Jan;58(1):177.
2. **Biggs CM**, Atkins H. Mouse Model of Multiple Sclerosis. J Investig Med. 2009 Jan;57(1):237.

1. **Biggs CM**, Kristof AS. STAT1 Physical Interactions in Lung Epithelial Cells. Am J Respir Crit Care Med. 2007 Apr;175(Abstracts Issue).

IV. Published Books and Chapters

2. **Biggs CM** (contributing author). DOCK8 Deficiency. IN: Case Studies in Immunology: A Clinical Companion (7th edition). Geha RS and Notarangelo LD. Garland Science.

1. **Biggs CM** (contributing author). T Cell Signaling Defects. IN: Case Studies in Immunology: A Clinical Companion (7th edition). Geha RS and Notarangelo LD. Garland Science.

V. Presentations

25. **Biggs CM**. Multisystem inflammatory syndrome in children. Children and Women's Hospital Pathology Rounds; May 2020.

24. **Biggs CM**. Multisystem inflammatory syndrome in children. Department of Pediatrics General Meeting; May 2020.

23. **Biggs CM**. Complex case rounds presentation. 3rd Western Immunology Meeting. Calgary, Alberta; January 2020.

22. **Biggs CM**. Lessons in allergic immune dysregulation from inborn errors of immunity. Dalhousie University Immunology Seminar. Halifax, Nova Scotia; December 2019.

21. **Biggs CM**. Transition Clinic at St. Paul's Hospital. UBC CME Allergy and Clinical Immunology Update. Vancouver, BC; September 2019.

20. **Biggs CM**. Characterization of a novel autosomal dominant immune dysregulatory syndrome caused by a JAK1 gain-of-function mutation. Canadian Society of Allergy and Clinical Immunology Annual General Meeting. Toronto, ON; October 2017.

19. **Biggs CM**. Vaccine Allergy. Allergy and Clinical Immunology Update. Vancouver, BC; September 2017.

18. **Biggs CM**. Characterization and successful treatment of a novel autosomal dominant immune dysregulatory syndrome caused by a JAK1 gain-of-function mutation. Primary Immune Deficiency Treatment Consortium Workshop. Bethesda, MD; May 2017.

17. **Biggs CM**, Stark D. Primary immunodeficiencies in adulthood and molecular advances in COVID. Medicine Grand Rounds, St. Paul's Hospital. Vancouver, BC; October 2016.

16. **Biggs CM**. Leaky Severe Combined Immunodeficiency and Multiple Congenital Anomalies. Boston Children's Hospital Combined Immunology/BMT Conference. Boston, MA; March 2016.

15. **Biggs CM**. Anaphylaxis. Invited Speaker-Boston Combined Residency Program in Pediatrics Senior Rounds. Boston, MA; August 2015.

14. **Biggs CM**, Hale J, Pagano-Therrien J, Hay B, Gerstel-Thompson J, Sullivan JL, Pai SY, Notarangelo LD, Bonilla F, Comeau AM. Evaluation of T and B cell molecular assays for screening of primary immunodeficiencies in the newborn period. Canadian Society of Allergy and Clinical Immunology Annual General Meeting. Ottawa, ON; October 2014.
13. **Biggs CM**. Journal Club: Characterization of a novel autoinflammatory syndrome. Boston Children's Hospital Rheumatology Grand Rounds. Boston, MA; October 2014.
12. **Biggs CM**. Pediatric hypereosinophilic syndromes. Boston Children's Hospital Immunology Conference. Boston, MA; September 2014.
11. Beinvogl B, **Biggs CM**, Portillo E. Challenging Clinical Cases. Boston Children's Hospital Grand Rounds. Boston, MA; May 2014.
10. **Biggs CM**. Immunosuppressive erythroid precursor cells compromise neonatal immunity. Boston Combined Residency Program Basic Science Journal Club. Boston MA; January 2014.
9. **Biggs CM**, Hausmann JS, Kim S, Janssen E, Nigrovic P, Fuhlbrigge R, Sundel R, Dedeoglu F. Autoinflammatory Syndromes: A Clinical Review. Autoinflammation 2013. Lausanne, Switzerland; May 2013.
8. **Biggs CM**. Initiation of Autoimmune Diabetes. Boston Combined Residency Program Basic Science Journal Club. Boston MA; April 2013.
7. **Biggs CM**. Oral Acyclovir Suppression for Neonatal Herpes. Boston Combined Residency Program Clinical Science Journal Club. Boston MA; October 2011.
6. **Biggs CM**. Hyper IgE Syndrome: Recent Advances. Montreal Children's Hospital Infectious Diseases Rounds. Montreal, QC; October 2010.
5. **Biggs CM**, Chung B, Nie C, Elliott T, van den Elzen P, Panagiotopoulos D, Tan R. Effects of AM580 and Rosiglitazone on B cell CD1D expression and NKT cell frequency. MUS Research Forum. Vancouver, BC; March 2010.
4. Abdulla S, **Biggs C**, Dhaliwal K, Thakrar D, Ford J. Pathology Small Group Teaching - A Workshop on the Learner's Perspective. Department of Pathology & Laboratory Medicine, Faculty of Medicine, University of British Columbia. Vancouver, BC; February 2009.
3. **Biggs CM**, Atkins H. Mouse Model of Multiple Sclerosis. Stem Cell Network Annual General Meeting. Vancouver, BC; November 2008.
2. Abdulla S, **Biggs C**, Dhaliwal K, Thakrar D, Kelly N. Webcast Audio Seminar Series: Student Perspective on Assessment. International Association for Medical Science Educators (IAMSE). Vancouver, BC; November 2008.
1. **Biggs CM**, Atkins H. Mouse Model for Analyzing Immune System Changes Following Autologous Hematopoietic Stem Cell Transplantation. MUS Research Forum. Vancouver, BC; November 2008.