

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
 Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Jody Jonathan Haigh		POSITION TITLE Associate Professor	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
-Queen's University at Kingston, Canada	B.Sc.H.	05/1992	Life Sciences
-Queen's University at Kingston, Canada	M.Sc.	10/1995	Biochemistry
-IMP/University of Vienna, Austria	Ph.D.	02/2000	Biochemistry
-Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital, Toronto, Canada	Postdoc	03/2004	Biomedical Sciences

A. Personal Statement

Having trained at top-level research institutes in Canada and Europe, Dr. Haigh has amassed significant experience and acclaim in the development and use of novel mouse embryonic (ES) and induced pluripotent stem (iPS) cell-based technologies to study gene function. Since becoming independent 15 years ago, Dr. Haigh has used these technologies to address the role of VEGF/VEGF-R signaling and p53 in hematopoiesis, neurobiology and cancer. In the last 8 years his lab has shifted focus and begun to unravel the novel and unexpected role that the SNAI and ZEB family of transcription factors play in both normal hematopoiesis and leukemia with a particular focus on the role of ZEB2 in aggressive forms of T-cell acute lymphoblastic leukemia (ETP-ALL) as well as the role of ZEB proteins and SNAI1 in myeloid cell development and AML initiation/progression. Dr. Haigh is particularly interested in understanding how SNAI/ZEB family members are able to corrupt key epigenetic regulators and gene expression programs that drives cancer development and to develop novel drug therapies against these altered epigenetic targets. Since August 2018 Dr. Haigh has taken up a position at the University of Manitoba/CancerCare Manitoba. He has published **83 peer reviewed publications**, many of which have been in top-level journals with an **H-index=37** and more than **6100 citations**. During his career he has amassed external funding in excess of \$6.5 million Can. He has sat on numerous grant review panels in Belgium, Australia and now in Canada and has supervised 9 postdocs, 4 research assistants as well as 13 graduate and 4 undergraduate students during his career.

B. Positions and Honors

Positions:

- **Group Leader- Vascular Cell Biology Unit**
 Department for Molecular Biomedical Research (DMBR), Flanders Interuniversity Institute for Biotechnology (VIB)/Ghent University Ghent, Belgium 19/04/2004-15/07/2013
- **Assistant Professor**
 Department of Biomedical Molecular Biology Ghent University,
 Ghent, Belgium 01/11/2009-01/11/2014

Program Director/Principal Investigator (Haigh, Jody, Jonathan):

- **Associate Professor**
-Australian Center for Blood Diseases (**ACBD**), Faculty of Medicine, Nursing and Biomedical Sciences, Monash University, Melbourne (Primary Appointment), August 15, 2013-August 1, 2018
-Australian Centre for Regenerative Medicine (**ARMI**-Secondary Appointment), September 2015-August 1, 2018
- **Associate Professor (Since August 2018)**
Department of Pharmacology and Therapeutics, University of Manitoba
- **Senior Scientist (since August 2018)**
CancerCare Manitoba

Awards and Fellowships

- **Queen's Graduate Award:**
01/09/1994-28/10/1995
Value=\$5000
- **Vienna Biocentre International PhD Studentship:**
15/11/95-15/12/99
Value=\$20 000/year
- **National Cancer Institute of Canada (NCIC) Postdoctoral Fellowship:**
01/06/2001-31/03/2004
Value=\$40 000 year
- **Tier II Canada Research Chair in Regenerative Medicine***
(Queen's University, Canada) 01/01/2011-01/01/2016
Value=\$700K (\$100K/year salary support + 200K CFI component)
*Position Declined by Applicant due to personal reasons
- **Larkins Fellowship-Monash University**
01/08/2013-01/08/2015
Value=\$630K (\$480K-salary support and consumables, \$150K-Equipment purchase)

C. Selected Peer-reviewed Publications

EMT-TF papers

- **ZEB2 and LMO2 drive immature T-cell lymphoblastic leukemia via distinct oncogenic mechanisms.** Goossens S, Wang J, Tremblay C, De Medts J, T'Sas S, Nguyen T, Saw J, Haigh K, Curtis DJ, Van Vlierberghe P, Bex G, Taghon T, Haigh JJ. *Haematologica* (2019) Jan 24. (IF-7.57)
- **Oncogenic ZEB2 activation drives sensitivity toward KDM1A inhibition in T-cell acute lymphoblastic leukemia.** Goossens S, Peirs S, Van Looche W, Wang J, Takawy M, Matthijssens F, Sonderegger SE, Haigh K, Nguyen T, Vandamme N, Costa M, Carmichael C, Van Nieuwerburgh F, Deforce D, Kleifeld O, Curtis DJ, Bex G, Van Vlierberghe P, Haigh JJ. *Blood* (2017) Feb 23;129(8):981- 990. (IF-16.56)
- **The EMT transcription factor Zeb2 controls adult murine hematopoietic differentiation by regulating cytokine signaling.** Li J*, Riedt T*, Goossens S*, Carrillo García C, Szczepanski S, Brandes M, Pieters T, Dobrosch L, Gütgemann I, Farla N, Radaelli E, Hulpiau P, Mallela N, Fröhlich H, La Starza R, Matteucci C, Chen T, Brossart P, Mecucci C, Huylebroeck D, Haigh JJ, Janzen V. *Blood*. (2017) Jan 26;129(4):460-472. (IF-16.56)
- **ZEB2 drives immature T-cell lymphoblastic leukaemia development via enhanced tumour-initiating potential and IL-7 receptor signalling.** Goossens S, Radaelli E, Blanchet O, Durinck K, Van der Meulen J, Peirs S, Taghon T, Tremblay CS, Costa M, Farhang Ghahremani M, De Medts J, Bartunkova S, Haigh K, Schwab C, Farla N, Pieters T, Matthijssens F, Van Roy N, Best JA, Deswarte K, Bogaert P, Carmichael C, Rickard A, Suryani S,

Bracken LS, Alserihi R, Canté-Barrett K, Haenebalcke L, Clappier E, Rondou P, Slowicka K, Huylebroeck D, Goldrath AW, Janzen V, McCormack MP, Lock RB, Curtis DJ, Harrison C, Berx G, Speleman F, Meijerink JP, Soulier J, Van Vlierbergh P, **Haigh JJ. *Nat Commun.*** (2015) Jan 7; 6:5794. (IF-11.88) (CIT=52)

- ***The EMT regulator Zeb2/Sip1 is essential for murine embryonic hematopoietic stem/progenitor cell differentiation and mobilization.*** Goossens S, Janzen V, Bartunkova S, Yokomizo T, Drogat B, Crisan M, Haigh K, Seuntjens E, Umans L, Riedt T, Bogaert P, Haenebalcke L, Berx G, Dzierzak E, Huylebroeck D, **Haigh JJ. *Blood.*** (2011) May 26;117(21):5620-30. (IF-16.56) (CIT=82)

Other papers from Haigh lab:

- ***p53 promotes VEGF expression and angiogenesis in the absence of an intact p21-Rb pathway.*** Farhang Ghahremani, M.; Goossens, S.; Nittner, D.; Bisteau, X.; Bartunkova, S.; Zwolinska, A.; Hulpiau, P.; Haigh, K.; Haenebalcke, L.; Drogat, B.; Jochemsen, A.; Roger, P. P.; Marine, J. C.; **Haigh, J. J. *Cell Death Differ*** (2013) 20 7 888-97 (IF=8.18) (CIT=71)
- ***The ROSA26-iPSC mouse: a conditional, inducible, and exchangeable resource for studying cellular (De)differentiation.*** Haenebalcke, L.; Goossens, S.; Dierickx, P.; Bartunkova, S.; D'Hont, J.; Haigh, K.; Hochepped, T.; Wirth, D.; Nagy, A.; **Haigh, J. J. *Cell Rep*** (2013) 3 2 335-41 (IF=7.81)
- ***Increased skeletal VEGF enhances beta-catenin activity and results in excessively ossified bones.*** Maes, C.*; Goossens, S.*; Bartunkova, S.*; Drogat, B.; Coenegrachts, L.; Stockmans, I.; Moermans, K.; Nyabi, O.; Haigh, K.; Naessens, M.; Haenebalcke, L.; Tuckermann, J. P.; Tjwa, M.; Carmeliet, P.; Mandic, V.; David, J. P.; Behrens, A.; Nagy, A.; Carmeliet, G.; **Haigh, J. J. *EMBO J*** (2010) 29 2 424-41 (IF=11.22) (CIT=145)
- ***Vegf regulates embryonic erythroid development through Gata1 modulation.*** Drogat, B.; Kalucka, J.; Gutierrez, L.; Hammad, H.; Goossens, S.; Farhang Ghahremani, M.; Bartunkova, S.; Haigh, K.; Deswarte, K.; Nyabi, O.; Naessens, M.; Ferrara, N.; Klingmuller, U.; Lambrecht, B. N.; Nagy, A.; Philipsen, S.; **Haigh, J. *Blood*** (2010) Sep 23;116(12):2141-51 (IF=16.56)
- ***Efficient mouse transgenesis using Gateway-compatible ROSA26 locus targeting vectors and F1 hybrid ES cells.*** Nyabi, O.; Naessens, M.; Haigh, K.; Gembarska, A.; Goossens, S.; Maetens, M.; De Clercq, S.; Drogat, B.; Haenebalcke, L.; Bartunkova, S.; De Vos, I.; De Craene, B.; Karimi, M.; Berx, G.; Nagy, A.; Hilson, P.; Marine, J. C.; **Haigh, J. J. *Nucleic Acids Res*** (2009) 37 7 e55 (IF=11.14) (CIT=97)

Collaborative papers with the Haigh lab:

- ***A knock-in/knock-out mouse model of HSPB8-associated distal hereditary motor neuropathy and myopathy reveals toxic gain-of-function of mutant Hspb8.*** Delphine Bouhy, Manisha Juneja, Istvan Katona, Anne Holmgren, Bob Asselbergh, Vicky De Winter, Tino Hochepped, Steven Goossens, **Jody J. Haigh**, Claude Libert, Chantal Ceuterick-de Groote, Joy Irobi, Joachim Weis, Vincent Timmerman ***Acta Neuropathol*** (2018) Jan;135(1):131-148. (IF=18.17)
- ***Transitional B cells commit to marginal zone B cell fate by Taok3-mediated surface expression of ADAM10.*** Hammad H, Vanderkerken M, Pouliot P, Deswarte K, Toussaint W, Vergote K, Vandersarren L, Janssens S, Ramou I, Savvides SN, **Haigh JJ**, Hendriks R, Kopf M, Craessaerts K, de Strooper B, Kearney JF, Conrad DH, Lambrecht BN ***Nature Immunology*** (2017) Feb 15. 18(3): 313-320 (IF=23.53)
- ***MDM4 is a key therapeutic target in cutaneous melanoma.*** Gembarska, A.; Luciani, F.; Fedele, C.; Russell, E. A.; Dewaele, M.; Villar, S.; Zwolinska, A.; Haupt, S.; de Lange, J.; Yip, D.; Goydos, J.; **Haigh, J. J.**; Haupt, Y.; Larue, L.; Jochemsen, A.; Shi, H.; Moriceau, G.; Lo, R. S.; Ghanem, G.; Shackleton, M.; Bernal, F.; Marine, J. C. ***Nature Medicine*** (2012) 18(8):1239-47 (IF=30.64) (CIT=248)
- ***A vascular niche and a VEGF-Nrp1 loop regulate the initiation and stemness of skin tumours.*** Beck, B.; Driessens, G.; Goossens, S.; Youssef, K. K.; Kuchnio, A.; Caauwe, A.; Sotiropoulou, P. A.; Loges, S.; Lapouge, G.; Candi, A.; Mascré, G.; Drogat, B.; Dekoninck, S.; **Haigh, J. J.**; Carmeliet, P.; Blanpain, C. ***Nature*** (2011) 478 7369 399-403. (IF=43.07). (CIT=364)
- ***Identification of a co-activator that links growth factor signalling to c-Jun/AP-1 activation.*** Davies, C. C.; Chakraborty, A.; Cipriani, F.; Haigh, K.; **Haigh, J. J.**; Behrens, A. ***Nat Cell Biol*** (2010) 12 10 963-72 (IF=17.72)

D. Research Support

National (October 2019-October 2024):

- **CIHR grant: \$990,676.00**
Title: "EMT Transcription factor corruption of epigenetic regulators in Acute Myeloid Leukemia"
Role: Principle Investigator

Local (April 2019-April 2020)

- **CancerCare Manitoba Foundation Pilot Grant Award: \$50,000**
Title: "Creation of Novel Inducible Cas9 models for in vivo Cancer and Cell Differentiation Studies" *Role: Role: Principle Investigator*

In Australia

NHMRC-APP1141081-Role of ZEB2/SNAI1 in epigenetic remodeling and myeloid cell transformation.

Duration:2018-2020 (3 years)

Amount: **\$809,519.50**

NHMRC-APP1104441-Role of ZEB/NuRD interactions in Hematopoiesis and Lymphoid Malignancies.

Duration: 2016-2018 (3 years)

Amount: **\$810,497.00**

Role: Principle Investigator