

CURRICULUM VITAE

Dudley Chung, PhD
Postdoctoral Fellow

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ACADEMIC DEGREES

- 2006-2011 **B.Sc. Microbiology (Major) and Biology (Minor)**
University of Victoria, CANADA
- 2012-2018 **Ph.D. Pathology**
Dalhousie University, CANADA
Supervisor: Graham Dellaire
Project Title: Evaluating the Role of the COP9 Signalosome and
Neddylation during Cytokinesis and in Response to DNA Damage
Research Award: Nova Scotia Graduate Scholarship (2014-2017)

DETAILS OF EMPLOYMENT & ACTIVITIES

- 2020-Present** **Postdoctoral Fellow**
Department of Biochemistry & Molecular Biology, Faculty of Medicine
Dalhousie University, CANADA
Supervisor: John Archibald
- 2019-2020** **Research Associate**
Department of Pathology, Faculty of Medicine
Dalhousie University, CANADA
Supervisor: Graham Dellaire

Research Articles

1. Attwood, K., Salsman, J., **Chung, D.**, Mathavarajah, S., Van Iderstine, C. and Dellaire, G. (2019). PML isoform expression and DNA break location relative to PML nuclear bodies impacts the efficiency of homologous recombination. *Biochemistry and Cell Biology*. doi: 10.1139/bcb-2019-0115.

2. **Chung, D.**, Salsman, J. and Dellaire, G. (2019). Inhibition of neddylation induces mitotic defects and alters MKLP1 accumulation at the midbody during cytokinesis. *Cell Cycle*. 18(10): 1135-1153.
3. Baranes-Bachar K., Levy-Barda, A., Oehler, J., Reid D.A., Soria-Bretones, I., Voss, T.C., **Chung, D.**, Park, Y., Liu, C., Yoon, J-B., Dellaire, G., Misteli, T., Huertas, P., Rothenberg, E., Ramadan, K., Ziv, Y., and Shiloh, Y. (2018). The ubiquitin E3/E4 ligase UBE4A adjusts protein ubiquitylation and accumulation at sites of DNA damage, facilitating double-strand break repair. *Molecular Cell*. 69: 866-878.
4. Salsman, J., Stathakis, A., Parker, E., **Chung, D.**, Anthes, L.E., Koskowich, K.L., Lahsaee, S., Gaston, D., Kukurba, K.R., Smith, K.S., Chute I.C., Léger, D., Frost, L.D., Montgomery, S.B., Lewis, S.M., Eskiw, C. and Dellaire, G. (2017). PML nuclear bodies contribute to the basal expression of the mTOR inhibitor DDIT4. *Scientific Reports*. 7: 45038.
5. Ramdzan, Z.M., Ginja, V., Pinder, J.B., **Chung, D.**, Donovan, C.M., Kaur, S., Leduy, L., Dellaire, G., Ganesan, S., and Nepveu, A. (2017). The DNA repair function of CUX1 contributes to radioresistance. *Oncotarget*. 8(12): 19021-19038.
6. Yuki, K.E., Eva, M.M., Richer, E., **Chung, D.**, Paquet, M., Cellier, M., Canonne-Hergaux, F., Vaulont, S., Vidal, S. and Malo, D. (2013). Suppression of hepcidin expression and iron overload mediate salmonella susceptibility in ankyrin 1 ENU-induced mutant. *PLOS ONE*. 8(2): e55331.

Review Articles

1. **Chung, D.** and Dellaire, G. (2015). The role of the COP9 signalosome and neddylation in DNA damage signaling and repair. *Biomolecules*. 5(4): 2388-2416.

Abstracts, presentations and scientific conferences:

Platform presentations:

1. **Chung, D.** and Dellaire, G. (2019). Genome Editing with CRISPR-Cas9. *Genomics in Medicine – Emerging Technologies and Bioinformatic Challenges*. Halifax, Canada. December 2019.
2. **Chung, D.** (2019). Inhibition of neddylation induces mitotic defects and alters MKLP1 accumulation at the midbody during cytokinesis. *Pathology Research Day*. Halifax, Canada. April 2019.

Abstracts and Poster Presentations:

1. Salsman, J., Attwood, K., **Chung, D.**, Mathavarajah, S., Eskiw, C. and Deliaire, G. (2019). PML Nuclear Bodies as Regulatory Hubs for the Transcription and Repair of Chromosomal Domains. Keystone Symposia – 3D Genome: Gene Regulation and Disease. Banff, Canada. March 2019.
2. **Chung, D.** and Deliaire G. (2018). Evaluating the Role of the COP9 Signalosome and Neddylation during Cytokinesis and in Response to DNA Damage. Beatrice Hunter Cancer Symposium. Halifax, Canada. November 2018.
3. **Chung, D.** and Deliaire, G. (2017). Investigating the role of Neddylation in Cytokinesis. Pathology Research Day. Halifax, Canada. May 2017.
4. **Chung, D.**, Koskovich, K., Pinder, J., Salsman, J., O'Brien, S., McCormick, C. and Deliaire G. (2016). Kaposi's Sarcoma-associated Herpesvirus (KSHV) Protein ORF45 Interacts with Promyelocytic Leukemia Protein. Beatrice Hunter Cancer Symposium. Halifax, Canada. November 2016.
5. **Chung, D.** and Deliaire, G. (2015). Investigating the Biological Role of the COP9 Signalosome Subunit 6 Interaction with the Promyelocytic Leukemia (PML) Protein. Pathology Research Day. Halifax, Canada. May 2015.
6. **Chung, D.** and Deliaire, G. (2014). Does PML Regulate Protein Function through the COP9 Signalosome?. Pathology Research Day. Halifax, Canada. May 2014.

Other Academic Employment

BC Cancer Agency. Vancouver, CANADA

January 2011 – August 2011

Research Award: NSERC Undergraduate Student Research Award (2011)

Investigated the role and regulation of autophagy in cancer cells using *Drosophila* as a model organism. Performed molecular and biochemical analysis of candidate genes by measuring protein expression levels. Optimized protocols to detect autophagy flux using immunofluorescence and autophagy inhibitors.

McGill University. Montreal, CANADA

May 2010 – August 2010

Investigated host immune response to *Salmonella* infections using mouse models. Characterized candidate genes that could be responsible for *Salmonella* susceptibility. Extracted DNA from tissue samples for sequencing and identified the genetic mutation that caused the observed phenotype in susceptible mice.

Public Health Agency of Canada. Winnipeg, CANADA
May 2009 – August 2009

Investigated the post-translational processing of Chapare Virus glycoprotein by the protease SKI-1. Created protease variants with single amino acid mutations by site-directed mutagenesis. Transfected each construct into cells and analyzed viral glycoprotein and protease expression by Western blot.

Agriculture and Agri-Food Canada. Saskatoon, CANADA
May 2008 – December 2008

Evaluated the potential for using local soil microorganisms as a biocontrol agent to prevent clubroot disease affecting canola in Western Canada. Developed and refined protocol used to surface sterilize canola roots. Isolated over 1500 isolates from canola roots and described their colony morphology.

Community and Volunteer Activities

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| 2019/10 | Canadian Environmental Exposures in Cancer (CE2C) Workshop.
Halifax, Canada.
Duties: Event setup, event photographer. |
| 2018/5 | Mother's Day Walk. Breast Cancer Society of Canada.
Halifax, Canada.
Duties: Route marshal. |
| 2013/5 – 2016/5 | Scotiabank Blue Nose Marathon. Halifax, Canada.
Duties: Route marshal, water station attendant, coat check, participant sign-in and information desk. |
| 2012/9 – 2014/9 | Terry Fox Run. Terry Fox Foundation. Halifax, Canada.
Duties: Route marshal. |