

CURRICULUM VITAE

Zahra Jalali

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EDUCATION:

McGill University

PhD, Biochemistry

Montreal, Canada

May 2016

University of Tehran

MSc, Medical Biotechnology

Tehran, Iran

May 2010

University of Tehran

BSc, Biotechnology

Tehran, Iran

May 2007

RESEARCH EXPERIENCE:

McGill University

PhD student, Biochemistry

Montreal, Canada

2011-2016

Functional characterization of the folliculin tumor suppressor associated with inherited BHD cancer-predisposition syndrome

- Genetic, biochemistry and cellular molecular analysis to understand the underlying mechanism of BHD cancer-predisposition syndrome upon loss of the folliculin tumor suppressor using mammalian cells and *C. elegans* model.
- Characterization of the function of folliculin as a negative regulator of stress kinases and autophagy using genetic and biochemistry experiments as well as confocal fluorescence microscopy.

- Protein-protein interaction analysis and in vitro functional assays to characterize folliculin protein complexes in the cell and to understand the molecular function of its protein-protein interactions.

University of Tehran

Tehran, Iran

MSc student, Medical Biotechnology

2008-2010

Characterization of the role of ABC transporters in multidrug resistance in different tumor types.

- Examined the role of ABC transporters in drug efflux and multidrug resistance to Doxorubicin, tamoxifen and mitoxantrone in tumor cells using RNAi, cytotoxicity assays and flow cytometry analysis.

HONORS and AWARDS

Chemical Biology Program Stipend Award, Biochemistry Department, McGill University 2014

Graduate Excellence Fellowship, Biochemistry Department, McGill University 2012-2015

Ranked 8th in Iran's national entrance exam for universities. 2003

PUBLICATIONS:

***co-first Author**

Jalali Z*, Possik E*, Nouët Y, Yan M, Gingras M-C, Schmeisser K, Panaite L, Dupuy F, Kharitidi D, Chotard L, Jones RG, Hall DH, Pause A. Folliculin Regulates Ampk-Dependent Autophagy and Metabolic Stress Survival. *PLOS Genet.* 2014.

Yan M, Gingras MC, Dunlop EA, Nouët Y, Dupuy F, **Jalali Z**, Possik E, Coull BJ, Kharitidi D, Dydensborg AB, Faubert B, Kamps M, Sabourin S, Preston RS, Davies DM, Roughead T, Chotard L, van Steensel MA,

Jones R, Tee AR, Pause A. The tumor suppressor Folliculin regulates AMPK-dependent metabolic transformation. *J Clin Invest*. 2014.

PRESENTED AND PUBLISHED ABSTRACTS IN CONGRESSES:

Jalali Z, Possik E, Nouët Y, Yan M, Gingras M-C, Schmeisser K, Panaite L, Dupuy F, Kharitidi D, Chotard L, Jones RG, Hall DH, Pause A. Folliculin regulates ampk-dependent autophagy and metabolic stress survival. **Terry Fox** Fifth Annual Scientific Meeting. Montreal, QC. 2014.

Jalali Z, Nouët Y, Possik E, Yan M, Gingras M, Panaite L, Dupuy F, Chotard L, Jones RG, Hall DH, Pause A. Folliculin negatively regulates ampk-dependent autophagy and stress survival. Fifth **BHD** Symposium and Second HLRCC Symposium, Paris, France. 2013.

SKILLS

Mutational genotype analysis and PCR

Molecular biology techniques for gene cloning and mutagenesis

Genetic manipulations in human cells and *C. elegans*

RNAi techniques using siRNA transfection and lenti/retrovirus transduction

Isolation of RNA and qRT-PCR analysis

Recombinant protein expression, purification and *in vitro* functional assays

Fluorescence (confocal) microscopy

Co-Immunoprecipitation of protein complexes and pull down assays

Flow cytometry assay

Bio-ID technique to screen for protein-protein interactions

Gene mapping performed in Arabidopsis plants

Cancer genomics databases analysis

Basic computer programming