



Personnel and contact information

Osamah Batiha

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Education

Ph.D in Cell and Developmental Genetics. 2008-2013

Department of biological sciences. University of Windsor, Ontario, Canada.

Graduation date: October 2013.

-Dissertation title: Regulation of the Anaphase Promoting Complex/Cyclosome in Drosophila female meiosis.

-Advisor: Dr. Andrew Swan

M.Sc. in Applied Biology. 2003-2005

Department of applied biology, Jordan University of Science and Technology. Irbid, Jordan.

-Graduation date: January 2006

-Thesis title: "Genetic basis of infertility in Jordanian adult males"

-Advisor: Dr. Ahmed M. Elbetieha

B.Sc. in Biology. 1998-2002

Department of Biology. Yarmouk University Irbid, Jordan.

Scholarships, fellowships and other awards

- 1- Queen Elizabeth II Ontario Graduate Scholarship in Science and Technology (QEII-GSST). Summer 2012, Fall 2012 & Winter 2013
- 2- Windsor prostate cancer Award. April, 2013

- 3- Queen Elizabeth II Ontario Graduate Scholarship in Science and Technology (QEII-GSST). Fall, 2011 & winter, 2012
- 4- University of Windsor doctoral tuition scholarship. 2008 -2012
- 5- Graduate excellence award. Department of Biological Sciences, University of Windsor, April 2012.
- 6- A.R and E.G Ferriss Scholarship. 2012
- 7- Runner up for the best presentation award. Canadian Drosophila Research Conference. St. Catharines. June 2011. The work presented at the conference was recognized by the Windsor Star daily news, which wrote an article entitled "Infertility research creates buzz" on August 3rd, 2011.
- 8- Runner up for the best presentation award in the "three-minute thesis competition". University of Windsor. March 2013.
- 9- Best presentation award, graduate studies scientific day at Jordan University of Science and Technology. May 2005.

Research interest

keywords of research interests

Genetics, infertility, cell cycle regulation, meiosis

I am interested in understanding the cellular and the molecular processes leading to genetic diseases. My main focus is to identify the genetic basis of human infertility. I am using molecular techniques such as PCR and DNA sequencing, in addition to, cytogenetic techniques such as florescent in situ hybridization (FISH) to identify factors that affect sperm and oocyte quality. In addition to that I am using the model system *Drosophila melanogaster* to study the cellular and genetic basis of human diseases.

The current running projects are:

- 1- Study the genotoxicity of heavy metals on Drosophila polytene chromosome
- 2- Study the association between mutations in the CDC20 gene and unexplained female infertility
- 3- Gene expression profiling of cell cycle regulators of human oocyte and female infertility
- 4- The association between DAZL gene and male infertility in Jordanian population
- 5- Study the association between mutations in the FMR1 gene and primary ovarian insufficiency among Jordanian infertile females

Work experience

Assistant professor. February 2014-Now

Department of applied biology, Jordan University of Science and Technology. Irbid, Jordan

Research assistant. 5/2008-7/2013

Dr. Andrew Swan laboratory, University of Windsor, ON, Canada.

Graduate assistant. 9/2008-1/2013

Department of Biological Sciences. University of Windsor, Ontario, Canada.

Teaching molecular genetics and biotechnology laboratories for second and forth year students.

Laboratory Specialist. 8/2005-4/2008.

Al Yamama Company for health and environmental projects, Amman, Jordan. Responsible for laboratory training and technical support for the Magnetic Cell Separation (MACS®) of cells and Biomolecules technology.

Part time lecturer. 2/2006- 6/2006

Department of biotechnology and genetic engineering, Jordan University of Science and Technology, Irbid, Jordan.

Teaching microbial genetics laboratory for third year students.

Teaching Assistant. 2003-2004

Department of applied biology, Jordan University of Science and Technology, Irbid, Jordan.

Teaching introductory laboratory in biology.

Publications

- **1) Batiha O**, Haifawi S, Al-Smadi M, et al.Molecular analysis of CAG repeat length of the androgen receptor gene and Y chromosome microdeletions among Jordanian azoospermic infertile males. Andrologia. 2018; e12979.https://doi.org/10.1111/and.12979
- **2**) Bodoor K, **Batiha O**, Abu-Awad A, Al-Sarihin K, Ziad H, Jarun Y. Identification of a Novel WFS1 Homozygous Nonsense Mutation in Jordanian Children with Wolfram Syndrome. Submitted. Meta gene 2016 Jul 16;9:219-24
- **3**) Guo Z, **Batiha O**, Bourouh M, Fifield E, Swan A. Role of Securin, Separase and Cohesins in female meiosis, and polar body formation in Drosophila. J Cell Sci. 2015. doi: 10.1242/jcs.179358
- **4) Batiha O** and Swan A. Evidence that the Spindle Assembly Checkpoint does not regulate APC-Fzy activity in Drosophila female meiosis. 2011. Genome /National Research Council Canada 55(1): 63-67.
- **5**) **Batiha O**, Al-Ghazo MA, Elbetieha A, Jaradat S. Screening for deletions in the AZF region of Y chromosome in infertile Jordanian males. 2012. Journal of Applied Biological Sciences. 6 (2): 019-022.
- 6) **Batiha O and** Bataineh S. (2016). Genetics by Chris Kaiser, Gerald Fink, Leona Samson, and Michelle Mischke, MIT OPEN COURSE WARE, CC BY NC SA. http://www.alecso.org/open_book_project/. (*translation*)

Conferences participation

Oral presentation

• Batiha O, padmanabhan V, Swan A. Zygotic expression of the meiosisspecific activator of the Anaphase Promoting Complex, Cort, causes sex transformation. Canadian Drosophila Research Conference. St. Catharines, Ontario. June 4-7, 2011.

Poster presentation

- Batiha O, Fifield E and Andrew Swan. A surprising role for the Anaphase Promoting Complex in sex determination. 53rd Annual Drosophila Research Conference. Chicago, IL, March 7- 11, 2012
- Batiha O, Petrie A, Swan A. Regulation of the Anaphase Promoting Complex (APC) in Drosophila female meiosis". 51st Annual Drosophila Research Conference. Washington, DC, April 7- 11, 2010
- Batiha O, Canavati C, Elbetieha A, Alkhatib R. The Effects of various heavy metals on Drosophila melanogaster third Instar Larvae Polytene Chromosomes. The Allied Genetics Conference (TAGC). Orlando, Florida. July 13 - 17, 2016
- Batiha O, Canavati C, Elbetieha A, Alkhatib R, Shaban S, Kofahi A. Study the genotoxicity of various heavy metals using *Drosophila* Polytene Chromosomes. The 25th European Drosophila research conference. London, UK. September 22-25, 2017

Graduate Students Supervision

- 1. Saja Haifawi. Study the association between mutations in the Androgen Receptor gene and male infertility. 2013-2016
- 2. Elham Abdullah. The association between DAZL gene and male infertility in Jordanian population. 2013-2016
- 3. Haya Ziad. Molecular Characterization of WFS1 in Jordanian families with Wolfram Syndrome. 2013-2015. **(Co-advisor)**
- 4. Heidar Al-Akul. Gene expression profiling of cell cycle regulators of human oocyte and female infertility. 2014-2017

Undergraduate project Supervision

- 1. Shireen Sha'ban, 2015
- 2. Ayesha Kofahi, 2015
- 3. Christina Canavati, 2015
- 4. Khadra Omar, 2016
- 5. Sally Abu Laila, 2016
- 6. Ekhlas Rousan, 2016

Courses Taught

Human genetics Molecular genetics Developmental biology Special topics in advanced human

Epigenetics Cytogenetics

Molecular biology General biology

Manuscript Review and Editorial Board

- Journal of assisted reproduction and genetics
- Andrologia
- Journal of cellular biology and toxicology (Editor)
- International Journal of Applied medical and biological Research (Editor)

Committees Membership

- Member in the Genetic society of America, 2010-Now
- Representative of the department of applied biological sciences in the faculty of science and arts council/ JUST. Sep2015-Sep2016
- Member in the committee of student's affairs, faculty of science, JUST, Sep2015-Sep2016
- Member in the seminar committee, department of applied biological sciences, JUST, Sep2016-Now
- Member in the marks review committee, faculty of science, 2016-2017
- Member in the internet committee, department of applied biological sciences, JUST, Sep2017-Now
- Member in the social committee, department of applied biological sciences, JUST, Sep2016-2017
- Member in the committee of accreditation and quality control, department of applied biological sciences, JUST, Sep2017-Now