

CURRICULUM VITAE

Yasmine Fathy Mohamed, PhD.

Personal Data

- **Nationality:** Egyptian
- **Living city:** Vancouver, Canada
- **Current Position:**
 1. Postdoctoral Fellow at the Department of Microbiology and Immunology, Faculty of Science, University of British Columbia, Canada (November 2019-Present).
 2. Lecturer/Assistant Professor at the Department of Microbiology & Immunology, Faculty of Pharmacy, Alexandria University (December 2017-Present).
- **Languages:** Arabic: Mother tongue.
English: Excellent (reading, writing and speaking).
French: Good (reading, writing and Speaking).

Academic Qualifications

- 1- **PhD in Microbiology and Immunology**, School of Medicine, Dentistry and Biomedical Sciences, Queen's University Belfast, Northern Ireland, UK (2016).
Dissertation: Characterization of Essential Glycan Assembly and Transfer Processes in *Burkholderia cenocepacia*.
- 2- **Master's degree of Pharmaceutical sciences in Pharmaceutical Microbiology**, Faculty of Pharmacy, Alexandria University, Egypt (2010).
Dissertation: Microbiological Studies on Colistin Using Pan-Drug Resistant Clinical Bacterial isolates.
- 3- **Bachelor of Pharmaceutical Sciences**, Faculty of Pharmacy, Alexandria University, Egypt (2007).

Teaching Experiences

1. Practical courses of Microbiology and Public Health for undergraduate pharmacy students, Department of Microbiology & Immunology, Faculty of Pharmacy, Alexandria University (2007-2012).
2. Practical courses of General Microbiology and Parasitology for undergraduate clinical pharmacy students, Department of Microbiology & Immunology, Faculty of Pharmacy, Alexandria University (2010-2012).
3. Molecular genetics practical sessions, Department of Biological Sciences, Queen's University Belfast (2013-2015).

4. Physiology practical sessions, Department of Biomedical Sciences, Queen's University Belfast (2014-2015).
5. Supervisor of an undergraduate fourth year honour student research project, Queen's University Belfast (2015).
6. Immunology lectures for undergraduate pharmacy students, Department of Microbiology & Immunology, Faculty of Pharmacy, Alexandria University (2017).

Attendance of conferences and meetings

- 1- Infection and Immunity Translational Research Group Conference, Queens University Belfast, UK (29th January 2016).
- 2- Bacterial Cell Surfaces, Gordon Research Conference, West Dover, Vermont, USA (22nd – 27th June 2014).
- 3- I&I TRG Young Scientist's Symposium, 2014, Queens University Belfast, UK (25th February 2014).
- 4- The CF Microbiology Consortium, 2013, Liverpool, UK (28th November 2013).
- 5- The 20th Annual Conference of the Egyptian Society of Infection Control (ESIC) and the 4th Conference of the Eastern Mediterranean Regional Network for Infection Control "Infection Preventionists: Marathoning Towards Zero", Azur, Alexandria, Egypt (17th-20th October 2011)
- 6- Biovision Alexandria, 2006, New Life Sciences: Changing Lives, Bibliotheca of Alexandria, Egypt (26-29 April 2006).
- 7- FIP 2005, Intercontinental City Stars, Cairo, Egypt (September 2005).

Training Courses and workshops

- 1- **Glycoscience: a complex discipline with a central role in modern biology, biotechnology and medicine**, COST BM 1003 Training School, University of Napoli Federico II, Department of Chemical Sciences, Napoli, Italy (3rd – 5th June 2014).
- 2- **MALDI Training course**: Provided by Bruker Daltonics (Bruker UK Limited) for Autoflex and ProteinScape (11th-13th November 2013 and 5th-6th February 2014).
- 3- **Basic Molecular Biology**, held at the Medical Technology Center for Research and Services, Medical Research Institute, Alexandria University (2-7 February 2008).
- 4- **Recent Advances in Laboratory Medicine**, Egyptian Medical Syndicate (April 2008).
- 5- **Non-Conventional Methods for Optimization in Experimental Studies**, organized by the Science Park, Faculty of Pharmacy, Alexandria University (16 February 2010).
- 6- **Advances in Molecular Biology**, Mubarak City for Scientific Research and Technology Applications (14-16 March 2010).
- 7- **Clinical Practice for pharmacist**, Pharmacists syndicate of Alexandria, Egypt (2006).

- 8- **Trainee Researcher in Pharco Pharmaceutical Company**, Alexandria, Egypt (Summer 2006).

Awards and Scholarships

- 1- Michael Smith Foundation for health Research (MSFHR) research trainee fellowship award (2021).
- 2- Second prize for the best talk in the 2nd year symposium, School of Medicine, Dentistry and Biomedical Sciences, Queen's University Belfast (2015).
- 3- School of Medicine, Dentistry and Biomedical Sciences Travel Award, Queen's University Belfast (2014).
- 4- TRG Travel Award, Queen's University Belfast (2013).
- 5- PhD Studentship for 3 years from Queen's University Belfast (2013)
- 6- Joint scholarship for 1 year from the Mission sector, Ministry of higher education, Egypt (2012).
- 7- Certificate awarded for the best recognized poster in the 20th Annual Conference of the ESIC "Infection Preventionists: Marathonning Towards Zero" (2011).
- 8- Hassan Abdeen Gold medal prize in Analytical Chemistry, Faculty of Pharmacy, Alexandria University (Top student, 2007).
- 9- Certificate of Appreciation for graduation with Distinction Honour degree and being ranked the Second among 1200 classmates, Faculty of Pharmacy, Alexandria University (2007).

Publications

1. Guanbo Wang, Lena Glaser, Nichollas E. Scott, **Yasmine Fathy Mohamed**, Rebecca Ingram, Karine Laroucau, Miguel A. Valvano. A glycoengineered antigen exploiting a conserved protein O-glycosylation pathway in the Burkholderia genus for detection of glanders infections. 2021. Virulence, 12(1): 493– 506.
2. **Yasmine Fathy Mohamed**, Nichollas E Scott, Antonio Molinaro, Carole Creuzenet, Ximena Ortega, Ganjana Lertmemongkolchai, Michael M Tunney, Heather Green, Andrew M Jones, David DeShazer, Bart J Currie, Leonard J Foster, Rebecca Ingram, Cristina De Castro, Miguel A Valvano. 'A general protein O-glycosylation machinery conserved in Burkholderia species improves bacterial fitness and elicits glycan immunogenicity in humans. 2019. Journal of Biological Chemistry, 294(36): 13248 –13268.

3. **Y. Fathy Mohamed**, Mohamad Hamad, Ximena p. Ortega and M. A. Valvano. 'The LpxL acyltransferase is required for normal growth and penta-acylation of lipid A in *Burkholderia cenocepacia*'. 2017. *Molecular Microbiology* 104 (1), 144-162.
4. Ruth Dennehy; Maria Romano; Alessia Ruggiero; **Y. Fathy Mohamed**; Simon L. Dignam; Cristóbal Mujica Troncoso; Máire Callaghan; Miguel A. Valvano; Rita Berisio; Siobhán McClean. 'The *Burkholderia cenocepacia* peptidoglycan-associated lipoprotein is involved in epithelial cell attachment and elicitation of inflammation'. 2016. *Cellular Microbiology* 19 (5), e12691.
5. **Y. Fathy Mohamed**, Hamida M. Abou-Shleib, Amal M. Khalil, Nadia M. El-Guink and Moustafa A. El-Nakeeb. 'Membrane permeabilization of colistin toward pan-drug resistant Gram-negative isolates'. 2016. *Braz J Microbiol* 47 (2), 381-388.
6. F. Tavares-Carreón, **Y. Fathy Mohamed**, A. Andrade, and M. A. Valvano. 'Arnt Proteins That Catalyze the Glycosylation of Lipopolysaccharide Share Common Features with Bacterial N-Oligosaccharyltransferases'. 2015. *Glycobiology* 26 (3), 286-300
7. M. Khodai-Kalaki, A. Andrade, **Y. Fathy Mohamed**, and M. A. Valvano. '*Burkholderia cenocepacia* Lipopolysaccharide Modification and Flagellin Glycosylation Affect Virulence but Not Innate Immune Recognition in Plants'. 2015. *MBio* 6 (3), e00679-15.
8. **Y. Fathy Mohamed**, and M. A. Valvano. 'A *Burkholderia cenocepacia* MurJ (MviN) Homolog Is Essential for Cell Wall Peptidoglycan Synthesis and Bacterial Viability'. 2014. *Glycobiology* 24 (6), 564-576.
9. Moustafa A. El-Nakeeb, Hamida M. Abou-Shleib, Amal M. Khalil, Nadia M. El-Guink and **Y. Fathy Mohamed**. Effect of Colistin On The *in-vitro* Post-Antibiotic Activity and Biofilm Formation using pan-drug-resistant clinical Gram-negative isolates. *N. Egypt. J. Microbiol.* 2010.

Abstracts-Poster presentations

1. **Yamine Fathy Mohamed**, Nichollas E. Scott, Antonio Molinaro, Carole Creuzenet, Rebecca Ingram, Cristina De Castro and Miguel A. Valvano. Elucidating a conserved protein glycosylation pathway in the *Burkholderia* genus. 2018. International *Burkholderia cepacia* work group.
2. **Yasmine Fathy Mohamed**, Nichollas Scott and Miguel A. Valvano. 2015. Elucidation of the general glycosylation pathway of *Burkholderia cenocepacia*. Fraser symposium, Belfast.
3. **Yasmine Fathy Mohamed**, Laura Alvarez, Felipe Cava and Miguel A. Valvano. 2014. A putative glycosyltransferase is required for the completion of cell septation

in *Burkholderia cenocepacia*. Bacterial Cell Surfaces Gordon Research Conference, Mount Snow Resort West Dover, VT.

4. **Yasmine Fathy Mohamed** and Miguel A. Valvano. 2014. Identification of a MurJ homolog in *Burkholdria cenocepacia* that is essential for peptidoglycan synthesis and bacterial viability. Infection & Immunity TRG Young Scientist's Symposium, Queens University Belfast, UK.
5. **Yasmine Fathy Mohamed** and Miguel A. Valvano. 2013. Identification of a MurJ homolog in *Burkholdria cenocepacia* that is essential for peptidoglycan synthesis and bacterial viability. The CF Microbiology Consortium, Liverpool, UK.
6. **Yasmine Fathy Mohamed**, Hamida M. Abou-Shleib, Amal M. Khalil, Nadia M. El-Guink and Moustafa A. El-Nakeeb. 2011. Development and Detection of Colistin Heteroresistant populations of Pan-drug Resistant Gram-Negative Clinical Isolates. The 20th Annual Conference of the Egyptian Society of Infection Control (ESIC) and the 4th Conference of the Eastern Mediterranean Regional Network for Infection Control "Infection Preventionists: Marathoning Towards Zero", Alexandria, Egypt.