

**Curriculum Vitae**  
**Dr. Mohamed Samir Mohamed Gadelkarim Youssef**



**CONTACT DATA**

Name : Mohamed Samir Mohamed Gadelkarim Youssef  
Current Address : University crescent, Winnipeg, Manitoba, Canada.  
Home Address : Elemam Albosary Street, Tanta, Gharbeya, Egypt.  
Business Address : 1<sup>st</sup> Elgeish street, Botany Department, Faculty of Science, Kafrelsheikh University, 33516, Kafrelsheikh, Egypt.  
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**PERSONAL DATA**

Sex : Male  
Date of Birth : 15-05-1978  
Place of Birth : Gharbiya, Egypt  
Citizenship : Egyptian  
Marital Status : Married with two children

**EMPLOYMENT HISTORY**

2019 – till now : **Visiting professor at the University of Manitoba, Canada.**  
2019 – till now : **Associate professor of Molecular Genetics** at the Botany Department, Faculty of Science, Kafrelsheikh University, Egypt.  
2016 - till now : **Director of Quality Assurance Unit** in the Faculty of Science Kafrelsheikh University, Egypt.  
2013 – 2019 : **Assistant professor of Genetics** at the Botany Department, Faculty of Science, Kafrelsheikh University, Egypt.  
2011 – 2013 : Assigned to teach Genetic and Taxonomy of Flowering Plants courses at the Botany Department, Faculty of Science, Kafrelsheikh University, Egypt.  
2010 – 2011 : Assigned to supervise the practical Botany and teaching Genetic courses in the Botany Department, Faculty of Science, Damanhour University, Egypt.  
2005- 2008 : Ph.D. fellow in Botany Department, Faculty of Science, Tanta University. Egypt. And teaching practical botany to undergraduate students'.  
2000-2004 : Assistant researcher in Biological and Geological Sciences Department, Faculty of Education, Kafrelsheikh University. Egypt.

## **EDUCATION DATA**

### **A- Academic History:**

- 2010 : Ph.D. Degree in Botany (Genetics) from Tanta University. Egypt.  
2004 : M.Sc. Degree in Botany (Genetics) from Tanta University. Egypt.  
1999 : B.Sc. Degree in Botany, Botany Department, Faculty of Science Tanta University, Egypt.

## **Professional Experience**

### **1- Ph.D. program (2005-2010):**

**Thesis title: Studies on propagation and somatic hybridization of *Citrullus L.***

### **2- M.Sc. Program (2000-2004):**

**Thesis title: Cytological and genetical variations among *Ipomoea carnea* Jacq. population in Nile Delta region.**

## **Vocational/Technical Training**

1. Collecting botanical samples from their natural habitats and making herbarium sheets.
2. Extracting and Separating seed storage proteins, seedling proteins and isozymes using polyacrylamide gel electrophoresis (PAGE) technique, scoring data, data analysis, explanation and discussion.
3. Extraction of DNA from young leaves and seeds of plants, separating DNA using Agarose gel electrophoresis technique and amplification of DNA in vitro using polymerase chain reaction technique.
4. Evaluating the genetic diversity using biochemical and molecular markers as Isozymes, Seed storage protein, RAPD & ISSR-PCR techniques.
5. RNA Extraction Using Triazole or RNA extraction kits, separating RNA using Agarose gel electrophoresis technique.
6. Measuring quantity and purity of nucleic acids using Nanodrop spectrophotometer.
7. Gene expression studies using Quantitative Real Time PCR.
8. Constructing RNA libraries from laser-micro dissected tissues using laser microdissection microscope.
9. Preparing cytological slides, examining it under a computer aided microscope with digital camera, chromosome counting, photographic printing, and karyotyping.
10. Studying the cytotoxic and genotoxic effects of plant extracts as well as chemicals, Nano-materials and ecological pollutants using Mitotic index, chromosomal aberration and micronuclei tests.
11. Photosynthetic pigment estimation.
12. Measuring the photosynthetic rate, stomatal conductivity, internal CO<sub>2</sub> level, transpiration rate and water use efficiency using a gas exchange infrared gas analyzer (IRGA; LI-6400, LI-COR, Inc., Lincoln, NE, USA).
13. ROS localization on leaves using nitroblue tetrazolium (NBT) and diaminobenzidine (DAB) to stain O<sup>-</sup> and H<sub>2</sub>O<sub>2</sub>, respectively.
14. Plant tissue culture, protoplast isolation & fusion.

## **B- Current Specialization**

Botany, Molecular genetics, Taxonomy of flowering plants, Biodiversity, Molecular biology, Population genetics, Plant Tissue culture & Biotechnology.

## **D- Professional and Organization Memberships**

1. Egyptian Botanical Society (EBS).
2. Egyptian Society for Experimental Biology (ESEB).

## **TEACHING EXPERIENCE**

- \* Teaching lectures of Population Genetics, Molecular Phylogeny, Plant tissue culture and Biotechnology courses for Postgraduate students in Botany Department, Faculty of Science, Kafrelsheikh University, Egypt.
- \* Teaching lectures and practices of Genetics, Taxonomy of Flowering Plants, Molecular taxonomy and ecosystem, Plant Ecology and Plant anatomy courses for undergraduate B. Sc, B. Sc - Edu. And Pharmacy Students in Botany Department, Faculty of Science, Kafrelsheikh University, Egypt.
- \* **Computer skills:** Successfully passed all modules required for the granting of the International Computer Driving License (**ICDL**) version 4.0.
- \* **Language skills**     **2014: IELTS;** International English Language Testing System- Band Score **6.5**

## **PARTICIPATION IN CONFERENCES**

- 1- The 8<sup>th</sup> International Conference “Plant and Microbial Biotechnology”. 3-4 October 2018. Kafrelsheikh University, Egypt.
- 2- Modern Applications in Biological Sciences, 23 April 2018. Academy of Scientific Research & Technology, Cairo, Egypt.
- 3- JSPS-AvH Alumni Joint Conference under the theme “Science & Science Management for Sustainable Development”. 24-26. October 2017. Cairo – Egypt.
- 4- The 7<sup>th</sup> International Conference “Plant and Microbial Biotechnology and their role in the development of the Society”. 19-20 April 2017. Tanta University, Egypt.
- 5- 1<sup>st</sup> Castle Conference of Advanced Sciences. 5<sup>st</sup> March 2017. Kafrelsheikh, Egypt.
- 6- The 1<sup>st</sup> International Conference on “Biodiversity and Sustainable Development”. 15-16 October 2016. Helwan University, Egypt.
- 7- The 7<sup>th</sup> Annual International Conference of The Egyptian Society of the Experimental Biology. 2-6 April 2011. Egypt.
- 8- The Sixth International Conference on Biological Sciences. 10-11 November 2010. Egypt.
- 9- The 1<sup>st</sup> Scientific Conference of The Egyptian Society of the Experimental Biology. 26 November 2005. Egypt.

## **PARTICIPATION IN WORKSHOPS**

- 1- **Metagenomics workshop.** (the department of microbiology and Immunology and the center for genome and microbiome research at the Faculty of Pharmacy- Cairo University). During the period 19- 20 December /2018.
- 2- **Education Programs and Courses Specifications and Evaluation of Learning Outcomes for H.E. Institutes.** (By the National Authority for Quality Assurance and Accreditation of Education, Egypt). During the period 4/2- 6/2/2017.
- 3- **The Modern Knowledge Cycle.** Conducted on 5<sup>st</sup> March 2017 by ELSEVIER at Kafrelsheikh University, Egypt.
- 4- **Self-Evaluation for Higher Education Institutes.** (National Authority for Quality Assurance and Accreditation of Education. During the period 01/03-03/03/2016).
- 5- **Prospects of Nano Crystals Basics and Application.** (Faculty of Science- Kafrelsheikh University. Egypt. 25-24 November 2014).
- 6- **Practical Applications of Electrophoresis Techniques in Different Biological Fields.** (Faculty of Science- Kafrelsheikh University. Egypt. 15-17 September 2014).
- 7- **University Management.** (International Faculty and Leadership Development Center. 10-11 August 2014).
- 8- **Developing a personality of leadership.** (DAAD Kairo Akademie, at the Premises of DAAD Cairo, Egypt. On 4 December 2013).
- 9- **Research Management.** (DAAD Kairo Akademie, at the Premises of DAAD Cairo, Egypt. On 12 November 2013).
- 10- **Proposal Writing Post Docs.** (DAAD Kairo Akademie, at the Premises of DAAD Cairo, Egypt. On 10 November 2013).
- 11- **Introduction to Bioinformatics, Programming & Molecular biology.** (Nematology and Biotechnology Unit, Faculty of Agriculture, Fayoum University, in cooperation with the Egyptian center of Bioinformatics and Genomics (ECBAG), Zagazig University. Egypt. 6-8 November 2013).
- 12- **Practical Application of Real Time PCR in Different Fields.** (Faculty of Veterinarian medicine - Kafrelsheikh University. Egypt. 15-17 June 2013).
- 13- **DNA Isolation and RAPD PCR Protocols.** (Faculty of Science- Tanta University. Egypt. 19-21 July 2011).
- 14- **Multivariate Analysis and its Biological Applications.** (Faculty of Science- Tanta University. Egypt. 11 November 2010).

## **PARTICIPATION IN ONLINE COURSES AND WEBINARS**

- 1- **Research Writing in the Sciences, writing a Grant Proposal and Communicating Research Outside Academia.** 4 September to 29 October 2018 (8 weeks). Course moderator: Andy Nobes, Programme Coordinator, INASP. INASP is a registered UK charity No.1106349. Website: [www.inasp.info](http://www.inasp.info)
- 2- **Research paper rejection: How to deal with?** Conducted on 8<sup>th</sup> April 2017 by Reseapro Scientific Services Pvt.Ltd.
- 3- **Plagiarism: what is and how to avoid it?** Conducted on 1<sup>st</sup> April 2017 by Reseapro Scientific Services Pvt.Ltd.

**4- Rejection of Manuscript: Its possible reasons and solutions.** Conducted on 28<sup>th</sup> January 2017 by Reseapro Scientific Services Pvt.Ltd.

**5- How to write a research proposal.** Conducted on 21<sup>th</sup> January 2017 by Reseapro Scientific Services Pvt.Ltd.

**6- How to write a research paper.** Conducted on 14<sup>th</sup> January 2017 by Reseapro Scientific Services Pvt.Ltd.

#### **projects:**

**Executive Director of Support and Development of Educational Effectiveness in Higher Education institutions Project** in faculty of Science, Kafrelsheikh University, Egypt 2016-2018.

#### **Grants:**

Postdoc Fellow for 6 months in University of Manitoba · Department of Plant Science Canada · Winnipeg (9<sup>th</sup> of March 2015- 8<sup>th</sup> of September 2015).

#### **Awards and certificates:**

- 1- Award of Excellence in International Scientific Publication 2019. Awarding institution is Kafrelsheikh University.
- 2- Award of Excellence in International Scientific Publication 2017. Awarding institution is Kafrelsheikh University.
- 3- Award of Excellence in International Scientific Publication 2016. Awarding institution is Kafrelsheikh University.
- 4- Certificate of PCT Distance Learning Course; INTRODUCTION TO THE PATENT COOPERATION TREATY. 13<sup>th</sup> December 2016. Awarding institution is World Intellectual Property Organization (WIPO).

#### **LIST OF PUBLICATIONS**

- 1- **Youssef M. S.**; Mira M.M.; Millar J.L.; Becker M.G.; Belmonte M.F.; Hill R.D.; Stasolla C. (2019). Spatial identification of transcripts and biological processes in laser micro-dissected sub-regions of waterlogged corn roots with altered expression of phytoalbumin. *Plant Physiology and Biochemistry*. 139: 350–365. <https://doi.org/10.1016/j.plaphy.2019.03.036> **IF: 3.404**
- 2- Eid E.M., Shaltout K. H.; Moghanm F.S.; **Youssef M.S.**; El-Mohsnawy E.; Haroun S.A (2019). Bioaccumulation and translocation of nine heavy metals by *Eichhornia crassipes* in Nile Delta, Egypt: perspectives for phytoremediation. *International Journal of Phytoremediation*. <https://doi.org/10.1080/15226514.2019.1566885> **IF: 2.237**
- 3- **Youssef M.S.**; Elamawi R.M. (2018). Evaluation of Phytotoxicity, Cytotoxicity and Genotoxicity of ZnO nanoparticles in *Vicia faba*. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-018-3250-1> **IF: 2.914**
- 4- Khatab, I.A.; **Youssef M.S.** (2018). Micropropagation and Assessment of Genetic Stability of Musa sp. cv. Williams using RAPD and SRAP Markers. *Egyptian Journal of Botany*. 53(3): 371-380. DOI: 10.21608/ejbo.2018.3199.1161
- 5- Saad-Allah, KM, **Youssef, M.S.** (2018). Phytochemical and genetic characterization of five quinoa (*Chenopodium quinoa* Wild.) genotypes introduced to Egypt. *Physiology and Molecular Biology of Plants*. 24(4), 617-629. **IF: 1.539**

- 6- Bakr EA, Al-Hefnawy GB, Awad MK, Abd-Elatty HH, **Youssef MS**, (2018). New Ni(II), Pd(II) and Pt(II) complexes coordinated to azo pyrazolone ligand with a potent anti-tumor activity: Synthesis, characterization, DFT and DNA cleavage studies. *Applied Organometallic Chemistry*.32(2), e4104. DOI: 10.1002/aoc.4104 **IF: 3.58**
- 7- **Youssef, M. S.**; Haroun A. S. and El-Shanshoury R.A. (2017). *Studies on micropropagation and somatic hybridization of Citrullus L.* Germany: Noor publishing, 2017. Web. 23 Jan. 2017. <<https://www.morebooks.de/store/gb/book/studies-on-micropropagation-and-somatic-hybridization-of-citrullus-l/isbn/978-3-330-80374-9>>.
- 8- **Youssef M. S.**; Mira M.M.; Renault S.; Hill R.D.; Stasolla C. (2016). Phytoglobin expression influences soil flooding response of corn plants. *Ann. Bot.* 118: 919-931. doi: 10.1093/aob/mcw146. **IF: 4.041**
- 9- Eid E.M.; **Youssef M. S.G.**; Shaltout K. H. (2016). Population characteristics of giant reed (*Arundo donax* L.) in cultivated and naturalized habitats. *Aquatic Botany* 129: 1–8. <http://dx.doi.org/10.1016/j.aquabot.2015.11.001>. **IF: 1.78**
- 10- El-Kholy A.S.; **Youssef M. S.**; Eid E.M. (2015). Genetic Diversity of *Lemna gibba* L. & *L. minor* L. Populations in Nile Delta Based on Biochemical and ISSR Markers. *Egypt. J. Exp. Biol. (Bot.)*, 11(1): 11 – 19.
- 11- Haroun, S.A.; **Gad El-Karim, M. S.**; Hamoud, M. A.; El-Shanshoury A. R.; Al-Sodany, Y. M. (2011): Impact of Benzyladine and naphthalene acetic acid on molecular changes during shoot organogenesis of *Citrullus colocynthis* (L). The 7<sup>th</sup> Annual International Conference of The Egyptian Society of the Experimental Biology. Egypt (2-6 April 2011).
- 12- Hamoud, M. A.; El-Shanshoury, A. R.; Al-Sodany, Y. M.; **Gad El-Karim, M. S.** (2005): Genetic diversity among *Ipomoea carnea* Jacq. populations from different habitat types in Nile-Delta region of Egypt. *Egypt. J. EXP. Biol. (Bot.)*, 1: 1 – 10.