Marmar A. El Siddig Mohammed

Assistant Professor of Plant Molecular Biology & Biotechnology

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Personal Data:

First name:	Marmar
Family name:	El Siddig
Nationality:	Sudanese
Gender:	Female
Date of Birth:	31/12/1975
Place of Birth:	Khartoum
Marital Status:	Single
Profession:	Botanist (Microbiology & Plant Biotechnology)
Language:	Arabic and English.

Academic qualifications:

1 Postdoctoral Research (Molecular Markers in Wheat). Agro. & Hort. Dept., University of Nebraska-Lincoln, USA, Aug. 2011- July 2012.

2 Ph.D. (Molecular Biology). Botany Dept., Faculty of Science, University of Khartoum. Ph.D. Study entitled: Molecular Aspects of *Agrobacterium*-Host Interaction and Production of Transgenic Tomato Plants Expressing Defensin Gene. 2009.

3 M.Sc. in Science (Botany). Botany Dept., Faculty of Science, University of Khartoum- 2004.

4 B.Sc. in Botany (Honours), First Class (with university prize), Botany Dept., Faculty of Science, University of Khartoum- 2000.

Other qualifications:

1. Training course in Educational preparation (92 hrs. theoretical study + 20 hrs. micro-teaching), Staff development center, University of Khartoum, 30th Aug. – 3rd Oct. 2004.

2. Training course in Molecular Biology, Level I (3rd March-26th May, 2003) & II (28th Sep.-15th Dec., 2003), National Health Laboratory, Ministry of Health, Sudan.

3. Training course in the Principles and applications of laboratories' apparatus (FFAAS, HPLC, IRS, GC), University of Khartoum, Sudan, 11-16th Nov. 2006.

4. Computer skills: operation, word, excels, SPSS, Photoshop, network.

5. Training course in Plant Biotechnology (*Agrobacterium*-mediated transformation, Plant Tissue Culture & DNA molecular markers), National Research Centre, Cairo, Egypt, Nov. 2007- Jun. 2008.

6. Training course in Plant Transformation and GMOs Detection, Agriculture and Genetic Engineering Research Institute (AGERI), Cairo, Egypt, May-June 2008.

7. An intensive training course in English Language, University of Khartoum, English Language Dept., April – May, 2010.

8. Advanced Communication English Language course, Cambridge International Centre (Sudan), Aug.-Sep. 2010.

9. Training course in Agricultural Biotechnology, Yangzhou University , Yangzhou, China, 15 Nov. – 15 Dec. 2010.

Prizes, Scholarships & Grants Awarded:

1. University of Khartoum prize for best student at 5th level, 2000.

2. Minster of Higher Education and Sudan Institute for Natural and Applied Sciences prize for best students in natural sciences, 2000.

3. Ministry of Higher Education and Scientific Research grants for research project (Molecular Aspects of *Agrobacterium*-Host Interaction and Transformation), 2005.
4. In-Country-and In-Region-DAAD Scholarship for Postgraduate Study, 2006-2009.

5. University of Khartoum grant for research project (*In vitro Agrobacterium*-mediated transformation and Regeneration of Drought Tolerant Sunflower Plants), 2009.

6. Ministry of Higher Education and Scientific Research grants for research project (Application of Molecular Markers for the Estimation of Genetic Diversity in *Cymopsis tetragonoloba* and its Wild relative *C. senegalensis*), 2010.

7. University of Khartoum grant for the research project (A Biotechnological Approach Towards Selection and Development of Heat and Drought Wheat Cultivars in Sudan), 2010.

8. Islamic Development Bank (IDB) Merit Scholarship for Post-doctoral Research, Sep. 2010.

9. Ministry of Higher Education and Scientific Research grant for the research project "A Biotechnological Approach Towards Selection and Development of Drought Tolerant Sorghum in Sudan", 2011.

10. Ministry of Higher Education and Scientific Research grant for the research project "*Agrobacterium*-mediated transformation and Regeneration of Sudanese cotton (*Gossypium hirsutum* L.) using *Bt* genes for enhanced insect resistance", 2011 (Principal Investigator).

11. Ministry of Higher Education and Scientific Research grant for the research project "Detection and molecular analysis of potyviruses associated with some important vegetable crops in Sudan", 2011.

Work experience:

1. Full time Assistant professor – Botany Dept., Faculty of Science, University of Khartoum, Aug. 2009- to date.
2. Full time Lecturer – Botany Dept., Faculty of Science, University of Khartoum, Feb. 2005- Aug. 2009.
3. Full time teaching assistant – Botany Dept., Faculty of Science, University of Khartoum, May 2004- Feb. 2005.
4. Full time teaching assistant – University of Medical Science and Technology. (2000-2004).
5. Full time Lecturer – University of Medical Science and Technology. (Aug. 2004-July 2009).
6. Part time teaching assistant – Collage of Technological Sciences. (2004-2005)
7. Part time teaching assistant – Botany Dept., Faculty of Science, University of Khartoum. (1998-2004).

Teaching experience:

Courses taught to undergraduates at Faculty of Science, University of Khartoum:

- Genetic engineering - 5th year honours students.
- Bacteriology – 4th year honours students.
- Molecular Genetics - 4th year honours students.
- Virology - 4th year honours students.
- Introduction to Microbiology – Preliminary year.
- General Botany – Preliminary year.
- Cell Biology – Preliminary year, Faculties of Medicine, Dentistry & Pharmacy, University of Medical Sciences & Technology.
- Pharmacognostical Botany - Preliminary year, Faculty of Pharmacy, University of Medical Sciences & Technology.

Conferences, Workshops & Summer schools:

1. 7th Conference in Biotechnology, National Center for Research, Sudan, 15-17 Dec. 2005.
2. ICGEB Workshop: Principles of Biosafety Research for the Release of Genetically Engineered Crops. National Center for Research, Commission for Biotechnology and Genetic Engineering, Sudan, 4-9 Feb. 2007.
3. FEBS, IUBMB, ICGEB, UNESCO & EMBO Advanced Summer School "Molecular and Cellular Bases of Infection". Cape Town, South Africa, 1-9 March 2008.
4. UNCTAD Introductory course on "Biosafety and GMO Detection", Agricultural and Genetic Engineering Research Institute, Egypt, 9-20 Nov. 2008.
5. IPBO-UGent Summer course on "Modern Breeding Techniques for Improvement of Leguminous Plants". University of Gent, Gent, Belgium, 18-28 Aug. 2009.
6. 3rd International Conference of Genetic Engineering & Biotechnology Division: Biotechnology for Better Life, 3-5 Nov. 2009, NRC, Cairo, Egypt.
7. 1st International Conference of University of Khartoum, Graduate College, March 2010, Khartoum, Sudan.
8. ICGEB-KISR Workshop on "Introduction to Risk Analysis of GMOs", Kuwait Institute for Scientific Research, Safat, Kuwait State, 3-7 Oct. 2010.
9. Workshop on "Writing Scientific Papers and EndNote Reference management Program, Africa City of Technology, 11-14 April 2011, Khartoum, Sudan.
10. 1st Annual Symposium: Arab-American Frontiers in Science, Medicine and Engineering, Kuwait Institute for Scientific Research (KISR), Kuwait State, 17-20 Oct. 2011.
11. Plant Breeding and Genetics Symposium, University of Nebraska-Lincoln, USA, 3 April, 2012.

Publications:

Book Chapters:

1. Adil A. El Hussein, Halima S. Mohy-Eldin, Mayha M. M. Nor Elmadiena and **Marmar A. El Siddig** (2011). Prevalence, Detection and Antimicrobial Resistance Pattern of *Salmonella* in Sudan. Book Chapter**,** "Salmonella / Book 2", ISBN 979-953-307-690-3. In Press.

Papers in International Journals:

1. **El Siddig, M.A.**, El Hussein, A.A., Siddig, M.A., Elballa, M.M. and Saker, M.M. (2009). *Agrobacterium*-mediated Transformation and in vitro Regeneration of of Tomato (*Lycopersicon esculentum* Mill.) Plants cv. CastleRock. *Journal of Genetic Engineering and Biotechnology*, **7 (1):** 11-17.

2. A. A. El Hussein, S. A. Tawfig, S. G. Mohammed, **M. A. El Siddig** and M. A. M. Siddig (2009). Citric acid production from kenana cane molasses by *Aspergillus niger* in submerged fermentation. *Journal of Genetic Engineering and Biotechnology*, **7 (2):** 51-57.

3. **El Siddig, M.A.**, El Hussein, A.A. and Saker, M.M. (2011). *Agrobacterium*-Mediated Transformation of Tomato Plants Expressing Defensin Gene. *International Journal of Agricultural Research* **(6):** 323-334.

4. Afrah T. Mohamed, Adil A. El Hussein, **Marmar A. El Siddig**, Awad G. Osman (2011). Degradation of Oxyfluorfen Herbicide by Soil Microorganisms. *Biotechnology* 10 (3): 274-279.

5. Adil A. El Hussein, Afrah T. Mohamed, **Marmar A. El siddig**, Ashraf M.Sherif, Awad G. Osman (2012). Effects of Oxyfluorfen Herbicide on Microorganisms in Loam and Silt Loam Soils. *Research Journal of Environmental Science*. Published online (DOI: 10.3923/rjes.2012).

Papers in International Conferences:

1. **El Siddig, M.A.,** El Hussein, A.A., Siddig, M.A., Elballa, M.M. and Saker, M.M. (2010). *Agrobacterium*-Mediated Transformation of Tomato Plants Expressing Defensin Gene. Proceeding of the 1st Conference of University of Khartoum, Graduate College.

2. Adil A. El Hussein, Mayha M. M. Nor Elmadiena, **Marmar A. El Siddig**, Halima S. M. Mohamed and Hind E. Fadoul (2012). Antimicrobial Resistance Patterns and Plasmid Profile Analysis of Salmonellae Isolated in Sudan. Accepted in the 3rd Conference of University of Khartoum, Graduate College.

Posters:

1. **El Siddig, M.A**. and El Hussein, A.A. (2005). Compatibility Pattern between Ten *Agrobacterium tumefaciens* Isolates and Some Sunflower Genotypes. Proceeding of the 7th Conference in Biotechnology, National Center for Research, Sudan.

2. **El Siddig, M.A.** and El Hussein, A.A. (2010). *Agrobacterium*-Host Interaction. Proceeding of the 1st Conference of University of Khartoum, Graduate College.

3. Ibrahim, E.A., Abdalla, A.H., **El Siddig, M. A**. and Saker, M.M. (2010). Genetic Diversity in Sesame (*Sesamum indicum*) Germplasm Accessions Detected by Agro-morphological Characters and RAPD Markers. Proceeding of the 1st Conference of University of Khartoum, Graduate College.

4. **Marmar A. El Siddig**, Hind E. Fadoul and Adil A. El Hussein (2011). Evaluation of Genetic Diversity and Drought Tolerance in Sudanese Wheat (*Triticum aestivum* L.) Cultivars Using RAPD Markers. 1st Annual Symposium: Arab-American Frontiers in Science, Medicine and Engineering, Kuwait Institute for Scientific Research (KISR), Kuwait State.

5. El Togha E. Abdel Rahman, **Marmar A. El Siddig** and Adil A. El Hussein (2012).

Detection of Tumourigenicity in Agrobacteria Using Pathogenicity PCR Primers. Accepted in the 3rd Conference of University of Khartoum, Graduate College.

6. Hind E. Fadoul, **Marmar A. Elsiddig** and Adil A. Elhussein (2012). Evaluation of genetic diversity in Sudanese wheat (*triticum aestivum L.*) cultivars using RAPD markers. Accepted in the 3rd Conference of University of Khartoum, Graduate College.

7. Heyam S. Mohammed, Adil A. Elhussein, **Marmar A. Elsiddig** and Nebras H. Ahmed (2012). Detection and molecular analysis of potyviruses associated with onion (*Allium cepa*) and garlic (*Allium sativum*) crops in Sudan. Accepted in the 3rd Conference of University of Khartoum, Graduate College.

8. Bader Eldeen A. Eltayeb, Adil A. El Hussein**, Marmar A. El Siddig** and Hind E. Fadoul (2012). An efficient protocol for wheat (*triticum aestivum L.*) regeneration. Accepted in the 3rd Conference of University of Khartoum, Graduate College.

Memberships:

1. American Society of Agronomy (ASA), 2012.
2. Crop Science Society of America (CSSA), 2012.
3. Soil Science Society of America (SSSA), 2012.
3. International Association of Plant Biotechnology (IAPB), 2012.
4. International Society for Biosafety Research (ISBR), 2010.
5. African Crop Science Society (ACSS), 2009.

References:

1. Dr. Adil A. El Hussein, Dept. of Botany, Faculty of Science, University of Khartoum, Sudan. Email: adilelhussein@hotmail.com. Tel. +249-9-12232845.

2. Prof. Stephen Baenziger, Dept. of Agro. & Hort., University of Nebraska-Lincoln, NE, USA. Email: pbaenziger1@unl.edu.

3. Dr. Ismael Dweikat, Dept. of Agro. & Hort., University of Nebraska-Lincoln, NE, USA. Email: idweikat@unlnotes.unl.edu.