



DR: Abdelaal Shamseldin

Professor

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| PERSONAL INFORMATION | Full Name: Abdelaal Ali Yousef Shamseldin Affiliations: GEBRI institute Address: New Borg El-Arab city, Alex., Egypt Mobile No.: 01125431718 E-mail: yabdelall@yahoo.com Important links: |
| EDUCATION | Ph. D. 2005 Faculty of Science, Marburg University, Germany. M.Sc 1997 Faculty of Agriculture, Cairo University Egypt B. Sc 1990 Faculty of Agriculture, El Menoufia university. |
| ACTIVITIES | <ul style="list-style-type: none">▪ Assistant Researcher, National Research Centre (NRC) Cairo, Egypt, 1991-1996.▪ Researcher Assistant, at NRC, 1997-1998.▪ Ph. D. mission at the Philipps University of Marburg, Germany 2001-2005.▪ Researcher at (GEBRI) 2005-2010.▪ Associate Professor of Biotechnology at (GEBRI) 2010-2016▪ Professor of Biotechnology at (GEBRI) 2017 till now <p>Head of Environmental Biotechnology department since August 2019</p> |
| | <ul style="list-style-type: none">▪ Membership of Egyptian Journal of Microbiology.▪ Associate editors of International Journal of Biotechnology and biochemistry, India.▪ Membership of Journal of Food, Agriculture and Environment, Finland.▪ Editorial board in Journal of Advanced in Microbiology.▪ Editorial board in Austen Journal of Biotechnology and Bioengineering. |

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| | <ul style="list-style-type: none"> ▪ Editorial board in Journal of Microbiological Creatures. ▪ Editorial member of (Advances in Biochemistry and Biotechnology). ▪ Editorial member of (Microbiology and Immunology Open access). ▪ Editorial member of (Symbiosis SOJ/Biotechnology Open access). ▪ Editorial member of (Microbiology and Modern Techniques). <p>Reviewer for:</p> <p>Current Microbiology Microbial Ecology African Journal of Biotechnology Journal of bioprocessing and Biotechniques (OMICS group) Journal of Pedosphere. Journal of Environmental Pollution. Frontiers in Microbiology Journal. Archives of Microbiology</p> |
| GRANTS & AWARDS | <ul style="list-style-type: none"> - Four years Mission financed from the ministry of High Education and Scientific Research in Egypt to finish (Ph. D.) degree in Germany. - Five months financed from World Lab Organization, Switzerland to do research in Marburg University, Germany. - Post doctor for one year financed from KOSEF (Korean Engineering and Science Foundation) at School of Biological Science in Seoul National University, South Korea. - Post doc for six months in the Biotechnology institute at the University of Minnesota from 9 of August 2010 to the end of January 2011. - Post doc for one year in the Biotechnology institute at the University of Minnesota from September 2015 to September 2016. |
| | <p>Awards</p> <p>List your Awards here...(start with the most recent)</p> <p>(Award's Name – Date – Location)</p> |
| LIST OF PUBLICATIONS | Abdelaal Shamseldin and Encarna Velazques 2020. The promiscuity of Phaseolus vulgaris L. (common bean) for nodulation with rhizobia: A review. World Journal of Microbiology and Biotechnology. 36:63. |

- Abdallah E. Mohamed, Maher Georg Nessim, Islam Ibrahim abou-el-Seoud, Khaled Mohamed Darwish, Abdelaal Shamseldin** 2019. Isolation and selection of highly effective phosphate solubilizing bacterial strains to promote wheat growth in Egyptian calcareous soils. Bulletin of the National Research Centre, 43:203.
- Epstein B, Abou-Shanab RAI, Shamseldin A, Taylor M, Guhlin J, Burghardt L, Nelson M, Sadowsky M J., Tiffin P.** 2018. Genome wide association analysis in the model rhizobium *Ensifer meliloti*. mSphere. Vol3 Issue5e00386-18.
- Maher G. Nessim, Abou-el-Seoud I.I., Abdelaal Shamseldin and Abdallah E. Mohamed.** 2018. Performance of Egyptian native phosphate solubilizing bacteria for improving growth and phosphorus uptake of wheat (*Triticum aestivum L.*) grown in a calcareous soil. Alexandria Journal of Soil and Water Science, 2: 116-132.
- Asal M. Wali, Abdelaal Shamseldin, Radwan F.I., Abdel Lateef E.M. and Zaki N.M.** 2018. Response of Barely (*Hordeum vulgare*) to humic, mineral and biofertilization under Calcareous soil conditions. Middle East Journal of Agriculture Research 7(1):71-82.
- Shamseldin, A., Abdelkhalek, A. and Sadowsky, M.J.** 2017. Recent changes to the classification of symbiotic, nitrogen-fixing, legume-associating bacteria: a review. Symbiosis 71:91-109.
- Elsayed E. Hafez, Mohamed, M Yacout, Abdelkhalek, A., Shamseldin, A** 2016. Arsenate bioremediation by *Bacillus pumilus* through *cis*- acting of both arB and subtilisin genes. Indian Journal of Biotechnology 15:518-524.
- Shamseldin, A., Nelson, M.S., Staley, C., Guhlin, J. and Sadowsky, M.J.** 2016. Draft genome sequence of four novel thermal-and alkaline-tolerant Egyptian *Rhizobium* strains nodulating bermudagrass. Genome announcement, Volume 4 Issue 5 e00988-16, <http://genomea.asm.org/content/4/5/e00988-16.full.pdf+html>. Impact Factor 1.18.
- Shamseldin, A.** 2016. Multilocus molecular characterization and biogeographical distribution of newly isolated Egyptian clover symbionts. Asian Academic Research Journal of Multidisciplinary

3(9):290-314. <https://www.researchgate.net/publication/308233411>.

Shamseldin, A., Abd El-Rahim, Wafaa M., Moawad, H., and Sadowsky M.J. 2016. Use of proteomic tools to analyze genes involved in thermal- and alkaline-tolerance *Rhizobium* strains nodulating Egyptian clover. Research Journal of Pharmaceutical, Biological and Chemical Science 7(5): 2994-3004. [http://www.rjpbc.com/pdf/2016_7\(5\)/\[385\].pdf](http://www.rjpbc.com/pdf/2016_7(5)/[385].pdf).

Shamseldin, A., Youseif S.H., Abd el-megeed, F.H., Abdelkhalek, A., Sadowsky, M.J. and Saleh, A.S. 2016. Selection and use of effective, competitive, clover-nodulating *Rhizobium* strains for use as commercial inoculants in alkaline and salt affected Egyptian soils. Asian Academic Research Journal of Multidisciplinary 3(7):97-113. <https://www.researchgate.net/publication/305397332>.

Shamseldin, A., Carro, L., Peix, A., Velázquez, E., Moawad, H. and Sadowsky, M.J. 2016. The symbiovar trifolii of *Rhizobium bangladeshense* and *Rhizobium aegyptiacum* sp. nov. nodulate *Trifolium alexandrinum* in Egypt. Systematic Applied Microbiology, 39:275-279. <http://dx.doi.org/10.1016/j.syapm.2016.05.002> Impact Factor 3.4.

Shamseldin, A., Abdelkhalek, A.A. and Abo Sedra, S.A. 2015. Isolation of Highly Effective, Super Nodulating and Competitive *Rhizobium* Strains of Egyptian Clover (*Trifolium alexandrinum* L.). Research Journal of Pharmaceutical, Biological and Chemical Science. 6(4):760-769. <https://www.researchgate.net/publication/280775074>.

Shamseldin, A. and Abdelkhalek, A.A. 2015. Isolation and identification of newly effective bacterial strains exhibiting great ability of lignin and Rice straw biodegradation. International Journal of Current Microbiology and Applied Sciences 4(6):1039-1049. <http://www.ijcmas.com/vol-4-6/Abdelaal%20Shamseldin%20and%20Ahmed%20A.%20Abdelkhal ek.pdf>.

Kabil-Sanaa, S.A., Shamseldin, A., Hassan-Amira, S.A., Sabra, W.A., Sabry-Sorrya, A. 2015. Production of rhamnolipids by *Pseudomonas aeruginosa* PAo1 from food wastes: purification,

detection and proteomic analysis. Asian Academic Research Journal of Multidisciplinary 2(1):183-205.
http://www.asianacademicresearch.org/2015_abstract/june_md_2015/16.pdf.

Abd El-Rahim, Wafaa, M. Shamseldin, A., Abd El Zaher, Fatma H., Moawad, H., Refaat, E. 2015. Biodiversity among dominant fungi involved in water production from non-traditional water resources. American Association for Science and Technology Journal of Biology 1(2):15-24.
<file:///C:/Users/Dr.%20Abdelaal/Downloads/9190749.pdf>.

Hamouda, S. A.; Marzouk, M. A.; Abbassy, M. A.; Abd El-Haleem, D. A. and Shamseldin, A. 2015. Isolation and identification of efficient Egyptian Malathion-degrading bacterial isolates. Journal of Basic Microbiology, 55 (331-337).
<http://www.ncbi.nlm.nih.gov/pubmed/23788108> (Impact factor 1.8).

Kabeil, S; Shamseldin, A.; Elsayed E. Hafez and Abd-Elgawad M. M. 2014. Microbial protein contribution in biological control: Minireview. World Applied Science Journal 32:66-77.
[http://www.idosi.org/wasi/wasi32\(1\)14/11.pdf](http://www.idosi.org/wasi/wasi32(1)14/11.pdf)

Youseif, S.H., Abdel-Megeed, Farouz H., Ageez, A., Zeinat MK. Shamseldin, A. and Saleh AS 2014. Phenotypic characteristics and genetic diversity of rhizobia nodulating soybean in Egyptian soils. European Journal of Soil biology. 60: 34-43.
<http://www.sciencedirect.com/science/journal/11645563/60>. (Impact factor 1.8).

Shamseldin, A., Moawad, H., Abd El-Rahim, Wafaa M. and Sadowsky M.J. 2014. Near–full length sequencing of 16S rDNA and RFLP indicates that *Rhizobium etli* is the dominant species nodulating Egyptian winter Berseem clover (*Trifolium alexandrinum* L.). Systematic Applied Microbiology, 37: 121-128.
<http://www.sciencedirect.com/science/journal/07232020/37/2> (Impact factor 3.4).

Shamseldin, A. 2013. The role of different genes involved in symbiotic nitrogen fixation-review. Global Journal of Biotechnology and Biochemistry 4:84-94. [http://idosi.org/gjbb/gjbb8\(4\)13/3.pdf](http://idosi.org/gjbb/gjbb8(4)13/3.pdf)

- Sarrwy, S.M.A., Elsheikh, M.H., Kabeil, Sanaa, S. and Shamseldin A.**
2012. Effect of foliar application of different potassium forms supported by Zinc on leaf mineral contents, yield and fruit quality of "Balady" Mandrine. Middle East Journal of Scientific Research, 12:490-498. [http://www.idosi.org/mejsr/mejsr12\(4\)12/10.pdf](http://www.idosi.org/mejsr/mejsr12(4)12/10.pdf).
- Shamseldin, A.; Moawad, H.; Khalafallah, M.;Fayez, M. and Monib, M.** **2012.** Pot and field experiment assessment of the symbiotic performance of new *Rhizobium* strains nodulating common bean (*Phaseolus vulgaris* L.) in Egypt under nitrogen and phosphorus fertilization. Journal of Applied Science Research, 8:4001-4008. <https://experts.umn.edu/en/publications/pot-and-field-assessment-of-the-symbiotic-performance-of-new-iden>.
- Shamseldin, A, El-Sheikh, M.H., Hassan, H.S.A. and Kabeil, Sanaa S.** **2010.** Microbial Bio-fertilization approaches to improve yield and quality of Washington navel orange and reducing the survival of nematode in the soil. Journal of American Science, 6 (3):1-10. http://www.jofamericanscience.org/journals/amsci/am0612/303276am0612_264_271.pdf Impact factor 0.3.
- Shamseldin, A. and Moawad, H.** **2010.** Inhibition of nitrogenase enzyme and completely suppression of nodulation in common bean (*Phaseolus vulgaris* L.) at high levels of available nitrogen. American-Euroasian Journal of Agriculture and Environmental Science 7(1):75-79. [http://idosi.org/aejaes/jaes7\(1\)/12.pdf](http://idosi.org/aejaes/jaes7(1)/12.pdf).
- Shamseldin, A., El-Saadani, M., Sadowsky, J.M. and An, C.S.** **2009.** Rapid identification and discrimination among Egyptian genotypes of *Rhizobium leguminosarum* bv. *viciae* and *Sinorhizobium meliloti* nodulating faba bean (*Viciae faba* L.) by analysis of *nodC*, ARDRA and rDNA sequence analysis. Soil Biology and Biochemistry, 41:45-53. <http://www.sciencedirect.com/science/article/pii/S0038071708003222> Impact factor 3.4.
- Shamseldin, A., Sadowsky, M.J., El-Saadani, M. and An, C.S.** **2008.** Molecular biodiversity and identification of free living *Rhizobium* strains from diverse Egyptian soils assessed by direct isolation without trap hosts. American-Euroasian Journal of Agriculture and Environmental Science (5):541-549.

[http://idosi.org/aejaes/aejaes4\(5\).htm](http://idosi.org/aejaes/aejaes4(5).htm)

Shamseldin, A. 2008. Plasmid content of salt stress-tolerant *Rhizobium* strains from Egyptian soils nodulating common bean (*Phaseolus vulgaris* L.). World Journal of Microbiology and Biotechnology, 24: 1603-1606. <http://link.springer.com/article/10.1007%2Fs11274-007-9618-x>. Impact 1.5.

Shamseldin, A., Hafez, E.E., Abd-Elsalam, H. and Werner, D. 2007. Genetic biodiversity of common bean nodulating rhizobia and studying their symbiotic effectiveness combined with strains of genus *Azotobacter*, *Bacillus* or *Pseudomonas* strains in Egypt. Research Journal of Agriculture and Biological Sciences, 3 (3):184-194. http://www.aensiweb.com/rjabs/rjabs_online.html

Shamseldin, A. 2007. Use of DNA markers to select well adapted *Phaseolus*-symbionts under acid and high temperature conditions. Biotechnology Letters, 29:37-44. <http://link.springer.com/article/10.1007%2Fs10529-006-9200-x>. Impact factor 1.68.

Shamseldin, A. and Werner, D. 2007. Presence of *Rhizobium etli* bv. *Phaseoli* and *Rhizobium gallicum* bv. *gallicum* in Egyptian soils. World Journal of Microbiology and Biotechnology, 23:285-289. <http://link.springer.com/article/10.1007%2Fs11274-006-9204-7>. Impact Factor 1.5.

Abd-Elsalam, H., Shamseldin, A. and Hafez, E.E. 2006. PAH degradation by two native Egyptian strains *Flavobacterium* sp. and *Pseudomonas putida*. Journal of Applied Sciences Research, 11:1092-1098. <http://www.aensiweb.com/jasr/jasr/2006/1092-1098.pdf>

Shamseldin, A., Nyalwidhe, J. and Werner, D. 2006. A proteomic approach towards the analysis of salt tolerance in *Rhizobium etli* and *Sinorhizobium meliloti* strains. Current Microbiology, 52:333-339. <http://www.ncbi.nlm.nih.gov/pubmed/16604415>. Impact factor 1.8.

Shamseldin, A. 2005. Improvement of common bean (*Phaseolus vulgaris*) nodulation by selected rhizobial strains from Egyptian soils through genotypic characterization, symbiotic effectiveness and competitiveness under salt stress conditions. Ph. D. thesis from

Department of Cell Biology and Applied Botany, Faculty of Science, Philipps University of Marburg, Germany. <http://archiv-ub.uni-marburg.de/diss/z2005/0080/pdf/daays.pdf>.

Shamseldin, A., Vinuesa, P., Thierfelder, H. and Werner, D. 2005. *Rhizobium etli* and *Rhizobium gallicum* nodulate *Phaseolus vulgaris* in Egyptian soils and display cultivar-dependent symbiotic efficiency. *Symbiosis*, 38: 145-161. http://www.cca.unam.mx/~vinuesa/Papers_PDFs/Shamselding_Retli_Rgalicum_Egypt_Symbiosis05.pdf. Impact factor 1.21.

Shamseldin, A. and Werner, D. 2005. High salt and high pH tolerance of new isolated *Rhizobium etli* strains from Egyptian soils. *Current Microbiology*, 50:11-16. <http://link.springer.com/article/10.1007%2Fs00284-004-4391-7>. Impact factor 1.8.

Detering, S., Dettmann, S., Thierfelder, H., Mahna, S. K., Prasad, B. N., Shamseldin, A.Y. and Werner, D. 2005. Glycosidase and glycosyltransferase activity increase in arbuscular mycorrhiza infected legume roots. *Symbiosis*, 40:157-162. http://mycorrhizae.org.in/index.php?option=com_papers&task=details&sid=437&theme=&search. Impact factor 1.21.

Shamseldin, A. and Werner, D. 2004. Selection of competitive strains of *Rhizobium* nodulating *Phaseolus vulgaris* and adapted to environmental conditions in Egypt, using the *gus*-reporter gene technique. *World Journal of Microbiology and Biotechnology*, 20: 377-382. <http://link.springer.com/article/10.1023%2FB%3AWIBI.0000033060.27180.8c>. Impact 1.5.

Monib M., Moawad, H., Fayed M., Khalafallah M. and Shamseldin A. 1998. Screening of indigenous bean nodulating rhizobia for enhanced N₂ Fixation with bean cultivar. In: Symposium on Agro-Technologies Based On Biological Nitrogen Fixation for Desert Agriculture, El-Arish, North Sinai Governorate, 14-16: April, pp 105-118.

Monib, M., Moawad, H., Fayed M., Khalafallah, M. and Shamseldin A. 1998. Competition between the most promising local and

standard type strains of bean rhizobia nodulating cv. Giza 6 using Gus gene and FA techniques. In: The Third Arab Conference on Modern Biotechnology and Areas of Application in the Arab World, 14-17: December, pp 435-442, Cairo, Egypt.

Monib, M., Moawad, H., Fayed M., Khalafallah, M. and Shamseldin A. 1998. Characterization of bean rhizobia isolated from Egyptian soils. In: The Third Arab Conference on Modern Biotechnology and Areas of Application in the Arab World, 14-17: December, pp 423-433, Cairo, Egypt.

Shamseldin, Abdelaal 1997. Studies on *Rhizobium leguminosarum* bv. *Phaseoli* in Egyptian soils. M. Sc. thesis from Agricultural Microbiology Department at Faculty of Agriculture, Cairo University, Egypt.