

**Curriculum vitae of  
Ahmed Mohamed Atef Sallam**

**Biographical**

Name : Ahmed Mohamed Atef Sallam  
 Title : Dr.  
 Position : Assistant Professor in Dept. of Genetics, Faculty of Agriculture, Assiut University. Assiut, Egypt  
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 Website : [http://www.aun.edu.eg/membercv.php?M\\_ID=1385](http://www.aun.edu.eg/membercv.php?M_ID=1385)

**Education**

2000-2004 : B.Sc. in Agricultural Sciences (Genetics), excellent with honor degree, Faculty of Agriculture, Assiut University

2006-2008 : M.Sc. in Agricultural Sciences (Plant Breeding and Genetics), Faculty of Agriculture, Assiut University  
Title thesis  
 Genetic variation in stem diameter in wheat (*Triticum aestivum* L.) in relation to drought and heat stress tolerance

2011-2014 : Ph.D. in Agricultural Sciences (Molecular Plant Breeding and Genetics), Division of Plant Breeding, University of Göttingen, Germany.  
Title thesis  
 Detailed genetic approach to improve frost tolerance of German winter faba beans

**Academic records**

2006-2008 : Demonstrator (research and teaching assistant), Dept. of Genetics, Faculty of Agriculture, Assiut University.

2008-2014 : Assistant Lecturer (research and teaching assistant), Dept. of Genetics, Faculty of Agriculture, Assiut University.

2014-now : Assistant Professor (research and teaching assistant), Dept. of Genetics, Faculty of Agriculture, Assiut University.

08/2015-03/2017 : Research Scientist, Department of Agronomy & Horticulture, University of Lincoln-Nebraska, USA  
 Wheat breeding (Prof. Dr. Peter Stephen Baenziger)  
 Corn breeding (Prof. Dr. Oscar Rodriguez)

**Awards**

- 2011-2014 : German Academic Exchange Service (DAAD) PhD Scholarships.
- 03-09/2016 : Post-doctoral scholarship, University of Nebraska-Lincoln
- 01.2017 : Certificate of Recognition of high outstanding achievement, The Honor Society of Agriculture, University of Nebraska-Lincoln, USA
- 01.2017 : Certificate of Outstanding Contribution in Reviewing, Journal of Genetic Engineering and Biotechnology, ELSEVIER publisher.

**Grants**

- 05/2014 : 1500 Euro (Small equipment award), SPAD meter (CCM-200 plus) German Academic Exchange Service (DAAD).
- 10/2016 : Award to participate InterDrought international conference 2016 with an oral presentation, ID-V Conference Organization Committee, India
- 01/2017 : A travel grant to participate in Plant & Animal Genome Conference, San Diego, USA
- 3-19/11/2017 : Travel grant to attend a two-week workshop in agriculture precision at University of Germany and University of Hannover. The full grant was provided by DAAD, Germany

**Assistance in teaching undergraduate and postgraduate courses:**

- 2005-2010 :
  - Principles of genetics for students in Faculty of Agriculture.
  - Principles of genetics for students in Faculty of Veterinary Medicine.
  - Cytogenetic techniques for students and postgraduates in Faculty of Agriculture.
  - Population Genetics for Faculty of Science students, animal biology.
  - Animal breeding for students in Faculty of Agriculture.
- 2014 :
  - Human Genetics
  - Agricultural Genetics

**Duties:**

- 2005-2010 (Assiut University) :
  - Conducting seminars, discussion groups, and laboratory sessions to supplement lectures.
  - Assisting in exams preparation and administrating.

- Grad examination, term papers, and laboratory reports.
  - Assisting under-graduate students in conducting their experiments of Genetics.
  - Assisting under-graduate students through summer practical training course.
- (2011-2014) : • Conducting experiments in green houses, field trials, frost  
University of growth chamber  
Goettingen • Genotyping using RAPD and SNPs
- 06/2014-03/2015 : • Giving lectures to undergraduate students in field of plant  
genetics  
• Leading a research on resistance to loose smut in Barley
- 08/2015-03/2017 : • SNP genotyping using KASP assays. I wrote a protocol for  
(University of using KASP by FLUOstar Omega  
Nebraska-Lincoln) • Responsible for molecular genetic lab in Baenziger's group.  
• Guide PhD students for their experiments in field, green  
house, and molecular genetic lab  
• Working in many projects to improve wheat for biotic (stem  
rust, leaf rust, fusarium head blight, and loose smut) and  
abiotic (drought, winter hardiness, and combined drought and  
heat stresses)  
• Analyzing data: phenotypic data, QTL mapping, GWAS,  
genetic diversity, linkage disequilibrium, and population  
genetics.

### Seminar/workshops contribution as a Trainer

- 23.03.2017 : Genotyping by Kompetitive Allele Specific PCR (KASP).  
University of Lincoln-Nebraska, USA (Trainee)
- 15.09.2017- : Plant Genetics Seminars – PGS, Faculty of Agriculture, Assiut  
01.01.2018 University, Egypt (Organizer)

### Attending conferences:

- 28.02-01.03.2012 : Breeding crops for sustainable agricultural production  
international conference. Justus-Liebig-Universität Gießen,  
Germany.
- 18-20.09.2012 : Genome Research Working Group Conference of the GPZ.  
Martin Luther University Halle-Wittenberg. Germany.
- 19-21.09.2012 : Resilience of agricultural systems against crises Conference.  
University of Gottingen. Germany.
- 09-11.05.2012 : First Legume Society Conference. Novi Sad. Serbia.
- 17-19.09.2013 : Agricultural development within the rural-urban continuum.  
University of Hohenheim. Germany.

- 24–26 .09.2013 : Breeding for Nutrient Efficiency. University of Gottingen. Germany.
- 11-13.02.2014 : Conference of the Genome Research Working Group. Max Plant Institute for Breeding Research. Germany.
- 15-16.10.2015 : Plant Phenomics: From Pixels to Traits, University of Nebraska-Lincoln, and Lincoln, USA.
- 14-15.10.2016 : Plant Science Retreat. University of Nebraska-Lincoln, Nebraska City, USA.
- 14-18.01.2017 : PAG XXV - Plant & Animal Genome Conference, San Diego, USA.
- 14.03.2017 : UNL Plant Breeding Symposium, University of Nebraska-Lincoln, USA.

## Publications

- Manuscripts

- Mourad, A., A. Sallam, S. Wegulo, J. Poland, M. Guttieri, V. Belamkar, R. Bowden, P.S. Beanziger. 2018. Genetic architecture of common bunt resistance in winter wheat using Genome-wide association study. *BMC Plant Biology*. Minor Revision.
- Sallam, A., A. Mourad, W. Hussain, P. Stephen Baenziger. 2018. Genetic variation in drought tolerance at seedling stage and grain yield in low rainfall environments in wheat. *Euphytica*. Accepted
- Waseem Hussain, Vikas Belamkar, J. Mary Guttieri, Jorge Venegas, Amanda Easterly, Ahmed Sallam, P. Baenziger<sup>1</sup>, Stephen. 2017. Genotyping-by-Sequencing Derived High-Density Linkage Map and its Application to QTL Mapping of Flag Leaf Traits in Bread Wheat. *Journal of Plant Registration*. Accepted
- Mourad, A., A. Sallam, S. Wegulo, J. Poland, M. Guttieri, V. Belamkar, R. Bowden, P.S. Beanziger. 2018. Identification of novel SNPs for Sr6 stem rust resistance gene in winter bread wheat by using GWAS. *Frontiers in Plant Sciences*. <https://doi.org/10.3389/fpls.2018.00380>
- Shamseldeen Shehabeldin Eltahir, Ahmed Sallam, Vikas Belamkar, hamdy emara, ahmed nowar, Khaled F M Salem, Jesse Poland and Peter Stephen Banziger. 2018. Genetic diversity and Population Structure of F3:6 Nebraska Winter Wheat Genotypes Using Genotyping-By-Sequencing. *Frontiers in Genetics*. <https://doi.org/10.3389/fgene.2018.00076>
- Waseem Hussain, P. Baenziger<sup>1</sup>, Stephen, Vikas Belamkar, J. Mary Guttieri, Jorge Venegas, P., Amanda Easterly, Ahmed Sallam, Jesse Poland. 2017. Genotyping-by-Sequencing Derived High-Density Linkage Map and its Application to QTL Mapping of Flag Leaf Traits in Bread Wheat. *Nature (Scientific Reports)*. 7
- A Sallam, A., J Sidiqi, P.S. Beanziger. 2017. Screening Winter Wheat Lines in Nebraska for the Fhb1 Gene Using Kompetitive Allele Specific PCR (KASP). *Journal*

- of *Plant Genetics and Breeding* 1 (1), 1-5
- Sallam, A.**, M. Ghanbari, R. Martsch. 2017. Genetic analysis of winter hardiness and effect of sowing date on yield traits in winter faba bean. *Scientia Horticulturae* 224, 296–3
- Sallam, A.**, Y. Moursi. 2016. Selection Index for Seedling Root Traits to Improve Frost Tolerance in Winter Faba Bean. *Annals of Agriculture and Crop Science*. 1(3): 1011.
- Sallam, A.**, M. Arbaoui, N. Absheir, R. Martsch. 2016. Identification and verification of QTL associated with frost tolerance using linkage mapping and GWAS in winter faba bean. *Frontiers in Plant Sciences*. DOI 10.3389/fpls.2016.01098.
- Sallam, A.**, R. Martsch. 2016. Validation of RAPD markers associated with frost tolerance in winter faba bean (*Vicia faba* L.). *Turkish Journal of Botany*. 40:488-498. DOI: 10.3906/bot-1508-21.
- Ali, M., G. Welna, **A. Sallam**, R. Martsch, C. Balko, O. Sass, W. Link. 2016. Mapping and association analysis of frost and drought stress tolerance in faba bean (*Vicia faba* L.). *Crop Science*. 56(3):1036-1048. DOI: 10.2135/cropsci2015.08.0503
- Sallam, A.**, Arun Dhanapal, Siyang Liu. 2016. Association mapping of winter hardiness and yield traits in winter faba bean (*Vicia faba* L.). *Crop Pasture & Science*. 67:55-68. DOI: 10.1071/CP15200
- Salem, K., **A. Sallam**. 2016. Genetic diversity assessment in rice based on SSR markers and morphological traits. *Comptes Rendus Biologies*. 339:1-9 DOI: 10.1016/j.crvi.2015.11.003.
- Sallam, A.**, EL. Hamed, M. Hashad, M. Kadry. 2015. Genetic variation in stem characters and their relation to 1000 kernel weight and spike yield in wheat under abiotic stresses. *Journal of Crop Science and Biotechnology*. 18(3): 137-146. DOI: 10.1007/s12892-015-0014-z
- Sallam, A.**, R. Martsch. 2015. Association mapping of frost tolerance in faba bean (*Vicia faba* L.). *Genetica*. 143 (4): 501-514
- Sallam, A.**, R. Martsch, Y. Moursi. 2015. Genetic variation of morpho-physiological traits associated with frost tolerance in faba bean. *Euphytica*. 205 (2): 395-408
- Sallam, A.**, EL. Hamed, M. Hashad, M. Kadry. 2014. Inheritance of stem diameter and its relationship to heat and drought tolerance in wheat (*Triticum aestivum* L.). *Journal of Plant Breeding and Crop Science*. 6 (1):11-13.
- Conferences (Abstract + poster)
    - Shamseldeen E., **A. Sallam**, V. Belamkar, H. A. Emara, A. A. Nower, K. F. M. Salem, J. Poland, P. S. Baenziger. Genetic diversity and population structure of F3:6 Nebraska winter wheat (*Triticum aestivum* L.) Genotypes Using Genotyping-By-Sequencing. Plant Breeding Symposium, University of Nebraska-Lincoln, USA. March 14, 2017

- Sallam, A.**, D. Jarquin, Z. Liang, J. Schnable, E. Gilbert, A. Lorenz, O. Rodriguez. Investigation of genetic structure and diversity of a subset of commercial popcorn inbred lines. Plant Breeding Symposium, University of Nebraska-Lincoln, USA. March 14, 2017
- Sallam, A.,** A. Amro, Mona A Dawood, A. El-Akhdar(4), P. S. Baenziger. Assessing genetic variation for heat tolerance and genetic diversity in spring barley (*Hordeum vulgare* L.). Plant Breeding Symposium, University of Nebraska-Lincoln, USA. March 14, 2017
- Sallam, A.,** V. Belamkar, W. Hussain, A. Mourad. P. S. Baenziger. QTL mapping for traits associated with drought tolerance and combined drought and heat tolerance in seedling winter wheat. Plant & Animal Genome XXV Conference, San Diego, USA. January, 14-18, 2017.
- Sallam, A.,** V. Belamrker, W. Hussain, A. Mourad. P. S. Baenziger. QTL mapping for traits associated with drought tolerance and combined drought and heat tolerance in seedling winter wheat. Plant & Animal Genome XXV Conference, San Diego, USA. January, 14-18, 2017.
- Mourad A, **A. Sallam**. S. Wegulo, J. Poland, M. Guttieri, V. Belamkar, R. Bowden, et al. Identification of novel SNPs for Sr6 stem rust resistance gene in winter bread wheat by using GWAS. Plant & Animal Genome XXV Conference, San Diego, USA. January, 14-18, 2017.
- Sallam, A.,** V. Belamrker, W. Hussain, P. S. Baenziger. Molecular genetic dissection to improve drought tolerance in wheat. UNL Plant Science Retreat Conference. October 14-15, 2016.
- Boontung, R., **A., Sallam**, P. S. Baenziger. SNP genotyping in the rapid cycling winter wheat background ‘Goodstreak x Apogee’ with the KASP assay. UNL Plant Science Retreat Conference. October 14-15, 2016. DOI:10.6084/m9.figshare.4036014
- Mourad A, **A. Sallam**. S. Wegulo, J. Poland, M. Guttieri, V. Belamkar, R. Bowden, et al. Genetic Analysis of common bunt resistance in winter bread wheat. October 14-15, 2016. DOI: 10.6084/m9.figshare.4036011.
- Mourad A, S. Wegulo, J. Poland, M. Guttieri, V. Belamkar, **A. Sallam** , R. Bowden, et al. 2015. Molecular Marker Characterization of Stem Rust Resistance Genes in Nebraska Wheat Germplasm. Plant Phenomics: from pixels to traits. October 15-16, 2015. University of Nebraska-Lincoln, USA.
- Ali, M., G. Welna, **A. Sallam**, C. Balko, O. Sass, M. Senbayram, R. Martsch, W. Link. 2014. Association analysis of abiotic stresses tolerance in winter faba bean (*Vicia faba* L.). Conference of the Genome Research Working Group, Max Plant Institute for Breeding Research. 11-13 February 2014. P 48.
- Ali, M, Welna G, **Sallam A**, Link W, Balko C .2014. Association analyses on frost and drought tolerance in German winter faba bean (*Vicia faba*

- L.). In 'GPZ Congress 2014: Genetic Variation in Plant Breeding'. 23–25 September 2014. (German Society for Plant Breeding)
- Ali, M., G. Welna, **A. Sallam**, C. Balko, O. Sass, M. Senbayram, R. Martsch, W. Link. 2013. Breeding research for abiotic stresses tolerance in faba bean (*Vicia faba* L.). First Legume Society Conference. Novi Sad, Serbia. 09-11 May 2012. P 73.
- Sallam, A.**, N. El-Sayed, M. Hashad, M. Omara. 2013. Combing Ability Analysis for stem characters and yield components in wheat (*Triticum aestivum* L.) under drought and heat Stresses. Agricultural development within the rural-urban continuum. University of Hohenheim, Germany. 17-19 September 2013. P 228.
- Ali, M., G. Welna, **A. Sallam**, C. Balko, O. Sass, M. Senbayram, R. Martsch, W. Link. 2013. Research on abiotic stress tolerance based on the Göttingen Winter Bean population. Building a new research alliance to reclaim Faba bean production area abandoned to Orobanche” Workshop, Rebate, Morocco. P 28.
- Ali, M., G. Welna, **A. Sallam**, C. Balko, O. Sass, M. Senbayram, R. Martsch, W. Link. 2014. Association analysis of abiotic stresses tolerance in winter faba bean (*Vicia faba* L.). Conference of the Genome Research Working Group, Max Plant Institute for Breeding Research. 11-13 February 2014. P 48.
- Ali, M, Welna G, **Sallam A**, Link W, Balko C .2014. Association analyses on frost and drought tolerance in German winter faba bean (*Vicia faba* L.). In 'GPZ Congress 2014: Genetic Variation in Plant Breeding'. 23–25 September 2014. (German Society for Plant Breeding)
- Sallam, A.**, El. Hamed, M. Hashad, M. Omara. 2012. Genetic variation of stem Characters in wheat (*Triticum aestivum* L.) and their relation to yield components under drought and heat Stress. Resilience of Agricultural Systems Against Crises Conference. Goettingen University, Germany. 19-21 September 2012. P 141
- Sallam, A.** and W. Link. 2012. The Göttingen frost tolerance test for winter faba beans. Genome Research Working Group Conference of the GPZ. Martin Luther University Halle-Wittenberg, Germany. 18-20 September 2012. P 26.
- Oberländer, A., **A. Sallam**, R. Martsch and W. Link. 2012. Genetic variation for aspects of frost-tolerance in the Göttingen Winter Bean Population. Breeding crops for sustainable agricultural production international

conference Justus-Liebig-Universität Gießen. Germany. 28 February – 01 March 2012. P 48.

**Sallam, A.**, M. Omara, El. Hamed , M. Hashad. 2009. Genetic variation in stem diameter in wheat (*Triticum aestivum* L.) in relation to drought and heat stress tolerance. International Conference (Abiotic Stress Tolerance in Plants). Vienna. Austria. 8-11 February 2009. N. 247(168).

#### Editorial Board:

- Annals of Agriculture & Crop Science  
(<http://austinpublishinggroup.com/agriculture-crop-sciences/editorialBoard.php>).
- Journal of Cell Science and Apoptosis  
(<https://www.omicsonline.org/editorialboard-cell-science-apoptosis.php>).
- SF Journal of Biotechnology and Biomedical Engineering  
([https://scienceforecastoa.com/Journal\\_Related/Journal\\_Pages/JournalEditorialBoard.aspx?JId=J1032\\_SJBBE](https://scienceforecastoa.com/Journal_Related/Journal_Pages/JournalEditorialBoard.aspx?JId=J1032_SJBBE))
- Journal of Plant Genetics and Breeding  
(<https://www.omicsonline.org/editorialboard-journal-plant-genetics-breeding.php>)

#### Reviewership:

- Frontiers in Plant Sciences
- International Journal of Plant & Soil Science.
- Journal of Genetic Engineering and Biotechnology.
- African Journal of Agriculture Research
- Forensic Investigation
- International Journal of Biodiversity and Conversation
- Journal of Plant Breeding and Crop Science
- Journal of Plant Science and Research
- Journal of Cereals and Oilseeds
- Frontiers in Plant Science
- Molecular Genetics and Genomics
- Journal of Genetics
- Theroretical Applied Genetics

#### Experiences:

- *Methodology*: Plant breeding methods, DNA isolation, Gel documentation, Genetic engineering, Cytogenetic techniques, PCR, Electrophoresis, Molecular marker (RAPD, AFLP, SNPs), Association analysis, QTL mapping, Analysis of leaf fatty acid composition.
- *Software*: Plabstat, Plabplan, SAS (fair), R statistics, STATISTICA, TASSEL 3.0, QTL network, Mapmaker 3.0, Mapchart 2.0, STRUSTRUCTURE 2.3.4 for population genetic structure.



**Field of study:**

- Quantitative genetics, Population genetics, Molecular plant breeding and genetics, Molecular biology and Cytogenetics.

**Language:**

- Arabic (mother language).
- English.
- German.