

PERSONAL INFORMATION

Hamdy Abdel-Shafy Abd-Raboh Hanafy

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Sex Male | **Date of birth** 15 Jul 1980 | **Nationality** Egyptian

WORK EXPERIENCE

- Jan 2019–Present **Associate Professor, Animal Breeding Biology and Molecular Genetics**
Cairo University, Faculty of Agriculture, Giza (Egypt)
- Sep 2019–Nov 2019 **PostDoc Fellow, Breeding Biology and Molecular Genetics**
Humboldt University of Berlin, Faculty of Life Sciences, Berlin (Germany)
- Oct 2013–Dec 2018 **Lecturer, Animal Breeding Biology and Molecular Genetics**
Cairo University, Faculty of Agriculture, Giza (Egypt)
- Jul 2018– Aug 2018 **Research Associate**
National Institute of Animal Science, Animal Genomics & Bioinformatics Division, Jeollabuk-do (South Korea (Republic of Korea))
- Oct 2017–June 2018 **Supervisor of Hormones and Immunology Lab, Cairo University Research Park (CURP)**
Cairo University, Faculty of Agriculture, Giza (Egypt)
- Jul 2016–Jan 2017 **PostDoc Fellow, Breeding Biology and Molecular Genetics**
Humboldt University of Berlin, Faculty of Life Sciences, Berlin (Germany)
- Nov 2015– Feb 2018 **Member of International Relations Office**
Cairo University, Faculty of Agriculture, Giza (Egypt)
- Nov 2013– Mar 2015 **Scientific Supervisor of Experimental Dairy Cattle Farm**
Cairo University, Faculty of Agriculture, Agricultural Experiment Station, Giza (Egypt)
- Oct 2009– Aug 2013 **PhD Fellow, Breeding Biology and Molecular Genetics**
Humboldt University of Berlin, Faculty of Life Sciences, Berlin (Germany)
- May 2007– Sep 2013 **Assistant Lecturer, Animal Physiology**
Cairo University, Faculty of Agriculture, Giza (Egypt)
- Apr 2002– Apr 2007 **Demonstrator, Animal Production**
Cairo University, Faculty of Agriculture, Giza (Egypt)

PERSONAL SKILLS

Mother tongue(s) Arabic

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
German	B2	B2	B2	B2	B2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills Team Work: I have been involved in various types of team tasks as a member of several projects conducted at Cairo University and Humboldt University of Berlin.
Good communication skills gained through my experience as a teaching staff for various courses and through traveling abroad to study or to participate in trainings, workshops and conferences. Good ability to adapt to multicultural environments gained through my study experience abroad.

Job-related skills Familiar with some bioinformatics and statistical software tools used in animal breeding and genetics (e.g. Arlequin, GenAIEx, PLINK, GCTA, Haploview, fastPHASE, Beagle, BLUPF90, DMU and SAS) in addition to the some relevant databases (e.g. Ensembl, NCBI, AnimalQTLdb).

EDUCATION AND TRAININGS

Online-Learning : April 2021 – June 2021	Advanced Data Analysis - Nanodegree Program Udacity - https://www.udacity.com/
24 -28 Jan 2016 - E-Learning - 28 Aug - 1 Sep 2016	ProGRANT Proposal Writing for Research Grants: Practical-oriented Training for New Researchers German Academic Exchange Service (DAAD), Cairo (Egypt)
28 Sep – 9 Oct 2015	Understanding, Managing and Protecting Biodiversity SLE training centre, Humboldt University of Berlin, Faculty of Agriculture and Horticulture, Berlin (Germany)
14 – 25 Sep 2015	Training of Trainers SLE training centre, Humboldt University of Berlin, Faculty of Agriculture and Horticulture, Berlin (Germany)
9 – 13 Mar 2015	Applications of Bioinformatics on Animal Breeding Faculty of Veterinary Science, University of León, León (Spain)
1 – 12 Sep 2014	Climate Change and Sustainable Natural Resources Management SLE training centre, Humboldt University of Berlin, Faculty of Agriculture and Horticulture, Berlin (Germany)
1 Apr 2010 – 17 Jul 2013	PhD of Agricultural Sciences, Breeding Biology and Molecular Genetics Humboldt University of Berlin, Faculty of Agriculture and Horticulture, Berlin (Germany)
01 – 03 Oct 2012	Quantitative Trait Analysis Humboldt University of Berlin, Faculty of Agriculture and Horticulture, Berlin (Germany)
18 – 22 Oct 2010	Bioinformatics in Animal Genetics Humboldt University of Berlin, Faculty of Agriculture and Horticulture, Berlin (Germany)
30 Oct – 04 Nov 2010	Second Workshop of German and Ukrainian Young Scientists in Agricultural Sciences Humboldt University of Berlin, Faculty of Agriculture and Horticulture, Berlin (Germany)
Oct 2002 – Mar 2007	Master of Agricultural Sciences, Major: Animal Production Sciences, Minor: Animal Physiology Faculty of Agriculture, Cairo University, Giza (Egypt)
12 – 13 Sep 2006	Good Practices for the Animal Feed and Livestock Industries in the Region of Near East Faculty of Agriculture, Cairo University, Giza (Egypt)
01 – 04 Jan 2006	Reproductive Physiology and Management Workshop Faculty of Veterinary Medicine , Assiut University, Assiut (Egypt)
Sep –Oct 2004	The Use of Biotechnology in Developing Agriculture in African States Faculty of Agriculture, Cairo University, Giza (Egypt)
Sep 1997 –May 2001	Bachelor of Agricultural Sciences. Major: Animal Production Sciences, Minor: Dairy Sciences Faculty of Agriculture, Cairo University, Giza (Egypt)

PROJECTS ACTIVITIES

Principal Investigator	Genomic evaluation for milk production traits in Egyptian buffalo: A step forward for sustainable improvement and food security. Funded by Cairo University, Egypt, March 2017 – February 2019.
Co-PI	Molecular characterization of major candidate genes associated with milk quality in Egyptian and Indian buffaloes. Egypt-India Joint Call. Academy of Scientific Research and Technology, May 2016 – April 2018.
Co-PI	Marker-Assisted Selection using microsatellites for milk production in Egyptian buffaloes. Funded by Cairo University, Egypt, February 2014 – January 2016.
Member	OPTIBOV: Genetic characterization of cattle populations for optimized performance in African ecotypes. LEAP-Agri, June 2020 – June 2023.

PUBLICATIONS

- Shao, B., H. Sun, M.J. Ahmad, N. Ghanem, **H. Abdel-Shafy**, C. Du, T. Deng, S. Mansoor, Y. Zhou, Y. Yang, S. Zhang, L. Yang, and G. Hua. 2021. Genetic features of reproductive traits in bovine and buffalo: lessons from bovine to buffalo. *Frontiers in Genetics*. *Frontiers in Genetics* 12:617128.
- Abdel-Shafy, H.**, M. A.A. Awad, H. El-Regalaty, S.E-D. El-Assal, and S. Abou-Bakr. 2020. Prospecting genomic regions associated with milk production traits in Egyptian buffalo. *J Dairy Res.* 87(4): 389-396.
- Awad, M. A.A., S. Abou-Bakr, H. El-Regalaty, S.E-D. El-Assal and **H. Abdel-Shafy**. 2020. Determination of Potential Candidate Genes Associated with Milk Lactose in Egyptian Buffalo. *World Vet J.* 10(1): 35-42.
- Abdel-Shafy, H.**, M. A.A. Awad, H. El-Regalaty, A. Ismael, S.E-D. El-Assal, and S. Abou-Bakr. 2020. A single-step genomic evaluation for milk production in Egyptian buffalo. *Livestock Science.* 234: 103977.
- Lu, X. R., A.Q. Duan, W.Q. Li, **H. Abdel-Shafy**, H.E. Rushdi, S.S. Liang, X.Y. Ma, X.W. Liang, and T.X. Deng. 2020. Genome-wide analysis reveals genetic diversity, linkage disequilibrium, and selection for milk production traits in Chinese buffalo breeds. *J Dairy Sci.* 103: 4545–4556.
- El-Halawany, N., A. El-Werdany, Y.A. El-Sayed, A.A. Shawky, A.F. Al-Tohamy, **H. Abdel-Shafy**, and F.M. Abd-El-Razek. 2019. Characterization of growth hormone gene (GH) in three Egyptian goat breeds. *Meta Gene.* 20: 100556.
- El-Halawany, N., A.A. Shawky, M.S. Sherif, A.E.M. El-Wardany, M.A. Abdel-Latif, **H. Abdel-Shafy**, A.F.M. Al-Tohamy, and Y. El-Sayed. 2019. Investigation of STAT5A, OLR1, LF and TLR4 Variants and Its Association With Milk Yield In Egyptian Buffalo. *Research Journal of Pharmaceutical, Biological and Chemical Sciences.* 10: 179-187.
- El-Halawany, N., A.A. Shawky, A.F.M. Al-Tohamy, M.A. Abdel-Latif, **H. Abdel-Shafy**, Y.A. Ghazi, C. Neuhoff, and K. Schellander. 2018. Investigating the effect of Complement Component 5 polymorphisms on mastitis resistance in Egyptian buffalo and cattle. *Research in Veterinary Science.* 118: 45-51.
- El-Halawany, N.K., O.M. Kandil, A.A. Shawky, A.F.M. Al-Tohamy, Y.A. El-Sayd, **H. Abdel-Shafy**, E.I. Abou-Fandoud, S.N. Abdel-Azeem, A.H. Abd El-Rahim, A.S.S. Abdoon, J.J. Michal, and Z. Jiang. 2018. Investigating the effect of GDF9, BMP15, BMP6 and BMPR1B polymorphisms and their transcripts expression on Egyptian sheep fecundity. *Small Ruminant Research.* 165: 34-40.
- Abdel-Shafy, H.**, N.K. El-Halawany, A.A. Shawky and A.F.M. Al-Tohamy. 2018. Revisiting genome-wide suggestive regions for daily milk production in Egyptian buffalo using a multi-locus approach. The 11th WCGALP, Auckland, New Zealand.
- Abdel-Shafy H.**, R.H. Bortfeldt, M. Reissmann, and G.A. Brockmann. 2018. Validating genome-wide associated signals for clinical mastitis in German Holstein cattle. *Animal Genetics.* 49(1): 82-85.
- Rushdi, H.E.D, R.E.A. Moghaieb, **H. Abdel-Shafy**, and M.A.M. Ibrahim. 2017. Association between microsatellite markers and milk production traits in Egyptian buffaloes. *Czech Journal of Animal Science.* 62(9): 384–391.
- El-Halawany, N.K., **H. Abdel-Shafy**, A.A. Shawky, M.A. Abdel-Latif, A.F.M. Al-Tohamy, and O.M. Abd El-Moneim. 2017. Genome-wide association study for milk production in Egyptian buffalo. *Livestock Science.* 198: 10–16.
- El-Halawany, N.K., F.M. Abd-El-Razek, Y.A. El-Sayed, A. El-Werdany, A.A. Shawky, A.F. Al-Tohamy and **H. Abdel-Shafy**. 2017. Genetic Polymorphisms in Exon-3 region of Growth Hormone Gene in the Egyptian Goat Breeds. *Egyptian Academic Journal of Biological Sciences.* 9(2): 1-8.
- El-Halawany, N., A.A. Shawky, A.F.M. Al-Tohamy, L. Hegazy, **H. Abdel-Shafy**, M.A. Abdel-Latif, Y.A. Ghazi, C. Neuhoff, D. Salilew-Wondim, and K. Schellander. 2017. Complement component 3: Characterisation and association with mastitis resistance in Egyptian water buffalo and cattle. *Journal of Genetics.* 96(1): 65-73.
- Abdel-Shafy H.**, R.H. Bortfeldt, M. Reissmann, and G.A. Brockmann. 2016. Confirmation of genome-wide associations for clinical mastitis in German Holstein cattle. *Journal of Animal Science (Abstract).* 94:115-116.
- Abdel-Shafy, H.**, Progress and challenges in genome-wide association studies in buffalo. The 2nd International Conference on the Modern Approaches in Livestock's Production Systems. October 12-14, 2015, Alexandria, Egypt.
- Abdel-Shafy, H.**, R.H. Bortfeldt, J. Tetens, G.A. Thaller, and G.A. Brockmann. 2014. Performance of single markers vs. haplotypes to identify genomic loci associated with mastitis resistance in German Holstein cattle. The 10th WCGALP, Vancouver, Canada.

Abdel-Shafy H., R.H. Bortfeldt, M. Reissmann, and G.A. Brockmann. 2014. *Short communication: Validation of somatic cell score-associated loci identified in a genome-wide association study in German Holstein cattle.* Journal of Dairy Science. 97(4): 2481-2486.

Abdel-Shafy, H., R.H. Bortfeldt, J. Tetens, and G.A. Brockmann. 2014. Single nucleotide polymorphism and haplotype effects associated with somatic cell score in German Holstein cattle. Genetics, Selection, Evolution. 46(1): 35.

CONFERENCES

The 11th World Congress on Genetics Applied to Livestock Production (WCGALP), 11 - 16 February 2018. Auckland, New Zealand. Abdel-Shafy, H., N.K. El-Halawany, A.A. Shawky and A.F.M. Al-Tohamy. 2018. Revisiting genome-wide suggestive regions for daily milk production in Egyptian buffalo using a multi-locus approach.

Performance and longevity in dairy cows - a contradiction? Hannover, Germany. 3 – 4 November 2016.

The 35th International Society for Animal Genetics Conference. Salt Lake City, Utah, USA. July 23-27 2016. Abdel-Shafy H., R.H. Bortfeldt, M. Reissmann, and G.A. Brockmann. Confirmation of genome-wide associations for clinical mastitis in German Holstein cattle.

The 2nd International Conference on the Modern Approaches in Livestock's Production Systems. October 12-14, 2015, Alexandria, Egypt. Abdel-Shafy, H., Progress and challenges in genome-wide association studies in buffalo.

International Symposium on Animal Functional Genomics, 27 - 29 July 2015. Piacenza, Italy. El-Halawany, N.K., H. Abdel-Shafy, A.A. Shawky, and A.F.M. Al-Tohamy. A genome-wide association study for daily milk production in Egyptian buffalo.

The 10th World Congress on Genetics Applied to Livestock Production (WCGALP), 17 - 22 August 2014. Vancouver, Canada. Abdel-Shafy, H., R.H. Bortfeldt, J. Tetens, G.A. Thaller and G.A. Brockmann. Performance of single markers vs. haplotypes to identify genomic loci associated with mastitis resistance in German Holstein cattle.

Biovision: New Life Science, From Promises to Practice, 7-9 April 2014. Alexandria, Egypt.

Genomic Selection in Animals and Plants (GenSAP) symposium, 13-14 June 2013. Aarhus University, Denmark.

25th International conference - Genetic Days, 18-20 September 2012. Wrocław, Poland. Abdel-Shafy, H., R. Bortfeldt, J. Tetens, and G. Brockmann. Genome-wide association study for somatic cell score in German Holstein cattle.

22nd Annual meeting of the German Society of Animal Production (DGFZ), 12-13 September 2012. Halle / Saale, Germany. Abdel-Shafy, H., R. Bortfeldt, J. Tetens, and G. Brockmann. Genome-wide association studies for somatic cell score in Holstein cattle.

Dairy Cattle Symposium, 29 November 2012. Berlin, Germany. Abdel-Shafy, H. and G. Brockmann. Identification of chromosomal regions associated with somatic cell score in German Holstein cattle.

Physiology and Genomics of Mastitis - Experimental dissection of host-pathogen interaction in the udder, 31 October – 2 November 2012. Evangelische Akademie Tutzing, Germany. Abdel-Shafy, H., R. Bortfeldt, and G. Brockmann. Identification of SNPs and chromosomal regions in chromosome 5 associated with somatic cell score (SCS) in German Holstein.

4th Annual Meeting of NGFN-Plus and NGFN-Transfer in the Program of Medical Genome Research, 26-28 September 2011. Urania, Berlin, Germany.

PEER-REVIEWING

Journal name
(number of
manuscript / year)

Livestock Science (1/2014), Journal of Dairy Science (1/2015), PLOS ONE (1/2015), BMC Veterinary Research (1/2015), World Rabbit Science (1/2017), WCGALP (3/2018), Animal Genetics (2/2018), Journal of Genetic Engineering and Biotechnology (1/2020), BMC Genomics (1/2021)

Editorial activities

Guest Editor of Buffalo Genetics and Genomics, Frontiers in Genetics and Frontiers in Veterinary Science

REFERENCES

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