

**Amr T. M. Saeb, Ph.D.**

*Molecular Phylogenetics and Population Geneticist*

**PERSONAL INFORMATION**

**Date of Birth:** November 15TH, 1972.

**Nationality:** Egyptian

**Marital status:** Married.

**Current Address:** Riyadh, Kingdom of Saudi Arabia

**Mobile number**: +966 566263979

**Email addresses:** dr.amrsaeb@gmail.com, saeb.1@osu.edu

**Linkedin profile:** <https://www.linkedin.com/in/amr-t-m-saeb-49378137/>

**Research gate profile:** <https://www.researchgate.net/profile/Amr_Saeb>

**EDUCATION**

**2006 Ph.D.** *Molecular Phylogenetics and Population Genetics,* The Ohio State University, Columbus, Ohio, USA

**2000 Master in Science**, *Microbial Genetics, Ain Shams University, Cairo, Egypt*

**1994 Bachelor in Science**, *Genetics,* Ain Shams University, Cairo, Egypt.

**INTRODUCTION**

Dr. Amr T. M. Saeb a faculty member College of Medicine, King Saud University, KSA. Dr. Saeb earned his Ph.D. (Molecular Phylogenetics and Population Genetics) from The Ohio State University, the United States of America in 2006. Dr. Saeb has been in the research and teaching profession for more than 25 years in Egypt, the United States of America then in the Kingdom of Saudi Arabia. Dr. Saeb's research interest is focused on but not limited to Molecular Genetics, Diabetes Genetics, bacterial pathogenomics, and virulence, molecular pathology, and host-pathogen interactions

**PROFESSIONAL EXPERIENCE**

**January 2017- Present**

**(Head)** Microbial Genetics Department**,** Strategic Center for Diabetes Research

 King Saud University**,** Riyadh, KSA

**January 2015 to Present**

**(Head)** Genetics and Microbiology DepartmentStrategic Center for Diabetes Research

King Saud University**,** Riyadh, KSA

**February 2014 to Present**

**Editor-in-Chief (EIC) of IGE**

SOP Transaction on Inheritance and Genetic Engineering

**February 2014 to Present**

**Editorial Board Member,** Journal of Evolutionary Bioinformatics

**July 2009- Present**

Assistant Professor College of Medicine, King Saud University

Riyadh, KSA

**July 2009- 2015**

**(Head)** Bioinformatics and Biotechnology Dept.Strategic Center for Diabetes Research

King Saud University**,** Riyadh, KSA

 **July 2009 to Present**

 **(In-charge)** Microbiology Laboratory Strategic Center for Diabetes Research

King Saud University**,** Riyadh, KSA

**July 2014 to Present**

 Editorial Board Member Advance in Life Science and Health

**July 2014 to Present**

Editorial Board Member SOP Transaction on Inheritance and Genetic Engineering

**March 2007- July 2009**

**Lecturer** Molecular Biology and Evolution Department of Molecular Biology

Genetic Engineering and Biotechnology at Minofia University, Egypt

**January – March 2007**

Post-Doctoral Researcher, “Population Genetics and Phylogeny of Entomopathogenic,

 Nematodes”. Department of Entomology. The Ohio State University, Columbus, Ohio, USA

**2003-2004**

Teaching Assistant, Entomology & Plant Pathology Departments,

The Ohio State University, Columbus, Ohio, USA

**2000– 2007**

Assistant Lecturer, Genetic Engineering and Biotechnology Research, Institute (GEBRI),

Minofia University, Minofia, Egypt

**1998- 2000**

Demonstrator, Genetic Engineering and Biotechnology Research, Institute (GEBRI),

Minofia University, Minofia, Egypt

**1996 – 1998**

Research Assistant, National Research Center, Dokki, Cairo, Egypt

 **1996-1998**

Teaching Assistant, General Biology and Genetics Course, High Agriculture Institute,

Ministry of Higher, Education, Shoubra Elkhemma, Cairo, Egypt

 **1994- 1996**

Research Assistant, Faculty of Agriculture,

The Environmental Mutagenesis Research Unit (EMRU)

Ain Shams University

**HONORS & AWARDS**

**Albert Nelson Marquis Lifetime Achievement Awardee:**

Marquis Who’s Who in the World® Prestigious award for the hard work and dedication (16 May 2017)

**Marquis Who’s Who in the World® 2015 (32nd Edition):**

For outstanding achievements Marquis Who’s Who America’s Biographer since 1899 [www.marquiswhoswho.com](http://www.marquiswhoswho.com)

**The Honor Society of Phi Kappa Phi:** Life Time Membership by Election of Ohio State University, USA

**The Egyptian Academy of Scientific Research Grant:**

Best Graduate Student from The Egyptian Ministry of Higher Education Cairo, Egypt

**PhD Scholarship in Ohio State University, USA:**

The Egyptian Ministry of Higher Education, Cairo, Egypt

**SCIENTIFIC SOCIETIES MEMBERSHIP**

The Society of Nematology

The Society of Parasitology

The Society of Invertebrate Pathology

The American Society of Plant Pathology

The Wooster Area Molecular Biology, Association, Wooster, Ohio, USA.

The Egyptian Society of Genetics

**SCIENTIFIC PUBLICATIONS**

1. **Amr T. M. Saeb**, Khalid A. Al-Rubeaan2 Samir Ouizi2, Hesse Al-brahim1, Mohthash Mothamil1, Udaya Raja G. K3, Balavenkatesh Mani 3, Amira Youssef2 and Hamsa T. Tayeb. Comparative investigation of the Diabetic foot ulcer microbiome (In preparation)(submitted, accepted and presented at the 29th ECCMID, the European Congress of Clinical Microbiology and Infectious Diseases, which took place in Amsterdam, Netherlands, 13 – 16 April 2019.
2. **Saeb ATM,** Al-Rubeaan KA, Aldosary K, Udaya Raja GK, Mani B, Abouelhoda M, Tayeb HT. Relative reduction of biological and phylogenetic diversity of the oral microbiota of diabetes and pre-diabetes patients. Microb Pathog. 2019 Jan 6;128:215-229. doi: 10.1016/j.micpath.2019.01.009. [Epub ahead of print].
3. Al-Rubeaan K1, Musambil M, Wakil SM, Al-Saud H, **Saeb ATM**, Al-Qasim S, Al-Naqeb D. Design of Arab Diabetes Gene-Centric Array (ADGCA) in population with an epidemic of Type 2 Diabetes: A population specific SNP evaluation. Gene. 2018 Jul 15;663:157-164. doi: 10.1016/j.gene.2018.04.019. Epub 2018 Apr 22.
4. **Amr T M Saeb.** Current Bioinformatics resources in combating infectious diseases. Bioinformation 14 (1), 31-35. 2018 Jan 31.
5. [**Saeb ATM**](https://www.ncbi.nlm.nih.gov/pubmed/?term=Saeb%20ATM%5BAuthor%5D&cauthor=true&cauthor_uid=29204271)**,**[Al-Rubeaan KA](https://www.ncbi.nlm.nih.gov/pubmed/?term=Al-Rubeaan%20KA%5BAuthor%5D&cauthor=true&cauthor_uid=29204271), [Abouelhoda M](https://www.ncbi.nlm.nih.gov/pubmed/?term=Abouelhoda%20M%5BAuthor%5D&cauthor=true&cauthor_uid=29204271), [Selvaraju M](https://www.ncbi.nlm.nih.gov/pubmed/?term=Selvaraju%20M%5BAuthor%5D&cauthor=true&cauthor_uid=29204271), [Tayeb HT](https://www.ncbi.nlm.nih.gov/pubmed/?term=Tayeb%20HT%5BAuthor%5D&cauthor=true&cauthor_uid=29204271). Genome sequencing and analysis of the first spontaneous Nanosilver resistant bacterium Proteus mirabilis strain SCDR1. [Antimicrob Resist Infect Control.](https://www.ncbi.nlm.nih.gov/pubmed/29204271) 2017 Nov 23;6:119. doi: 10.1186/s13756-017-0277-x. eCollection 2017.
6. **Amr T.M. Saeb**, Mohamed Abouelhoda, Manojkumar Selvaraju, Sahar I Althawadi, Maysoon Mutabagani, Mohammad Adil, Abdullah Al Hokail and Hamsa T Tayeb. The Use of Next-Generation Sequencing in the Identification of a Fastidious Pathogen: A Lesson From a Clinical Setup. Evolutionary bioinformatics online 12:1-15 · February 2017.
7. **Amr T. M. Saeb**, Mohamed Al-Derwish, Samir Ouzi and Khalid A. Al-Rubeaan. A Case of ***Arcanobacterium haemolyticum*** Osteomyelitis and Cellulitis Diagnosed via Partial 16s rRNA Sequencing **(In preparation).**
8. Khalid A. Al-Rubeaan, **Amr T. M. Saeb**, Dhekra M. AlNaqeb, Hamed M. AlQumaidi, Turki A. AlMogbel. The bacterial contamination rate of glucose meter test strips in the hospital setting. Saudi medical journal 37(9):985-995 · August 2016
9. **Amr T. M. Saeb** and Dhekra Al-Naqeb. The Impact of Evolutionary Driving Forces on Human Complex Diseases: A Population Genetics Approach. Scientifica. Volume 2016 <http://dx.doi.org/10.1155/2016/2079704>
10. **Amr T. M. Saeb**. Presence of Bacterial Virulence Gene Homologues in the dibenzo-p-dioxins degrading bacterium Sphingomonas wittichii. Bioinformation 12(4):241-248 · July 2016.
11. Usman Latif, Khalid Al-Rubeaan and **Amr T.M. Saeb**: A review on Antimicrobial Chitosan-Silver Nanocomposites: A Roadmap Toward Pathogen Targeted Synthesis. International Journal of Polymeric Materials and Polymeric Biomaterials. Volume 64, Issue 9, 2015. DOI: 10.1080/00914037.2014.958834.
12. **Amr T. M. Saeb** and Satish Kumar David: Comparative Estimation of Genetic Diversity in Population Studies using Molecular Sampling and Traditional Sampling Methods. Bioinformation 10(6): 347-352
13. Rezk El-baz, Sabah Farouk, **Amr Tag Eldin Saeb** and HanyEzat: Endothelial nitric oxide synthase gene polymorphism (G894T) in diabetes mellitus in Egypt. The Egyptian Journal of Hospital Medicine, 38:83-93.
14. Bai, X., **Saeb A. T.,** Michel, A. and Grewal, P. S.: Isolation and characterization of microsatellite loci in the entomopathogenic nematode Heterorhabditisbacteriophora". **Molecular Ecology Resources 9, pp.207-209.**
15. Amr T. M. Saeb and Parwinder S. Grewal: Intraspecific genetic variation in the major sperm protein gene of the entomopathogenic nematode Heterorhabditisbacteriophora. Int. J. Nematol. 17, pp. 187-198.
16. Abdel-Salam, M.S., Abd El-Salam, A.Z., Ibrahim, S.A., Nivien A. Abosereh and Saeb, A.T.M.: Resistance Plasmids of Indigenous Pseudomonas in Egypt. Journal of Applied Sciences Research, 3 (9): 873-878, 2007.
17. Ganpati. B. Jagdale, Amr T. M. Saeb, Nethi Somasekhar, and Parwinder S. Grewal: Genetic variation and relationships between isolates and species of the entomopathogenic nematode genus Heterorhabditis deciphered through isozyme profiles. Journal of Parasitology: Vol. 92, No. 3, pp. 509–516.
18. Amr T.M. Saeb and Parwinder S. Grewal: Noval molecular markers for the identification of the species of entomopathogenic nematode Heterorhabditis. Journal of Nematology 36 (3), 344-344.
19. **Amr T. M. Saeb** and Parwinder S. Grewal: NADH Dehydrogenase subunit4 is not an ideal target for phylogeny reconstruction or genetic differentiation in Heterorhabditis SOP Transactions on Inheritance and Genetic Engineering). Pub. Date(Web): 2014-12-11
20. **Amr T. M. Saeb** and Parwinder S. Grewal: NADH Dehydrogenase subunit4 is not an ideal target for phylogeny reconstruction or genetic differentiation in Heterorhabditis SOP Transactions on Inheritance and Genetic Engineering). Pub. Date(Web): 2014-12-11.
21. **Amr T. M. Saeb** and Parwinder S. Grewal: Phylogenetic and Population Genetic Structure of the Yellow Spotted Longicorn Beetle Psacothea Hilaris Advances in Life Sciences and Health. Pub. Date (Web): 2014-11-27 <http://www.scipublish.com/journals/ALSH/recent>
22. **Amr T. M. Saeb**, Satish Kumar David and Hissa Al-Abrahim: In Silico detection of Virulence gene homologues of the Human Pathogen Sphingomonas spp. Evolutionary Bioinformatics, 2014:10, 229-238. doi: 10.4137/EBO.S20710.
23. **Amr T.M. Saeb**. Heat Shock Protein Hsp70 Multigene Family as a New Genetic Target for The Differentiation and Identification of Entomopathogenic Nematodes (Rhabditida: Heterorhabditidae). Advances in Life Sciences and Health. Pub. Date (Web): 2014-09-02. <http://www.scipublish.com/journals/ALSH/recent>
24. **Amr T.M. Saeb**, Ahmad S. Alshammari, Hessa Al-Brahim, and Khalid A. Al-Rubeaan: Production of Silver Nanoparticles with Strong and Stable Antimicrobial Activity against Highly Pathogenic and Multidrug Resistant Bacteria. Scientific World Journal, Volume 2014, ID 704708, <http://dx.doi.org/10.1155/2014/704708>.
25. [Khalid Al-Rubeaan](http://www.sciencedirect.com/science/article/pii/S0378111913001935), [Khalid Siddiqui](http://www.sciencedirect.com/science/article/pii/S0378111913001935) , [**Amr T.M. Saeb**](http://www.sciencedirect.com/science/article/pii/S0378111913001935) , [Nyla Nazir](http://www.sciencedirect.com/science/article/pii/S0378111913001935) , [Dhekra Al-Naqeb](http://www.sciencedirect.com/science/article/pii/S0378111913001935) , [Sarah Al-Qassim](http://www.sciencedirect.com/science/article/pii/S0378111913001935): ACE I/D and MTHFR C677T polymorphism is significantly associated with type 2 diabetes in Arab ethnicity: A meta-analysis. Gene, <http://dx.doi.org/10.1016/j.gene.2013.02.017>.

**EDITOTIALS**

1. **Amr TM Saeb.** “Microbiome Research: A Change of Mentality”. *EC Microbiology* 14.4 (2018): 167.
2. **Amr TM Saeb. “**Oral Microbiome and Type 2 Diabetes Mellitus: The Enigmatic Reciprocal Relationship”. *EC Diabetes and Metabolic Research 2.1 (2018): 1-2.*
3. **Amr TM Saeb.** “The Scarcity of Professional Athletes with Type 2 Diabetes: A Predictive Genomics Approach”. *CPQ Medicine, 3(1), 01-04.*
4. **Amr TM Saeb.** “Type 2 Diabetes and More Gene Panel: A Predictive Genomics Approach for a Polygenic Disease”. EC Diabetes

**Book Chapters:**

1. Satish Kumar David, **Amr T. M. Saeb**, Mohamed Rafiullah and Khalid Rubeaan. Classification Techniques and Data Mining Tools Used in Medical Bioinformatics. In “Big Data Governance and Perspectives in Knowledge Management” editor: Sheryl Kruger Strydom and Moses Strydom. IGI Global. Hershey PA, USA. pp 105-126.

**POSTER AND ORAL PRESENTATIONS**

1. **Amr Saeb** et al., Comparative investigation of the Diabetic foot ulcer microbiome. the 6th International Conference of Endocrinology and Diabetes (6th ICED).  Friday 8th  February, 2019 Riyadh, KSA
2. **Amr Saeb** et al., Oral microbiome investigation during glycemic level progress toward diabetic status. **28 th ECCMID,22 April 2018, Madrid, Spain.**
3. **Amr Saeb,** Role of Bioinformatics in fighting infectious diseases. Nov. **2017 Welcome Genome Campus, UK.**
4. Genome sequencing and analysis of the first documented spontaneous nanosilver resistant bacterium Proteus mirabilis SCDR1. **Amr Saeb**, Khalid Al-Rubeaan1, Mohamed Abouelhoda, Manojkumar Selvaraju, Hamsa Tayeb. 27th ECCMID,22 April **2017**, **Vienna, Austria**
5. Genetic Susceptibility to Type 2 Diabetes and Obesity: Concepts, Methodologies and Outcomes. 3rd Annual Gulf Obesity Surgery Society Meeting 2015, GOSS2015 conference. 14 December **2015**, Ritz Carlton Hotel, **Saudi Arabia**
6. Prevalence of IL28B Gene Variants Among The Saudi Population and A Guide to Interferon Alpha Treatment in Saudi HCV Patients. Target Validation using Genomics and Informatics. EMBL-WELLCOME genome campus conference. **8-10 December, 2015 Hinxton, Cambridge, UK**
7. Characterization from Escherichia hermannii, Citrobacter sedlakii and Pseudomonas putida Isolates. BIT’S 4th Annual World Congress of Microbes-2014 (WCM -2014). SBI-2: Best Clinical Practice on Severe Bacterial Diseases. **June27-29, 2014 Dalian, China**
8. The role of Bioinfomatics in Human Exome studies. 4th of March, 2010, Riyadh Diabetes Basic Research Group, King Saud University, **KSA**
9. Nanotechnology role in Single molecule DNA, sequencing. 4th of February, 2010, Riyadh Diabetes Basic Research Group, King Saud University, **KSA.**
10. **Saeb, A.\*** Jagdale, G. B. &Grewal, P. S. Investigation of the genetic diversity, phylogeny, and sub-species structuring in the entomopathogenic nematode, Heterorhabditisusing random amplified polymorphic DNA, partial ribosomal DNA, cytochrome oxidase subunit 1 and major sperm protein sequence analysis. OARDC Annual Conference, April 20, 2006. [First Place Poster Competition], **Columbus, Ohio, United States of America.**
11. **Saeb, A**.\* & Grewal, P. S. Investigation of the metapopulation structure in Bursaphelenchusconicaudatus (Nematoda: Aphelenchoididae) on Japanese Islands. OARDC Annual Conference, April 21, 2005. [Poster], Columbus, **Ohio, United States of America**.
12. **Saeb, A.\*** & Grewal, P. S. "Novel molecular markers for the identification of nematodes", OARDC Annual Conference, April 29, 2004, Wooster, Ohio, **United States of America**.

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| **LECTURES CONDUCTED** |
| 2009 to present Regular presentations and lectures of the following Academic activities at the University Diabetes Center,with audiences from different specializations, coming from inside and outside of Saudi Arabia.* Scietific Journal Activity
* Main Presentation
* Riyadh Diabetes Club
* Outside Riyadh Lectures

**MAJOR WORKSHOP ATTENDED** |
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| --- | --- |
|  **2006** | Workshop on Molecular Evolution. Marine Biological Laboratory at Woods Hole, MA., USA **(The house of Nobel Prize winners).** |

**AREAS OF EXPERTISE****Teaching*** Genetics Research
* General Biology
* Advanced Microbial Genetics
* Biochemical Genetics
* Molecular Genetics
* Microbial Cytology
* Genetic Engineering
* Bacterial Physiology Protein Sequencing (B1-81) and Advanced Molecular Genetics
* Fungal Molecular Genetics, Systematics and Phylogenetics
* Advanced Topics of Fungal Biology
* Molecular Identification and DNA Methods Laboratory
* Genetic Engineering and Biotechnology Research
* Nematology: Experienced in standard nematology techniques.
* Molecular Phylogenetics and population genetics.
* Experienced with DNA sequencing, plasmid manipulation techniques.
* Latest methods of Phylogenetic analysis of DNA and proteins, such as PAUP\*, MEGA, Modeltest, ProtTest, ClustalX and W, Mr.Bayes, DnaSP, POPGEN, LAMARC and Others.

**Research*** Bacterial pathogenesis and virulence
* Molecular pathology
* Comparative genomics
* Bioinformatics: DNA, RNA and Protein sequence analysis, functional and positional gene annotation, structural analysis, sequence alignments and many others
* Human Oral Microbiome Analysis
* Pyrosequencing Technique.
* Microbiology: Experienced in standard microbiology techniques

Molecular Biology: Experienced in standard techniques such as DNA manipulation, primer design, PCR, electrophoresis, southern blotting.**Scientific Writing*** Editor In Chief
* Editorial Board
* Scientific Reviewer
* Scientific Writing & Publications
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