CURRICLUM VITAE

Personal information:			
Name	:	Wael Sayed Mohammed Ahmed El-Araby	
Nationality	:	Egyptian	
Egypt Number	:	0020106220193	
Email Current Job:	: :	biowael@yahoo.com Wael_Sayed@agr.asu.edu.eg Researcher in the Agricultural Research Center –Plant Pathology Institute He also serves at the Presidential Affairs Office of the Ministry, Minister's Office, Government District, New Administrative Capital, Arab Republic of Egypt	
Address of Work		9 Cairo University St. ARC –Giza –Egypt Tel. 0235724893 – Fax. 0237766451	

Brief Overview:

Senior scientific researcher with a **PhD in Agricultural Virology**, specializing in **plant virus diagnostics, molecular characterization, quarantine-related viral pathogens, and integrated disease management**. Over **19 years of experience** at the Plant Pathology Research Institute (ARC), with extensive hands-on expertise in **PCR/qPCR, ELISA, sequencing, bioinformatics, and genome submission to NCBI GenBank**. Proven leadership in research units, international collaboration, accreditation assessment, and applied agricultural problem-solving.

https://orcid.org/0009-0008-7945-7447
https://www.researchgate.net/ profile/Wael-El-Araby?ev=hdr_ xp
https://scholar.google.com/ citations?hl=en&user= fAirkvwAAAAJ
https://www.arc.sci.eg/staff/2731

Education:

Ph.D. in Agricultural Virology (2024)
Ain Shams University of Agriculture
Thesis Title: Biological and Molecular Characterization of Tomato Chlorosis Virus in Egypt

Master's Degree in Genetic Engineering and Biotechnology (2008)
Al-Sadat City University
Title: Development and Standardization of Rapid and Sensitive Viral Detection Methods Based on Molecular Biology for the Diagnosis of Some Potato Viruses

Bachelor of Science in Agricultural Science (Plant Biotechnology) (2003)
Faculty of Agriculture, Al-Azhar University

Grade: Highly Very Good

Career Progression:

2003 - Present:
Director of the Molecular Biology and Biotechnology Unit, Plant Pathology Research Institute, Department of Viruses.

2011 - 2013:
Lecturer at King Faisal University, Faculty of Agricultural and Food Sciences, Kingdom of Saudi Arabia.

2011 - 2015:
Director of the Plant Pests and Diseases Unit, Department of Plant Protection, King Faisal University, Faculty of Agricultural and Food Sciences, Kingdom of Saudi Arabia.

2011 - 2017:
Research Center for Palm and Dates, Faculty of Agricultural and Food Sciences, Kingdom of Saudi Arabia.

2009 - 2010:
Inspector at Agricultural Quarantine, Cairo International Airport.

2005 - 2011:
Chemist at Al-Rayan Hospital Laboratory in Maadi (part-time).

Training Courses

- Modern biotechnological techniques for combating plant diseases (Plant Pathology Research Institute).
- Conducted courses on controlling red palm weevil.
- Utilization of molecular biology in identifying pathogenic agents (Plant Pathology Research Institute).
- Scientific foundations for trainer preparation (Plant Pathology Research Institute).
- Fundamentals of nanotechnology and its applications in agriculture (Central Laboratory for Food and Feed).
- Basics of bioinformatics and biological data analysis (Genetic Engineering Research Institute).
- Laboratory qualification for ISO 17025 accreditation.
- Potato tuber propagation and integrated disease management techniques for virus-free seedlings at HAAS Research Institute, Harbin, China.
- Laboratory safety protocols in Saudi Arabia.
- Implementation of quality procedures in laboratories.
- ISO 17025:2005 & ISO 9001:2008 laboratory management standards.
- Transformation using Agrobacterium: International workshop.
- Tissue culture laboratory at Al-Zahra Park.
- Detection of phytoplasma diseases in various crops.
- Identification of viruses affecting tomato plants.

- Advanced applications of nanotechnology in plant disease management and gene transfer to plants.
- International scientific publishing.
- Combatting major diseases affecting vegetable export crops in Egypt – Arab Organization for Agricultural Development.
- Modern methods for controlling corn and sugar crop diseases amid climate change – Arab Organization for Agricultural Development.
- Professional strategies for managing key diseases of strategic export fruit crops amid climate fluctuations in Egypt – Arab Organization for Agricultural Development.
- Management of major wheat diseases under global climate change – Arab Organization for Agricultural Development.
- Informed management of diseases affecting leguminous, ornamental, onion, and garlic crops in Egypt that impact their export – Arab Organization for Agricultural Development.
- Practical approach to DNA sequencing and bioinformatics – Egyptian-American Project, Tucson University.
- Practical applications for analyzing polymerase chain reaction (PCR) interactions as an assistant trainer – Egyptian-American Project, Tucson University.
- Advanced molecular techniques and practical approaches for DNA analysis Egyptian-American Project, Tucson University.
- The 11th Annual Ain Shams University International Conference, 10-11th May 2023 Cairo, Egypt.
- Regional Infectious Substance Shipment Training Course held online from 9 to 13 February 2025, organized by the Food and Agriculture Organization of the United Nations (FAO).
- Training program of Project Management Professional (PMP Exam Prep.) Covering All the Project Management Knowledge Areas. 21-25 Sep. 2025 COURSE ID: 1246 PDUs: 35.
- The outstanding Contribution at the 9th International Scientific Conference of the Egyptian Society of Virology.
- Training program of Conditions for the use of the JAS-AU accreditation symbol, the combined accreditation symbol, and ILAC MRA/IAF MLA mark 25th Nov. 2025
- Training program of Guidelines for the Use of the Jordan Accreditation System Logo and Symbol – 2024 25th Nov. 2025
- Seminar on Forestry Addressing Climate change for BRI countries sponsored by the Ministry of Commerce and organized by the National Academy of Forestry and Grassland Administration of China from November 13, 2025, to November 26, 2025, in Beijing, People's Republic of China.
- Completed and obtained the Training of Trainers (ToT) Certification – 2025
- **Analyzing Data with MS Excel (Fundamental – Online) New** *Horizons* — **March 29, 2025**
- **Microsoft Office Excel Tips & Tricks (Online)** *New Horizons* — **March 22, 2025**

- **DevOps for Business: Driving Innovation and Agility** *New Horizons* — **March 18, 2025**
- **Effective Software Testing Practices** *New Horizons* — **March 26, 2025**
- **Graphics with Artificial Intelligence (AI)** *New Horizons* — **March 19, 2025**
- **How to Leverage AI for Business Growth** *New Horizons* — **March 5, 2025**
- **The Copilot Revolution** *New Horizons* — **March 12, 2025**
- **Certificate of Recognition – 1st International Seminar on Advanced ioinformatics** *Informatix BioLabs Pvt. Ltd.* — **May 4, 2025**

Scientific Associations

- Member of the Board of Directors of the Egyptian Virology Society.
- Member of the Egyptian Plant Pathology Society.
- Member of the organizing committee for conferences of the Egyptian Virology Society.
- Member of the organizing committee for pests and diseases affecting plants, particularly date palms.
- Consultant at Al-Yasin Company for Date Palms in Egypt.
- Consultant at Al-Badr Company for Plant Disease Control.
- Member of the Pesticides Committee.
- Technical Assessor at JAS-AU

Scientific Seminars and Conferences

- Third Virology Conference - Egyptian Virology Society, 2010: Current Challenges from Viral Diseases.
- Second Virology Conference - Egyptian Virology Society, 2008: Emerging and Incoming Viral Diseases: A Threat to Human, Animal, and Plant Health.
- Seminar on pathological issues affecting protected crops and their control methods - Egyptian Plant Pathology Society, 2006.
- Delivered a lecture and presented a poster at the First Virology Conference - Egyptian Virology Society, 2004: Pathological Issues and Viral Diseases.
- Seminar on zoonotic viral diseases - Egyptian Virology Society, 2002.

Computer Skills

- Holder of a valid computer driving license.

Research Projects:

- Participated in a project on the response indicators of antibodies and DNA polymorphism among local chicken strains in Saudi Arabia and other commercial and exotic chicken breeds.
- Contributed to a molecular identification project for the biotype of the whitefly (*Bemisia tabaci*) inhabiting the Eastern Province of Saudi Arabia.
- Involved in producing a diagnostic kit for the Yellow Dwarf Virus (CYSDV) in cucurbits

through gene expression of the coat protein.

- Engaged in a project on the molecular biodiversity of Yellow Leaf Curl viruses affecting tomatoes in Saudi Arabia.
- Participated in a project on phytoplasma disease in date palms in Saudi Arabia.
- Principal researcher in a project characterizing certain date palm varieties (*Phoenix dactylifera* L.) associated with palm wilt disease in Al-Ahsa Oasis, Saudi Arabia (P-I).
- Contributed to a project aimed at improving sweet potato production (Ipomoea batatas) in the Middle East through next-generation sequencing (whole genome) of viral pathogens (MERC).
- Participated in a project assessing the impact of betasatellite on genetic resistance to the *Yellow Leaf Curl Virus* in Egypt.
- Conducted doctoral research on the interaction between coat proteins of viruses infecting citrus (CP-CTV) and their hosts in the People's Republic of China during the COVID-19 pandemic.
- **Efficacy Evaluation of Fungicides for the Control of Leaf Spot Disease in Oilseed Crops (Sunflower and Sesame) in Sharkia Governorate** (P-I).

Academic Supervision

Supervision of master's Theses:

- Supervised and implemented special studies for the master's thesis of Esraa Mohamed Mahmoud Halawa, Faculty of Science, Benha University.

Assisting in Supervision of Doctoral Theses:

- Assisted in supervising and implementing special studies for the doctoral thesis of Reham Gamal El-Rahmani, Faculty of Agriculture, Cairo University.
- Assisted in supervising and implementing special studies for the doctoral thesis of Aya Hussein Mustafa El-Turki, Faculty of Agriculture, Ain Shams University.

Molecular Characterization & Genome Sequencing of Plant Viruses

- Successfully isolated, molecularly characterized, and submitted multiple plant virus genome sequences to **NCBI GenBank**, including **Tomato Yellow Leaf Curl Virus (TYLCV)** from different hosts and regions, **Tomato Chlorosis Virus (ToCV)** (full genome), and **Watermelon Yellow Dwarf Virus (WYDV), etc..**

International Research Experience

- **PhD Research Preparation (2017–2020) Huazhong Agricultural University (HZAU), Wuhan, China**
- Undertook advanced doctoral research preparation in **plant virology and molecular biology**.
- Acquired extensive hands-on experience in **protein–protein interaction studies**, including **Yeast Two-Hybrid (Y2H)** and **Co-Immunoprecipitation (Co-IP)** techniques.
- Performed **gene expression analysis** using molecular and biochemical approaches.
- Returned to Egypt during the **COVID-19 pandemic**.

Technical & Laboratory Skills

Molecular Biology & Biotechnology

- Northern, Southern, and Western blotting, PCR, RT-PCR, IC-RT-PCR, and Real-Time PCR (qPCR). Molecular cloning and plant genetic transformation, Gene expression analysis, Protein–protein interaction, analysis and prediction, Yeast Two-Hybrid (Y2H), Bimolecular Fluorescence Complementation (BiFC)

Immunological & Serological Techniques

- Direct and Indirect ELISA, Microbial detection techniques

Plant Pathology & Microbiology

- Virology and Bacteriology, Microbial counting techniques

Medical & Clinical Laboratory Analysis

- Hematology (CBC, ESR, PT, PTT, etc.), Serology, Bacteriology, Parasitology (urine and stool analysis), Blood chemistry

Published Scientific Research:

- **El-Araby, W. S.,** Ibrahim, A. I., Hemeida, A. A., Amal M. Hussein, Soliman, A. M., El-Attar, A. K., & Mazyad, H. M. (2009). Biological, serological, and molecular diagnosis of three major potato viruses in Egypt. International Journal of Virology, 5(2), 77-88.
- Abbas, M. Al-Azab, Khalid M. Al-Ghamdi, Khalid Al-Hudaib, Ahmed A. Zaituon, Mohamed A. Shaheen, & **Wael El-Araby.** (2013). Morphological and molecular identification of the dengue fever vector Aedes aegypti (Diptera: Culicidae) in Jeddah Governorate, Saudi Arabia. Journal of Pure and Applied Microbiology, 7(2), 1391-1400.
- Alhudaib, K., Rezk, A., & **Alaraby, W**. (2013, June). Molecular biodiversity of tomato yellow leaf curl disease associated viruses in Saudi Arabia. In PHYTOPATHOLOGY (Vol. 103, No. 6, pp. 4-4). 3340 pilot knob road, st paul, mn 55121 usa: amer phytopathological soc.
- K. Al-Hudaib, **W. Al-Araby,** & A. Rezk. (2014). Molecular characterization of tomato yellow leaf curl disease-associated viruses in Saudi Arabia. International Journal of Virology, ISSN 1816-4900/DOI:10.3923/ijv.2014.
- Babiker M. A. Abdel-Banat, Hamadttu A. F. El-Shafie, Khalid A. Al-Hudaib, **Wael S. El-Araby,** & Mohammed R. Al-Hajhoj. (2018). Molecular characterization and tissue expression analysis of five genes for chitinase in the red palm weevil, (Coleoptera: Curculionidae).
- **El-Araby, W. S.,** Al-Attar, A. K., Othman, B. A., & Eldougdoug, K. A. (2024). Frequency incidence of tomato chlorosis virus and tomato yellow leaf curl virus affecting tomato plants. Arab Universities Journal of Agricultural Sciences.

- Rehab A. Dawoud, **Wael S El-Araby,** & Khalid A El Dougdoug (2024). Virus-like particles: Nanoparticles for targeted drug delivery. Journal of Virological Sciences.
- El-Dougdoug, K. A., El-Turki, A. H., **El-Araby, W. S.,** Sofy, A. R., Mousa, A. A. E., & Abbas, A. (2024). Effect of CMV infection on basil active ingredients used to treat HCV patients. Journal of Virological Sciences, 12(2), 26-31.
- El-Rahmany, R. G., Abdelhadi, A. A., El-Attar, A. K., **El-Araby, W. S.,** & Abdallah, N. A. (2025). Genetic Diversity of Tomato Yellow Leaf Curl Virus Isolates and their Associated Beta-Satellite in Tomato Fields in Egypt.
- Halwa, E. M., & **El-Araby, W.S.** (2025). Amini review on exploring the role of beneficial viruses. Journal of Virological Sciences, 13, 28-32