Dr.Atheel Najib Yousef Jibreal Habash
Doctor of Natural Sciences (Dr.rar.nat.),
Biology, Chemistry and Pharmacy Division,
Freie Universität Berlin, Berlin, Germany.
PhD. Plant Physiology / Plant Ecophysiology,

Birthday: 27th of Jun 1977.
Religion: Cristian.
From: Qaraqosh, Nineveh, Iraq.
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Lecturer at UoD, College of Science.
Biology Department.

Teaching Philosophy:-

My teaching interest is concentrated on plant physiology/ ecophysiology as well as ecological, botanical, pollution, and plant biotechnology topics. Much of what I teach is integrated directly with my research field and interest. I enjoy teaching and sharing, discussing with students my ideas about the diversity of life contained in the natural world. I want to build awareness in students of how all living things are interdependent on one another and why intricate relationships among different species have evolved. I believe that biology students need to have a broad view of how all facets of biology interrelate with one another. The fields of plant physiology/ecophysiology and ecology are excellent means for helping students to integrate much of what they learn in general biology (*e.g.,* morphology, anatomy, reproductive biology) into one coherent picture. For example, students can come to recognize that the basic anatomical, morphological, reproductive, and physiological differences that exist between major groups of organisms like plants, and fungi are a reflection of their strategies for obtaining food (e.g., autotrophs vs. heterotrophs).

A working partnership between the professor and student requires active participation in the process of learning by both parties. Students are usually receptive to knowing if they are properly engaged by the instructor in activities that make them critically think about the subject matter. My style of teaching employs a number of strategies, in order to accomplish this task. I utilize lecturing, discussion groups, laboratory activities, experiments, films, and a lot of personal attention on my part to meet the educational needs of the student. When I lecture, I like to use analogies and examples, including

props, to get facts, ideas and concepts across to the students. I believe that this is an effective teaching method because it makes the subject material more accessible to students by starting them off with something they are already familiar with.

As I believe that undergraduate research projects are great tools for helping students to gain a firm understanding of the "scientific method" and utilize critical thinking skills in developing conclusions based on available data and tested hypotheses rather than speculation. I believe that research is a creative process of discovery and that the scientific method is one way that we learn more about ourselves and the natural world. I think that these experiences can be critical in helping a student develop positive attitudes toward science and motivating them to become lifelong learners.

Research Objectives (Interests):-

Research is an integral part of my academic experience. It enhances my knowledge base and adds to my general understanding of complex subjects. Research can forge much-needed connections between disciplines, and it enriches the educational experience for students. Topically, my research addresses broad questions about plant (especially roots) growth and development under stressed environmental and soil conditions. Plant physiology/ ecophysiology study's the complex interactions between plants and their environment (biotic and abiotic factors). It focuses on physiological (metabolism) and molecular mechanisms (genetic factors) that enable plants to cope with flooding stress and/or dense, competitive environments, drought and nutrition. These stress conditions induce changes in plant growth and metabolism, like root architecture changes helping plants to adapt to high water levels or to outcompete neighbors in dense vegetation as examples.

My interest is concentrated on understanding the plant mechanism used for changes in its root's architecture and metabolism under the alkaline and acid soils (soils that hold un-soluble unavailable nutrients for plant uptake), toxic and non-toxic nanoparticles soil content, and the effect of these changes on plant growth and development, this could lead to enabling the plant internally for better growth development and yield under such conditions.

Education:-

Doctor of Natural Sciences (Dr.rar.nat.), Chemistry, Biology and Pharmacy Division,Freie Universität Berlin, Berlin, Germany.
PhD. Plant Physiology / Plant Ecophysiology,April 2009 – November 2013

Master of Science (M.Sc.) in Plant Biotechnology from Mosul University, Mosul, Iraq. November 1999 – February 2002.

Bachelor of Science (B.Sc.) in General Biology from Mosul University, Mosul, Iraq. September 1995 – Jun 1999.

Primary, Intermediate and Secondary:- (Preparatory school) in Qaraqosh, Nineveh governorate, Iraq.

Language:-

New Aramaic – Assyrian	Mother language.
Arabic	Native or bilingual proficiency.
English	Professional working proficiency.
Deutsch	Elementary.

Experience:-
Lecturer at the University of Duhok from December 2013 – up to now.

Teaching and research.
Assistant lecturer at the University of Duhok from September 2004 – April 2009.

M.Sc. Supervision
M.Sc. student: Mrs. Halaa Modhafer Hamid "In Vitro Phytotoxicity of Silver Nanoparticles in Common Forage Plant Medicago Sativa".

Teaching and Research.

Courses (teaching):-
Post-graduates:-
M.Sc. course of advanced plant physiology.
M.Sc. course of adv. Plant Ecophysiology.

Undergraduates:-

Principle of plant physiology for the 4th grad biology students 2014 up to ---.
Growth and development for the 4th grad biology students 2014 up to ---.
Ecology for the 2nd grad biology students 2015-2016.
Environmental pollution for the 2nd grad biology students 2015-2016.
Archegoniate for the 2nd grad biology students 2018 up to 2020. Evening study
Phycology for the 2nd grad biology students 2018 up to 2020. Evening study

Assignment and Membership at the Biology Department:-

Coordinator (reporter) at biology department 2016 --- 2020.
Member and head of the TQA committee and continuous largening 2015 up to now.
Member and/or head of the Examination committee 2015- 2022.
Member of the post-graduate studies planning committee 2015-2016.
Member of the portfolio evacuation committee 2015-2022.

Memberships

Member of the Kurdistan Biological Syndicate.
Member in European Plant Science Organization (EPSO), Berlin, Germany: 2011 ---.
Member in Dahlem Center of Plant Science (DCPS), Berlin Germany: 2010 up to ---.

PhD Thesis Title:- Overexpression of Pyruvate , Orthophosphate Dikinase Facilitate Phosphate Uptake and Allows better Growth of Tobacco in Alkaline Soil .

M.Sc. Thesis Title:- Electron Stimulation and Genetic Transformation by *Agrobacterium rhizogenes* R1601 in Improvement of Protein Content in Alfalfa and Clover Plants .

Publications

GH Danial, AN Yousif, MS Omar , Clonal propagation of Dianthus caryophyllus L. through tissue culture J. Duhok Univ 12 (1), 91-958 2009.

RS Toma, GH Danial, ANY Habash, In vitro morphogenetic response of apple (Malus domestica Borkh.) and pear (Pyrus communis L.) to the elevated levels of copper and myo-inositol Acta Agrobotanica 65 (3)7 2012.

GH Danial, DA Ibrahim, AN Yousef, SB Elyas, Rapid protocol of *Aloe vera* in vitro propagation, The Iraqi Journal of Agricultural Science 50 (4), 1377-13822 2019.

Al Barhawi, NY Atheel, Regeneration of Transformed Forage Legume Plants by Agrobacterium rhizogenes R160,1 Qatar University1 2003.

SJM, Habash, A.N., Trejo-Téllez, L.I., Köhn, C.A. 2013 Überexpression der Pyruvat-Phosphat-Dikinase ermöglicht besseres Wachstum von Tabak auf kalkhaltigen Böden. 2013. Verlag: Dr. Köster, Berlin.

A. Habash ,Overexpression of Pyruvate, Orthophosphate Dikinase Facilitates Phosphate Uptake and Allows Better Growth of Tobacco in Alkaline Soil, Biology Chemistry and Pharmacy Division 2013.

SJM, Habash, A.N., Trejo-Téllez, L.I., Köhn, C.A.,Transgene Pflanzen mit erhöhter Säure-Exsudation: Phosphaternährung.
Verlag: Dr. Köster, Berlin 2012.
Atheel Najib Yousef Habash, Electro stimulation and genetic transformation by Agrobacterium rhizogenes R 1601 in improvement of protein content of alfalfa and clover plants 2002, Dissertation.Department of Biology, College of Education, University of Mousel.

Hala M.H; Belan.M.K; Atheel .N. Y, *In Vitro* Phytotoxicity of Silver Nanoparticles In Commom Forage Plant Medicago Sativa. JDU. Vol.25,No.1,2022.

Skills:-

Practical Scientific Work Skills

Protein Isolation and purification, SDS-page, Tissue culture technique, Plant nutrition, Western blot, Biochemical assays, Metabolite profiling and GC-MAS.

Teaching Skills:-

Theory :-

1. Principles of Plant Physiology.
2. Plant Growth and Development.
3. Ecology and Pollution
4. Archegoniate and Phycology
5. Plant Ecophysiology

Practical:-

1. Plant tissue culture.
2. Cytology.
3. Genetic.
4. Entomology.
5. Lab Techniques.
6. Archegoniate and Phycology.
7. Ecology and environmental pollution.
8. Plant Physiology and Plant Growth and Development.

Computer Skills:-

Microsoft office, GC-Ms data analysis software (MetAlign and Tagfinder software GC – Ms. --- *etc*.