

## **CIRRICULUM VITAE**

**NAFE' M. H. AL- TAWARAH**

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**Assistant Professor in Human Neurophysiology**

**Mutah University, Dept. of Medical Lab. Sciences, College of Sciences**

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### **Personal Data:**

**Work address** : Medical Laboratory Sciences, Faculty of sciences, Mutah University.

Mutah University, Al-Karak, Jordan.

**Citizen** : Jordanian

**Place of birth** : Ma'an - Jordan, 5<sup>th</sup> of December, 1977

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### **Education:**

**June, 1995** : Al-shoubak secondary School (Al-Tawjehi)

(Average; 86.7%).

**June, 2000** : **Bachelor (BSc)**, Doctor of Veterinary Medicine (DVM)

School of Veterinary Medicine, Jordan University of Science and Technology (JUST), Irbid, Jordan.

(Average: good).

**June, 2007** : **Master (MSc), Biology- Molecular Biology**, Research

Program. Department of Biology, Faculty of Science, Mutah University, AL-Karak, Jordan.

(Average: Excellent).

**Thesis Title:** Characterization of Verotoxigenic Escherichia coli (VTEC) isolated

from slaughtered small ruminants and slaughterhouses in Southern

Jordan.

**June 2016** : **Doctorate of philosophy (PhD), Human Physiology – Neurophysiology, Faculty of Medicine, Istanbul University, Istanbul, Turkey.**

**Thesis Title:** EEG Frequency Characteristics Before and After Modulated Transcranial Direct Current Stimulation (mtDCS) in Rats.

**Field specialization:**

- Human medical physiology
- Human neurophysiology  
Physiology of human nervous system, neural circuits and cognitive neurophysiology. Physiology of membrane potential and brain neurotransmitters.

**Courses:**

**2013 to Present** Human general physiology, human medical systematic physiology, physiology of human nervous system, human anatomy, physiology of membrane potential and cell physiology, clinical endocrinology.

**Publications:**

1. Tarawneh, K. A., **Al-Tawarah, N. M.**, Abdel-Ghani, A. H., Al-Majali, A. M., & Khleifat, K. M. (2009). Characterization of verotoxigenic Escherichia coli (VTEC) isolates from faeces of small ruminants and environmental samples in Southern Jordan. *Journal of basic microbiology*, 49(3), 310-317.
2. Qaralleh, H., Khleifat, K. M., Al-Limoun, M. O., Alzedaneen, F. Y., & **Al-Tawarah, N. M.** (2019). Antibacterial and synergistic effect of biosynthesized silver nanoparticles using the fungi *Tritirachium oryzae* W5H with essential oil of *Centaurea damascena* to enhance conventional antibiotics activity. *Advances in Natural Sciences: Nanoscience and Nanotechnology*, 10(2), 025016.
3. **Al-Tawarah, N. M.**, Qaralleh, H., Khlaifat, A. M., Nofal, M. N., Alqaraleh, M., Khleifat, K. M., & Al Shhab, M. A. (2020). Anticancer and Antibacterial Properties of *Verthemia Iphionides* Essential Oil/Silver Nanoparticles. *Biomed Pharmacol J*, 13(3), 1175-1185.
4. Qaralleh, H. A., Al-Limoun, M. O., Khlaifat, A., Khleifat, K. M., **Al-Tawarah, N. M.**, Alsharafa, K. Y., & Abu-Harirah, H. A. (2021). Antibacterial and antibiofilm activities of a traditional herbal formula against respiratory infection causing bacteria. *arXiv preprint arXiv:2102.04301*.

5. Al Fraijat B, **Al-Tawarah NM**, Khlaifat AM, Qaralleh H, Khleifat KM, M A, Al-Zereini W, Al-Limoun MO. Urinary tract infection and non-ruptured acute appendicitis association: Uro-pathogens findings. Trop Biomed. 2019 Sep 1;36 (3):620-629. PMID: 33597484.
6. Khleifat, K. M., Qaralleh, H., Al-limoun, M. O., Al-khlifeh, E. M., Aladaileh, S. A., **Tawarah, N.**, & Almajali, I. S. (2021). Antibacterial and Antioxidant Activities of Local Honey from Jordan. Trop. J. of Nat Pro Research. 32, 12314-56.
7. Alqaraleh, M., Kasabari V. Aljafraa A., **Al-Tawarah NM** et al., ( 2021). Evaluation of the Antiglycation Effect of Branched Chain Amino Acids and Phytochemical Compounds on RAW 264.7 Cell Line and their Synergistic Effect on Colorectal Cancer Cell Line Panel. Romanian Journal of Diabetes Nutrition and Metabolic Diseases, 26(4), 361-369
8. Al-khalifeh, E. M., Khleifat, K. M., **AL-Tawarah, N. A.**, AL-Limoun, M. O., Abdel-ghani, A. H., Alsharafa, K., & Qaralleh, H. (2021). Genetic Diversity and Chemical Composition of Juniperus phoenicea L Reflect on Its Antimicrobial Activity. International Journal of Pharmaceutical Research, 9(4): 268-279.
9. Alqaraleh, M., Kasabri, V., Al-Majali, I., Aljaafreh, A., Al-Othman, **AL-Tawarah, N.M.**, Khleifat, K., ... & Qaralleh, H. Branched chain amino Acids as In vitro and in vivo Anti-Oxidation Compounds.
10. **Tawarah NM**, Kaptan Z, Karamürsel S, Bayraktaroğlu Z, Ziylan Z. (2016). Modulated tDCS guides acute-power generation of anodal-tDCS in the upper matched-frequency EEG-bands in the rat brain. Journal of Neurophysiology (In Press).
11. **Tawarah N. M.** and Karamürsel S. (2016). Modulated tDCS/tDCS increasing forward power-effects in upper matched-frequency EEG-bands rather than by tDCS alone in the rat brain. Brain stimulation. (In Press).
12. **Tawarah N. M.** (2021). Synergistic Potential Therapeutic Activity of Aqueous Extract of both *Artemisia jordanica* and *Achillea fragrantissima* in Rabbit's Incision, Excision and Burn Models. Journal of applied biomedicine. (In Press).

### **Author profile ( Scopus) and affiliation**

AL-TAWARAH NAFE M.

Mutah University, department of medical laboratory sciences

**Citation 57, 44 since 2016**

**h-index 3, 3 since 2016**

**i 10-index 2, 2 since 2016**

## **Experiences:**

- 1- **From 2012 to 2016:** Researcher in Neuro- and electro- physiological; Brain electrical stimulation as new tool for non-synaptic neuromodulation, for treatment of some neuro-pathological challenges; like brain stroke, Parkinson disease, epilepsy and seizures.
- 2- **From 2012 to 2016:** Stereotaxic surgery in rats for implantation of transcranial and Epidural electrodes (telemetric or wire technique), which was investigated for many electrophysiological studies (tDCS, tACS, otDCS and for EEG assessment in animal models).
- 3- **From 2012 to 2016:** Analysis of EEG findings; providing valuable information about the brain electrical stimulation effects on electrical activity of brain cortex (after-effect and forward-effects).
- 4- **From 2012 to 2016:** *MAKE* Lab / physiology department – Istanbul Medical Faculty (**MAKE LAB.:** Madde ve Akıl Etkileşimleri Laboratuvarı; **Matter and Mind Interaction Laboratory**), investigation for all researches related for studying of brain and nervous system functions.
- 5- **From 2013 to 2016** Lecturers for 1<sup>st</sup> & 2<sup>nd</sup> level - medical students, department of physiology / Istanbul Medical Faculty -Istanbul University; **General physiology, Neurophysiology and the physiology of cardiovascular system.** Also, for PhD, MSc and department staff (**Cognitive neurophysiology; Neuro-physiological basis of the memory and learning**).
- 6- **From 2017 to 2019** **From 2<sup>nd</sup> semester (1-2-2017) to present,** Assistant Prof. in Med. Lab. Sciences department / Mutah University; **Human physiology, Neurophysiology, Clinical endocrinology and Human anatomy.**
- 7- **From 2019 to 2021** Assistant dean of the faculty of sciences

## **Future scientific interests:**

- 1- Establishment of Neuro-electro-physiological research lab, investigation for neuromodulation / neurostimulation effects of transcranial electrical stimulation techniques ( Transcranial Electrical Stimulation (TES) and Magnetic stimulation ( TMS)) upon brain cortex and sub-cortex layers.
- 2- Planning for opening of *MAKE* Lab center in corporation with Neuro-medicine and neurology specialists. Center will be linked with some international Neuro-electro-physiological centers ( e. g. Turkey - Istanbul medical faculty and Brainstimlab-tDCS). Researches will be investigated in clinical neuropsychiatry and rehabilitation field and for

treatment of neurodegenerative disorders (Autism, Parkinson's Disease, Depression, Seizures ... etc).

**Skills:**

❖ **Computer**

- Well knowledge of word, excel, internet, windows and PowerPoint.
- Well knowledge in ArcGIS, Geographical Information Sys.
- Well knowledge in SPSS, Statistical Analysis.
- Well knowledge in MATLAB and WinEEG analytical programs.

❖ **Languages:**

- **Arabic:** Mother language.
- **English:** Speaking, reading and writing; very good.
- **Turkish:** Speaking, reading and writing; excellent.

**References:**

- 1) Prof. Dr. Asem Al-Shehabi, Faculty of Medicine, Jordan University.  
[\(ashehabi@ju.edu.jo\)](mailto:ashehabi@ju.edu.jo).
  - 2) Prof. Dr. Faisal Ismail Mohammed. Head of physiology Department. Faculty of Medicine. Jordan University.  
[\(fmmed@ju.edu.jo\)](mailto:fmmed@ju.edu.jo), [fimohammed@gmail.com](mailto:fimohammed@gmail.com).
  - 3) Prof. Dr. Sacit Karamursel, Head of Physiology Dep. Faculty of Medicine, Istanbul University., **Istanbul-Turkey** ([sacit@istanbul.edu.tr](mailto:sacit@istanbul.edu.tr)).
  - 4) Prof. Dr. Ziya Ziyaln, Physiology Department, Faculty of Medicine, Aydin University, **ISTNBAUL, TURKEY**. ([ziziylan@yahoo.com](mailto:ziziylan@yahoo.com)).
- **Certificates and references are available upon request.**