# Walaa Obydah Abd El-Hamed Obydah


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## Education and positions:

- **April 2022 till now:** Assistant professor of Medical Physiology, faculty of Medicine, Mansoura University.
- **2022:** PhD degree in Medical Physiology, faculty of Medicine, Mansoura University.
- **2017-2022:** Assistant lecturer of Medical Physiology, faculty of Medicine, Mansoura University.
- **2017:** Master degree in Medical Physiology (MSc), faculty of Medicine, Mansoura University.
- **June 2013-2017:** Demonstrator of Medical Physiology, faculty of Medicine, Mansoura University.
- **March 2012-April 2013:** Internship at Mansoura university hospitals.
- **Nov. 2011:** Bachelor of medicine and surgery (MB BCh), excellence with honor grade, faculty of Medicine, Mansoura University.

## Experiences:

➢ **Teaching: Assistant professor of Medical Physiology, Faculty of Medicine, Mansoura University**

- Actively participated in teaching (lectures, CBL) in conventional program (1st and 2nd year), faculty of Medicine, Mansoura University.
- Supervising teaching assistant for practical sessions (skills and early clinical experience) of Medical Physiology curriculum, faculty of Medicine, Mansoura University.

- Using educational software as virtual physiology (sim heart, sim Vessel, sim neuron and sim muscle), BSL (biopac student lab), Labchart 7 (powerlab) in practical sessions.
- Tutor (PBL and lectures) in semester 1 (life cycle) and semester 2 (cardiopulmonary fitness), Manchester program, faculty of Medicine, Mansoura University.
- Responsible for Medical Physiology course in faculty of nursing (specialized program), Mansoura University.
- Teaching part time (lectures, practical sessions, TBL) in national universities as New Mansoura University (NMU), faculty of medicine (1st, 2nd and 3rd year), dentistry, nursery and health sciences.
- Also participated in teaching in private universities as DELTA University, faculty of Physical therapy.

- **Experienced in electronic question bank system (Qmans) and setting OSPE and OSCE exams.**
- **Member of quality assurance unit in Mansoura Manchester program (preparing course specifications, course reports, blueprints and questionnaire analysis).**
- **Academic advising coordinator of first year Mansoura Manchester program.**
- **Attended workshops of Faculty and Leadership Development Program, Mansoura University Development Center.**
    - **Effective presentation**
    - **Scientific research ethics**
    - **National and international research project**
    - **Financial and legal aspects of university workload**
    - **Using technology in teaching**
    - **Strategic planning**
    - **Managing time and meetings**
    - **References management and electronic indexing**
    - **How to write a scientific paper**

- **Communication skills**
- **Statistical analysis skills**
- **The art of successful leadership**

## Research:

- Experimental animal model of fatty liver diseases (Master and Phd thesis)
- Experimental animal models of epilepsy (2021-2022)
- Member of deep brain stimulation and electrophysiological recording lab, faculty of Medicine, Mansoura University.
- Participated in workshop "Stereo-taxis, deep brain stimulation, and Local field potential recording", 9 th annual conference of Medical Physiology department.
- Experimental animal models of dementia (2022-2024): funded project from academy of scientific research and technology under the title of:

**"Memory, molecular and hippocampal neuronal firing changes following lateral hypothalamic high frequency stimulation in young and aged rats"**

## Publications


• Obydah, W.O., Elwakeel, G.A., El-Hamed, A., Aya, E., Gad, G.E.A. and El Menabawy, F.R., 2019. Role of Melatonin, Glutamine and L-arginine in Prevention of Non-alcoholic Fatty Liver Disease in Rats. Bulletin of Egyptian Society for Physiological Sciences, 39(1), pp.35-51.

• Obydah, W.O., Shaker, G.A., Samir, S.M., El Bassiony, S.F. and Abd El Moneim, H.A., 2021. Effect of vanillic acid and exercise training on fatty liver and insulin resistance in rats: Possible role of fibroblast growth factor 21 and autophagy. Physiology International, 108(4), pp.412-426.

• El Nashar, E.M., Obydah, W., Alghamdi, M.A., Saad, S., Yehia, A., Maryoud, A., Kiwan, N.A., Alasmari, W.A. and Hussein, A.M., 2022. Effects of Stevia rebaudiana Bertoni extracts in the rat model of epilepsy induced by pentylenetetrazol: Sirt-1, at the crossroads between inflammation and apoptosis. Journal of integrative neuroscience, 21(1), p.21.

• El-Hefnawy, M.A., Yehia, A., El Nashar, E.M., Saad, S., Obydah, W., Alghamdi, M.A., Alasmari, W.A. and Hussein, A.M., 2022. Effect of vanillic acid on pentylenetetrazole-kindled rats: Nrf2/HO-1, IGF-1 signaling pathways cross talk. Journal of integrative neuroscience, 21(1), p.15.

• Obydah, W., Abouelnaga, A. F., Abass, M., Saad, S., Yehia, A., Ammar, O. A. A., ... & Hussein, A. M. (2023). Possible Role of Oxidative Stress and Nrf2/HO-1 Pathway in Pentylenetetrazole-induced Epilepsy in Aged Rats. Reports of Biochemistry & Molecular Biology, 12(1), 147.

• Hussein, A.M., Abouelnaga, A.F., Obydah, W. et al. Lateral hypothalamic area high-frequency deep brain stimulation rescues memory decline in aged rat: behavioral, molecular, and electrophysiological study. Pflugers Arch - Eur J Physiol **477**, 371–391 (2025).

• Saad S, Abouelnaga AF, Abass M, Obydah W, Kiwan NA, Ammar OA, Abulseoud OA, Hussein AM. Effect of deep brain stimulation for lateral hypothalamic area on memory decline and hippocampal neurofilaments expression dysfunctions in aged rats. Neuroreport. 2025 May 14;36(8):402-411.

## Oral and poster presentations:

- **Poster presentation at 8th annual conference of Medical Physiology department (2017):** Role of melatonin, glutamine and L-arginine in prevention of non-alcoholic fatty liver disease in rats.
- **Poster presentation at 9th annual conference of Medical Physiology department (2023):** Possible Role of Oxidative Stress and Nrf2/HO-1 Pathway in Pentylenetetrazole-induced Epilepsy in Aged Rats.
- **Oral presentation at 9th annual conference of Medical Physiology department (2023):** Effect of vanillic acid on pentylenetetrazole-kindled rats: Nrf2/HO-1, IGF-1 signaling pathways cross talk.
- **Oral presentation at 10th annual conference of Medical Physiology department (2024):** Could DBS of lateral hypothalamus with high frequent current rescue the memory decline in aged rat? Molecular and electrophysiological study.