ZEINA MALEK
PhD in Neurosciences
zeinasmalek@gmail.com
ORCID: 0009-0006-7075-7991

Current Position in the Arab International University (AIU) and AlSham Private University (ASPU): Professor in Physiology.

RELEVANT POSITIONS

-Head of the Biology Scientific Committee in the Syrian Biology Olympiad, Distinction and Creativity Agency. (2024-present time).
-Member of Biological Ethics Committee, Faculty of Pharmacy, Damascus University. (2023-present time)
-Tutor at the Syrian Virtual University (SVU), the medical education program (Mede), the medical education master (MedE) (2021-2023).
-Member of the Biology Scientific Committee in the Syrian Biology Olympiad, Distinction and Creativity Agency. (2019- present time).
-Editorial Board Member at the FMDB Neuroscience Letters, and Journal of Biomedicine and Chemical Sciences. (2021-present time)
-Member of Trustees Board of the AlJazeera Private University (2018-2020).
-Consultant at Ugarit Education Group (2014-2016).
-Developmental projects: The French Agency for Development (2010-2012).
-Scientific contributions in the Arabic Scientific Encyclopedia.

ACADEMIC POSITIONS IN THE UNIVERSITY OF KALAMOON (UoK)

2015: In Charge of the research affairs, University Presidency.
2014: In Charge of the university's learning and teaching strategies, University Presidency.
2010-2013: Head of Department of Physiology and Pharmacology, Faculty of Medicine.
2008-2015: Associate Professor position. Department of Physiology and Pharmacology, Faculty of Medicine.

COMMITEES IN THE TRUSTEES BOARD OF ALJAZEERA UNIVERSITY (JPU)

-Head of the learning and teaching strategies committee
-Founding member of the ombudsmen committee

PRICES AND FELLOWSHIPS

- PhD Fellowship program of the French Medical Research Foundation
- Polonium program fellowship for researcher's exchange between France and Poland.
- Price of PhD thesis from the European Doctoral College of Strasbourg.

ACADEMIC STUDIES

2008: Post-Doctoral position. Laboratory of Imaging and Cognitive Neurosciences. Faculty of Medicine, Louis Pasteur University, Strasbourg, France**.**
Topic*: Myelin Biopathology and Imaging.*

2007: PhD thesis in Neurosciences. Institute for Cellular and Integrative Neurosciences. Faculty of Life and Health sciences, Louis Pasteur University, Strasbourg, France.
PhD topic: *Serotonin and Circadian Rhythms.*
2002: Master Degree in Neurosciences. Faculty of Life and Health sciences, Louis Pasteur University, Strasbourg, France.
Thesis topic: *Relationship between Raphe complex and biological clock*
2001: Master Degree in Cellular Biology and Physiology. Grade: Nutrition physiology. Faculty of Science, University of Dijon, France.
2000: Higher Studies Diploma in Animal Biology. Faculty of Science, Damascus University, Syria.
Thesis topic: *Analgesia and Swimming Stress*.
1999: Diploma Degree in Biology. Faculty of Science, Damascus University, Syria.

TEACHING AND SUPERVISING

- Physiology and pathophysiology courses at the Arab International University (AIU), Dentistry and Pharmacy faculties (present time)
-Supervising master degree students at the Syrian Virtual University (SVU), Mede program (2021-2023).
-Physiology and pathophysiology courses at the Syrian Private University (SPU), Dentistry and Pharmacy faculties (2015-2025).
-Physiology courses at The International University for Sciences and Technology (IUST), Faculty of Pharmacy (2019 and 2020-2021)
-Physiology courses in the Syrian Biology Olympiad program. Students of the National Biology Olympiad team. Distinction and Creativity Agency (2020-present time)
-Physiology courses at AlJazeera Private University (JPU), Faculty of Pharmacy (2019-2020)
-Physiology courses in Damascus University (2018): 3rd and 4th year biology students, Department of Biology, Faculty of Science.
-Physiology and pathophysiology at University of Kalamoon (UoK), Medicine, Dentistry, Nutrition and Pharmacy faculties (2009-2016).
-Neurosciences courses: **2005** Louis Pasteur University. Strasbourg France.
-The synapses courses: **2005** Louis Pasteur University. Strasbourg, France.
-Vertebrates and invertebrates **anatomy: 2003-2004** Louis Pasteur University. Strasbourg, France
-Supervising Research Activities at Louis Pasteur University. Strasbourg, France (2003-2005).

RESEARCH RELATED SKILLS

In vivo techniques: Intracarotid cannulation in vivo for blood sampling, Telemetry, Locomotor activity Study, siRNA in vivo, genic therapy in animal models for leukodystrophy Intracerebral microdialysis, Several surgical skills on animal models, Animal Facility design and maintenance.
In vitro techniques: Primary glia cell cultures: mixed population of astrocytes and Oligodendrocytes, Extracellular electrophysiological recordings of serotonergic cells.
Histology and Biochemistry: Immunocytochemistry (simple and double staining), Immunoautoradiography, Radioactive *in situ* hybridization, Radio Immuno Assay.
Molecular Biology: PCR, Reverse transcription, Cloning techniques.

PUBLICATIONS AND SCIENTIFIC COMMUNICATIONS

1-Publications:

1-Zeina S Malek, Ghassan Channan, Nasser Thallaj, Xi'an ShiyouDaxueXuebao (ZiranKexue Ban)/ Journal of Xi'an Shiyou University, Natural Sciences Edition.2025.68, 10. 1-35. DOI: 10.5281/zenodo.17321958.

2-E. ARWANI, M. AL SHAREEF, S. HAMZA, **Z. MALEK**, G. SHANNAN, NASSER THALLAJ Xi'an ShiyouDaxueXuebao (ZiranKexue Ban)/ Journal of Xi'an Shiyou University, Natural Sciences Edition.2025.68, 12. 7-24. DOI: 10.5281/zenodo.17894451.

3-SARAH MUSTAPHA IBRAHIM, GHASSAN SHANNAN, **ZEINA S. MALEK**, Dr. NASSER THALLAJ Xi'an ShiyouDaxueXuebao (ZiranKexue Ban)/ Journal of Xi'an Shiyou University, Natural Sciences Edition.2025.68, 12. 83-95. DOI: 10.5281/zenodo.18030031.

4-Shannan, G., **Malek, Z. S**., & Thallaj, N. Advancements in Protein Synthesis: Triazole Multi-Ligation and Cycloadditions for Pharmaceutical Applications. **(2025).** Am J Biomed Sci & Res, 26, (5), 685-700.

5- Shannan, G., **Malek, Z. S.**, & Thallaj, N. PACTAMYCIN: A COMPREHENSIVE REVIEW OF ITS BIOLOGICAL ACTIVITY, BIOSYNTHESIS, AND SYNTHETIC STRATEGIES IN THE FIGHT AGAINST ANTIBIOTIC RESISTANCE. **(2025).** European Journal of Biomedical and Pharmaceutical Sciences (EJBPS). Vol 12, Issue 4, 334-353.

6- Shannan, G., **Malek, Z. S**., & Thallaj, N. A REVIEW OF ANTIBIOTIC-INDUCED DRUG ALLERGIES: MECHANISMS, PREVALENCE, AND FUTURE PERSPECTIVES. **(2025).** European Journal of Biomedical and Pharmaceutical Sciences (EJBPS). Vol 12, Issue 4, 387-399.

7-Al Khleif, M., Alzoubi, N., Shannan, G., **Malek, Z.S.** & Thallaj, N. Exploring Circadian Rhythms: A Comprehensive Study on Sleep Patterns and Disorders in Syrian Society. Am J Biomed Sci & Res. **2025** 26(2) AJBSR.MS.ID.003416, DOI: 10.34297/AJBSR.2025.26.003416.

8-Qattan M., Dashash M., **Malek Z. S.** Enhancing Academic Success: A mixed Study on the Influencing Factors among Pharmacy Students in Syrian Universities. **F1000Res. 2024 Oct 11;13:868.** doi: 10.12688/f1000research.151218.2. PMID: 39483707; PMCID: PMC11525093.

9-Malek Z.S. Antibiotic resistance of urinary tract pathogens among wide population of Syrian patients. **Tishreen University Journal for Research and Scientific Studies. (2024). 46(2), 41-49.**

10- **Malek Z.S.** and Alaan L. Investigation of Syrian cactus leaf extricates gel and shell / shell collagen. **Tishreen University Journal-Medical Sciences Series (2023). 45 (1), 73-81.**

11- Abbood A., **Malek Z.S.,** Thallaj N. Antibiotic resistance of urinary tract pathogens in Syrian children. **Recherche journal of Pharmacy and technology (2022) 15 (11), 4935-4939.**

12- Thallaj N,. **Malek Z.S.,** Abbood A. Antibiotic Resistance of Urinary Tract Pathogens in Syrian Females. **Xi'an ShiyouDaxueXuebao (ZiranKexue Ban)/ Journal of Xi'an Shiyou University, Natural Sciences Edition (2022) 65(6), 302-312.**

13- Abbood A., **Malek Z.S.,** Al-Homsh Y., Thallaj N. *In vitro* Study for Antibiotic resistance of bacteria causing Urinary Tract Infection from Syrian adults. **Research Journal of Pharmacy and Technology (2022) 15 (10), 4727-4732.**

14- **Malek Z.S.** and Labban L., Photoperiod regulates the daily profiles of Tryptophan Hydroxylase-2 gene expression the raphe nuclei of rats**. The International Journal of neurosciences (2021) 131 (12), 1155-1161.**

15- Labban L., Thallaj N., **Malek Z.S.** Estimation of ω−3 and ω− 6 fatty acids intakes, their ratio, their sources and their role in glycemic control among type 2 diabetics. **International Journal of Medical Studies (2021) 5 (12), 23-36.**

16-Labban L., Kudsi M., **Malek Z.S.**, Thallaj N., Pain Relieving Properties of Ginger (Z. officinale) and Echinacea (E. angustifolia) Extracts Supplementation among Female Patients with Osteoarthritis. A Randomized Study. **Advances In Medical, Dental and Health Sciences (2020). 3(3):45-48.**

17-Malek Z.S., and Labban L.**,** A comparative Study Of Tryptophan Hydroxylase Circadian Rhythm In The Functional Parts Of Dorsal Raphe Nuclei In the Mesencephalon. **European Journal of Pharmaceutical and Medical Research (2019). 6(11):527-532.**

18-Labban L. and **Malek Z**. The Effects of Hypoglycemic and Hypolipidemic Properties of Aloe vera on Type 2 Diabetics**. Annals of Food and Nutrition Research Journal (2019). 1 (1), 1-6.**
19-Labban, L., Thallaj, N., & **Malek, Z.** (2019). The implications of E-cigarettes or vaping on the nutritional status. **Journal of Medical Research and Health Sciences,** *2*(11), 784-787. https://doi.org/10.15520/jmrhs.v2i11.128
20-Malek Z., The effect of regular exercise on the expression of tryptophan hydroxylase-2 gene within Raphe complex: functional relationship with adrenal hormones and glucose blood levels. **Journal of AlBaath University, 2018, Volume 40 Issue4.**
21-Labban L. and **Malek Z.** The association between visceral fat, dietary patterns and comorbidities. **Open Access Library Journal 2018, Volume 5.**
22-Malek, Z. Regulation of proteolipid protein (PLP) expression in oligodendrocytes cell lines of animal models for Pelizaeus-Merzbacher Disease (PMD) using RNA interference (RNAi) technology. **Damascus University Journal for Basic Sciences 2018, Volume 34 Issue 1.**
23-**Malek, Z.** The effect of Glucocorticoids rhythm on serotonin release within the hypothalamic suprachiasmatic nuclei; the locus of the Biological Clock: functional relationship with blood glucose. **Tishreen University Journal for Research and Scientific Studies. 2018. Volume 40.**
24-Labban L., Alshishkli, M., Alkhalaf, A. and **Malek Z.** The Effect of Dental Amalgam Toxicity on Health and Nutritional Status**. J. Adv. Res. Dent. Oral Health 2017**; 2(3&4)
25-**Malek Z.S.**, Pevet P. and Raison S. Effect of photoperiod on the daily profiles of Tryptophan Hydroxylase2 mRNA in the rat raphe nuclei **(PhD Thesis)**.
26-**Malek Z.S.**, Sage D., Pevet P. and Raison S. Daily rhythm of Tryptophan Hydroxylase2 mRNA within Raphe neurons is induced by corticoid daily surge and modulated by enhanced locomotor activity. ***Endocrinology 2007*** 148(11) 5165-5172.
This article has been commented in a special editorial "News & Views" published in ***Endocrinology****. Buijs R. M. and Escobar C.* ***Corticosterone and Activity: The Long Arms of the Clock Talk Back. Endocrinology 2007*** *148(11) 5162-5164.*
27-**Malek Z.S.,** Dardente H., Pevet P. and Raison S. Tissue specific expression of Tryptophan Hydroxylase mRNAs in the rat midbrain: anatomical evidences and daily profiles. ***European Journal of Neurosciences 2005*** 22(4) 895-901.
28-**Malek Z.,S.,** Pevet P. and Raison S. Circadian changes in Tryptophan Hydroxylase protein levels within the Rat Intergeniculate Leaflets and Raphe Nuclei. ***Neuroscience 2004*** 125 (3) 749–758.
29-**Malek, Z.S.,** Dardente, H., Revel, F., Raison S. and Pevet P. **2003:** *Mesocricetus Auratus* Neuronal Tryptophan Hydroxylase. (GenBank access number AY 345967).

2-Communications in International Meetings:

1-Nexon L., **Malek Z. S.**, Pevet P and Raison S. Poster : Influence de la photopériode sur l'expression journalière du gène *tph2* chez le Hamster doré. *35th Conference of the Society of Neuroendocrinology* ***2008*** Strasbourg, France.
2-Raison S., **Malek Z.S.**, Sage D. and Pevet P**. Poster:** Le rythme circadien d'expression de l'ARNm de la tryptophane hydroxylase 2 dans les noyaux du raphé est induit par le rythme de corticostérone et modulé par l'activité locomotrice. *39th Conference of the French Society of Chronobiology* **2007**. Paris, France.
3-**Malek Z.S.**, Sage D. Pevet P and Raison S. **Poster**: Effect of Corticosterone and Locomotor Activiy on Tryptophan Hydroxylase 2 mRNA expression in Dorsal and Median Raphe Nuclei. *8th Conference of the French Society of Neuronscience* **2007.** Montpellier, France.
4-Nexon L., **Malek Z. S.**, Pévet P. and Raison S. **Poster:** Daily variations of Tryptophan Hydroxylase 2 mRNA in the Syrian hamster in relation with photoperiod. *8th Conference of the French Society of Neuronscience* **2007.** Montpellier, France.
5-Malek Z.S., Sage D. Pevet P and Raison S. **Poster**: Hormonal Regulation of Tryptophan Hydroxylase 2 mRNA Daily Rhythm Within the Rat Dorsal and Median Raphe Nuclei. *5th Forum of European Neuroscience* **2006**. Vienna. Austria.

6-Raison S., **Malek Z.S.**, Sage D. and Pevet P. **Speech**: Régulation de l'expression du gène Tryptophane Hydroxylase 2 chez le rat : Implication des glucocorticoïdes. *38th Conference of the French Society of Chronobiology* **2006**. Lyon, France.
7-Malek Z.S., Pevet P. and Raison S. **Poster**: How the Circadian Clock Controls the Rhythmic Synthesis of Serotonin within the Raphe Nuclei. *10th Congress of the European Pineal and Biological Rhythm Society* **2005**. Frankfurt, Germany.
8-Pevet P., **Malek Z.S.** and Raison S. **Poster**: Glucocorticoids and Rhythmic Synthesis of Serotonin in the Rat Circadian System. *7th Colloquium of Neurosciences Society* **2005.** Lille. France.
9-**Malek Z.S.,** Pevet P. and Raison S. **Poster**: Glucocorticoids and Rhythmic Synthesis of Serotonin in the Rat Circadian System. *37th Conference of the French Society of Chronobiology* **2005**. Strasbourg, France.
10-Raison S., **Malek Z.S.** and Pevet P. **Poster**: Rhythmic Synthesis of Serotonin within Serotonergic afferences of the Rats Circadian System. *32nd Congress of Neuroendocrinology Society* **2004**. La Grande-Motte. France.
11-Malek Z.S., Pevet P and Raison S. **Speech**: Rhythmic Synthesis of Serotonin within the Serotonergic Afferences to the Circadian System of Rat. *36th Conference of the French Society of Chronobiology* **2004**. Rennes, France.
12-Malek Z.S., Raison S., Maître M. and Pevet P. **Poster**: Is there a Circadian Release of Serotonin within the Rat Intergeniculate Leaflet? *6th Colloquium of the Neuroscience Society* **2003.** Rouen, France.
13-**Malek Z.S.**, Raison S., Maître M. and Pevet P. **Poster**: Is there a Circadian Release of Serotonin within the Rat Intergeniculate Leaflet? *Neurex Annual Meeting* **2003**. Basle, Switzerland.