

## **Professor Nasra Naeim Ragab Ayuob**

M.B.B.ch, M.sc, PhD, JMHPE, FAIMER Fellowship (ASU MENA FRI).

Vice-dean of educational affairs/Medical Histology/Medical Education Departments, Faculty of Medicine, Damietta University, Damietta, Egypt.

### **Personal data**

**Name:** Nasra Naeim Ragab Ayuob

**Nationality:** Egyptian

**Gender:** Female

**Birth date:** September, 28, 1974

**Religious:** Moslem

**Marital status:** Married

**Mailing address:**

[nasraayuob@gmail.com](mailto:nasraayuob@gmail.com)

[nasraayuob@du.edu.eg](mailto:nasraayuob@du.edu.eg)

**Mobile phone:** 00201066513745

### **Scientific Profile**

**Researcher ID:** D-2504-2012. URL: <http://www.researcherid.com/rid/D-2504-2012>

**Research gate:** [https://www.researchgate.net/profile/Nasra\\_Ayuob](https://www.researchgate.net/profile/Nasra_Ayuob)

**ORCID number:** <https://orcid.org/0000-0002-3369-2897>

**Publons:** <https://publons.com/researcher/3144278/nasra-ayuob>

**Scopus ID:** <https://www.scopus.com/authid/detail.uri?authorId=35975573600>

**Google scholar:** <https://scholar.google.com/citations?hl=en&user=Uvb3ftQAAAAJ>

**Academia.Edu:** <https://damietta.academia.edu/NasraAyoub>

**h-index:** 16

### **Professional Qualifications**

- Fellowship ASU-MENA-FRI (Ain Shams University Middle East North Africa-FAIMER Regional Institute) 2023.
- JMHPE (Joint Master of Health professions Education, University of Maastricht and Suez Canal University) April, 2009.
- M.D in Histology and Cell Biology, 2007, Mansoura University.
- M.Sc. in Histology and Cell Biology, 2003, Mansoura University.
- M.B.B.Ch, 1998, Faculty of Medicine, Mansoura University.
- Certificate from FWOUCEM (FAIMER WFME OPEN UNIVERSITY distance learning resources for medical education) in "Self review and accreditation" in 2010.

## Career Profile

**Current jobs/positions:** Vice-dean of educational affairs, Faculty of Medicine, Damietta University, Egypt /Professor, Medical Histology and Cell Biology Department, Faculty of Medicine, Damietta University, Egypt (2020-till now).

### Previously:

- Head of Medical Education department, Faculty of Medicine, Delta University for Science and Technology, Mansoura, Egypt (2020)
- Professor, Medical Histology and Cell Biology Department, Faculty of Medicine, Mansoura University, Egypt (2016-2019).
- Professor, Medical Education department, Deputy of program director, Faculty of Medicine, King Abdulaziz University, Jeddah, kingdom of Saudi Arabia ( between 2008-2016).

## Academic, Teaching, and Clinical Experience

### Training course:

- Training programs at the FLDP (faculty and leadership Development Program) (2004-2007).
- Training course in Electron Microscope Technology, in electron microscope unite, Biology department, Faculty of Science, King Abdulaziz University. In 17-21/1/ 2009.
- Preparation of the University Teaching Staff, Faculty of Education, Mansoura University (2004).
- Training course in Biostatistics, (SPSS) program in Faculty of Medicine, Mansoura University (2004).
- Training course in Research Methodology in faculty of Medicine, Mansoura University (2004)
- Training course in Faculty and Leadership Development program (FLDP), Mansoura University (2004).

### Professional Activities:

- Teaching of Histology and Cell biology to students of the first and second year of collage of Medicine, Dentistry and Pharmacy Mansoura University.
- Teaching of Histology to students of collage of Medicine, Dentistry, Pharmacy Nursing and Allied health sciences at King Abdulaziz University.
- Workshops in the field of medical education at Faculty of medicine, Mansoura University.

- Workshops in the field of medical education at Faculty of medicine, King Abdulaziz University, KSA.

**Professional experience (in the ministry of health and population, Egypt):**

- 1) House officer at Mansoura University Hospital (March, 1999- February, 2000).
- 2) General practitioner at ministry of health (March, 2000-June, 2000) in the field of maternal, child and family health.

**Teaching experience:**

- Demonstrator in Histology and Cell Biology, Faculty of medicine, Mansoura University (June 2000 – January 2004).
- Assistant Lecturer in Histology and Cell Biology, Faculty of medicine, Mansoura University (January 2004 – August 2007).
- Lecturer in Histology and Cell Biology, Faculty of medicine, Mansoura University (January 2007 – Oct 2012).
- Assistant Professor in Histology and Cell Biology, Faculty of medicine, Mansoura University (Oct 2012 till now).
- Assistant professor in Anatomy and Histology, Faculty of medicine, King Abdulaziz University, kingdom of Saudi Arabia (2008-2009).
- Assistant professor in Medical Education, Faculty of medicine, King AbdulAziz University, kingdom of Saudi Arabia (2009-2012).
- Associate professor in Medical Education, Faculty of medicine, King Abdulaziz University, kingdom of Saudi Arabia (2012-2016).
- Full professor in Medical Education, Faculty of medicine, King Abdulaziz University, kingdom of Saudi Arabia (March 2016).
- Full professor in Histology & Cell Biology, Faculty of medicine, Mansoura University, Egypt (Nov 2017).

**Workshops:**

- Attendance of the scientific workshop held at the Center of Excellence for Osteoporosis Research at KAU in 18/11/2008.
- Attendance of the fourth Academic Day held in the center of teaching and learning development, KAU in 25-26/ 11/2008.
- Attendance of the workshop entitled “Good Clinical Practice Course” in King Fahed research center in February 2009.
- Attendance of the Preclinical scientific research conference at, King Fahed research center in March 2010.

- Attendance of The 4th International Conference on Quality and Evidence Based on Prophetic Medicine & Sheikh Zayed International Awards for TCAM. In February, 2020

#### **Authorship participation:**

- Nasra Naeim Ayuob and Soad Shaker Ali (2012). Cell-Cell Interactions and Cross Talk Described in Normal and Disease Conditions: Morphological Approach, Cell Interaction, Sivakumar Gowder (Ed.), ISBN: 978-953-51-0792-7, InTech, <http://dx.doi.org/10.5772/48435>: pp205-230.

#### **Editorial membership:**

- Editor at "HSOA Journal of Cytology and Tissue Biology" <http://www.heraldopenaccess.org/herald/index.php/cytology>
- Member in the editorial board of "Aperito Journal of Cellular and Molecular Biology" [http://aperito.org/journal/ebm\\_display/18](http://aperito.org/journal/ebm_display/18).

#### **Reviewer at:**

- Frontiers in Pharmacology
- Frontiers in Psychiatry
- Metabolic brain diseases
- Journal of Microscopy and Ultrastructure
- ANDROLOGIA
- the journal Diabetes, Metabolic Syndrome and Obesity
- Journal of Taibah University
- Nutrition and Food Science
- Journal of Zhejiang University-SCIENCE B

#### **Research Publications**

#### **Scientific research in the field of Medial Histology and Cell Biology:**

1. Ghadeer I. Alrefaei, Hailah M. ALmohaimeed, Sami A. Algaidi, Mohammed Saad Almuhayawi, Fatma Mohamed AbdAllah, Nouf S. Al-Abbas, Nehad A. Shaer, Zuhair M. Mohammedsaleh, Fayez M Saleh, Nasra Ayuob. Cinnamomum and Zingiber attenuate diabetes-induced inflammatory testicular injury in rats and modulating SIRT1 expression. Journal of Men's Health. 2023, 19(8): 22-32. **(IF: 0.9) (Q4).**

2. Dalia R. ElBassouny, Alyaa A. Mansour, Amany S. Ellakkany, Nasra N. Ayuob, Amany A. AbdElfattah. Can coenzyme Q10 alleviate the toxic effect of fenofibrate on skeletal muscle? Histochemistry and Cell Biology. <https://doi.org/10.1007/s00418-023-02205-5> (IF: 3.6) (Q2).
3. Sami Algaidi, Khadija A Faddladdeen, Ghadeer I Alrefaei, Safa H Qahl, Emad A Albadawi, Hailah M AlMohaimeed and Nasra Ayuob. Thymoquinone exerts testicular protective effect in hypothyroid rats by suppressing proinflammatory cytokines and oxidative stress and promoting sirt1 testicular expression. Front. Pharmacol., 24 November 2022. Sec. Experimental Pharmacology and Drug Discovery <https://doi.org/10.3389/fphar.2022.1040857>. (IF: 5.9) (Q1).
4. Hailah M Almohaimeed, Maryam Hassan Al-Zahrani, Mohammed Saad Almuhayawi, Sami Awda Algaidi, Ashwaq H Batawi, Hasan Ahmed Baz, Zuhair M Mohammedsaleh, Nhal Ahmed Baz, Fayez M Saleh, Nasra Ayuob. Accelerating Effect of Cucurbita pepo L. Fruit Extract on Excisional Wound Healing in Depressed Rats Is Mediated through Its Anti-Inflammatory and Antioxidant Effects. Nutrients 2022 14 (16), 3336. (IF: 6.7) (Q1).
5. **Duaa Bakhshawin**, Khadija Abdul Jalil Faddladdeen, Soad Ali, Samar mohammed Alsaggaf and **Nasra Naeim Ayuob**. Nanoparticles of Costus speciosus Ameliorate Diabetes-Induced Structural Changes in Rat Prostate through Mediating the Pro-Inflammatory Cytokines IL 6, IL1 $\beta$  and TNF- $\alpha$ . Molecules 2022 (IF: 4.4) (Q2).
6. Almohaimeed HM, Hamed S, Seleem HS, Batawi AH, Mohammedsaleh ZM, Balgoon MJ, Ali SS, Al Jaouni S and **Ayuob N** (2021). An Ethanolic Extract of Cucurbita pepo L. Seeds Modifies Neuroendocrine Disruption in Chronic Stressed Rats and Adrenal Expression of Inflammatory Markers and HSP70. Front. Pharmacol. 12:749766. doi: 10.3389/fphar.2021.749766. (IF: 5.81) (Q1).
7. Hailah M. ALMOHAIMED, Emad A. ALBADAWI, Zuhair M. Mohammedsaleh, Hadel M. ALGHABBAN, Hanan S. SELEEM, Osama I. RAMADAN, **Nasra N. Ayuob**. Brain-derived Neurotropic factor (BDNF) mediates the protective effect of Cucurbita pepo L. on salivary glands of rats exposed to chronic stress evident by structural, biochemical and molecular study. J Appl Oral Sci 2021;29:e20201080. (IF: 1.7) (Q2).
8. Hailah M. ALmohaimeed, Zuhair M Mohammedsaleh, Ashwaq H. Batawi, Maha Jameel Balgoon, Osama Ibraheim Ramadan, Hasan Ahmed Baz, Soad Al Jaouni, **Nasra Naeim Ayuob**. Synergistic anti-inflammatory and neurotropic effect of *Cinnamomum cassia* and *Zingiber officinale* alleviates diabetes-induced hippocampal

changes in male albino rats. Structural and molecular evidence. *Front Cell Dev Biol.* 2021 Sep 8;9:727049. doi: 10.3389/fcell.2021.727049. **(IF: 6.68) (Q1).**

9. Hailah M. ALmohaimeed, Ashwaq H. Batawi, Zuhair M Mohammedsaleh, Soad Al Jaouni, Samiah A mutlq Alsawat, Manal G Abd El Wahab, Amany A. AbdElfattah, **Nasra N Ayuob**. Musk (*Moschus moschiferus*) Attenuates Changes in Main Olfactory Bulb of Depressed Mice: behavioral, biochemical, and histopathological evidence. *Front Behav Neurosci.* 2021 Aug 27;15:704180. doi: 10.3389/fnbeh.2021.704180. **(IF: 3.56) (Q1).**
10. **Nasra Ayuob**, Soad Ali Shaker , Etedal Hawuit, Nouf saeed Al-Abbas , Nehad A Shaer Soad Al Jaouni and Mohamed R. Mahdi. L. *Cucurbita pepo* alleviates chronic unpredictable mild stress via modulation of apoptosis, neurogenesis and gliosis in rat hippocampus. *Oxidative Medicine and Cellular Longevity*, vol. 2021, Article ID 6662649, 12 pages, 2021. <https://doi.org/10.1155/2021/6662649>. **(IF: 6.5) (Q2).**
11. Khadija Abdul Jalil Faddladdeen, Soad Ali, Safia Mohammed Abdullah Bahshwan, **Nasra Ayuob**. Thymoquinone Preserves Pancreatic Islets structure through Upregulation of Pancreatic  $\beta$ -catenin in Hypothyroid Rats. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy* 2021:14 2913–2924. **(IF: 3.16) (Q2).**
12. Maha Jameal Balgoon; Maryam H. Al-Zahrani; Soad Al Jaouni; **Nasra Ayuob**. Combined Oral and Topical Application of Pumpkin (*Cucurbita pepo* L.) Alleviates Contact Dermatitis Associated With Depression Through Downregulation Pro-Inflammatory Cytokines. *Frontiers in Pharmacology*, 2021. DOI: 10.3389/FPHAR.2021.663417 **(IF: 5.81) (Q1).**
13. **Nasra Ayuob**; Mona Ramadan Al-Shathly; Abdulaziz Bakhshwin; Nouf Saeed Al-Abbas, Nehad A Shaer, Soad Al Jaouni and Walaa H. E. Hamed. p53 Rather Than  $\beta$ -Catenin Mediated the Combined Hypoglycemic Effect of *Cinnamomum cassia* (L.) and *Zingiber officinale* Roscoe in the Streptozotocin-Induced Diabetic Model *Frontiers in Pharmacology*. 2021. DOI: 10.3389/FPHAR.2021.664248 **(IF: 5.81) (Q1).**
14. **Nasra Ayuob**, Etedal Hawuit, Zuhair M Mohammedsaleh, Dalia Shaalan, Maryam Mousa Hassn Hawasah, Khadija Abdulrhman Ahmed Basheikh, Soad Ali Shaker. L. *Cucurbita pepo* modulates contact dermatitis in depressed rats through downregulation of proinflammatory cytokines and upregulation of antioxidant status. *Advances in Dermatology and Allergology*. 2021. **(IF: 1.83) (Q3).**
15. **Ayuob N**, Shaker SA, Bakhshwin A, Alsaggaf S, Helal G, Hamed S. Raisins preserve thyroid gland function and structure in an animal model of hypercholesterolemia. *J Microsc Ultrastruct*. 2021. DOI: 10.4103/JMAU.JMAU\_93\_20

16. Ayuob NN, Balgoon MJ, Ali S, Alnoury IS, ALmohaimeed HM and AbdElfattah AA (2020). Ocimum basilicum (Basil) Modulates Apoptosis and Neurogenesis in Olfactory Pulp of Mice Exposed to Chronic Unpredictable Mild Stress. *Front. Psychiatry* 11:569711. doi: 10.3389/fpsyg.2020.569711. **(IF: 3.1) (Q2)**.
17. N Ayuob, MJ Balgoon, AA El-Mansy, WA Mubarak, AEDL Firgany. Thymoquinone Upregulates Catalase Gene Expression and Preserves the Structure of the Renal Cortex of Propylthiouracil-Induced Hypothyroid Rats. *Oxidative Medicine and Cellular Longevity* 2020. **(IF: 5.07) (Q2)**.
18. Al-Shathly MR, Ali SS, Ayuob NN. Zingiber officinale preserves testicular structure and the expression of androgen receptors and proliferating cell nuclear antigen in diabetic rats. *Andrologia*. 2020 Feb 5:e13528. **(IF: 2.77) (Q2)**
19. Ayuob NN, El-Hawwary AA, Huwait EA, Mubarak WAE, Balgoon MJ. Red grape juice protects the rat thyroid gland against hypercholesterolemic changes. Ultrastructural and biochemical evidences. *Rom J Morphol Embryol*. 2019; 60(3):921-929. **(IF: 1.5) (Q4)**
20. Nasra Naeim Ayuob, Ahmed Abdel-Hamid Mohamed Abdel-Hamid, Ghada Mohamed Moneir Helal, Wafaa Alaa Mubarak. Thymoquinone reverses nonalcoholic fatty liver disease (NAFLD) associated with experimental hypothyroidism. *Rom J Morphol Embryol*. 2019;60(2):479-486. **(IF: 1.5) (Q4)**
21. Nasra N. Ayuob, Hanem S. Abdel-Tawab, Ahmed A. El-Mansy, and Soad S. Ali. The protective role of musk on salivary glands of mice exposed to chronic unpredictable mild stress. *Journal of Oral Science*, 2019, 61(1), 95-102. **(IF: 0.853) (Q4)**
22. Soad Shaker Ali, Etedal Huwait, Raid Mahmoud Hamdy, Ahlam alahmadi, Abeer Alansari, and Nasra Naeim Ayuob. Renoprotective effect of red grape (*Vitis vinifera L.*) juice and dark raisins against hypercholesterolemia-induced tubular renal affection in albino rats. *Folia Morphol (Warsz)*. 2019;78(1):91-100. **(IF:0.34) (Q4)**
23. Ayuob NN, Balgoon MJ. Histological and molecular techniques utilized to investigate animal models of depression. An updated review. *Microsc Res Tech*. 2018 Aug 31. doi: 10.1002/jemt.23105. **(IF:1.08) (Q3)**
24. Abd El Wahab MG, Ali SS, Ayuob NN. The Role of Musk in Relieving the Neurodegenerative Changes Induced After Exposure to Chronic Stress. *American Journal of Alzheimer's Disease and other Dementias* 2018 Jan 1:1533317518755993. doi: 10.1177/1533317518755993. **(IF: 1.8). (Q4)**

25. **Nasra Naeim Ayuob**, Manal Galal Abd El Wahab, Soad Shaker Ali, Hanem Saad Abdel-Tawab. Ocimum basilicum improve chronic stress-induced neurodegenerative changes in mice hippocampus. *Metab Brain Dis.* 2018 Jan 22. doi: 10.1007/s11011-017-0173-3. **(IF: 2.29). (Q3).**
26. **Nasra Naeim Ayuob**, Soad Shaker Ali and Manal Galal Abd El Wahab. Can Ocimum Basilicum (Basil) Relief The Impact of Chronic Unpredictable Mild Stress on The Mice Salivary Glands? *Afr J Tradit Complement Altern Med.,* (2018) 15 (1). **(IF: 0.5). (Q4)**
27. **Nasra Naeim Ayuob**, Alaa El-Din L. Firgany, Ahmed A. El-Mansy. Soad Ali. Can Ocimum basilicum relieve chronic unpredictable mild stress-induced depression in mice? *Experimental and Molecular Pathology.* 2017 Aug 18;103(2):153-161. doi: 10.1016/j.yexmp.2017.08.007. **(IF: 2.4). (Q2)**
28. SS Ali, MG Abd El Wahab, **NN Ayuob**, M Suliaman. The antidepressant effect of Ocimum basilicum in an animal model of depression. *Biotechnic & Histochemistry.* 2017 Aug 11:1-12. doi: 10.1080/10520295.2017.1323276. **(IF: 1.08). (Q4)**
29. **Ayuob Nasra**. Evaluation of the antidepressant-like effect of Musk in animal model of depression, how it works? *Anat Sci Int.* 2017 Sep;92(4):539-553. doi: 10.1007/s12565-016-0357-7. **(IF: 0.86). (Q2)**
30. **Nasra Naeim Ayuob**, Soad Shaker Ali, Mansour Suliaman and Manal Galal Abd El Wahab and Samra Mansour Ahmed. The antidepressant effect of musk in an animal model of depression: A histopathological study. *Cell Tissue Res.* 2016 Nov; 366(2):271-284. **(IF: 2.9). (Q3)**
31. **Nasra N. Ayuob**. Histological and immunohistochemical study on the possible ameliorating effects of thymoquinone on the salivary glands of rats with experimentally induced hypothyroidism. *The Egyptian Journal of Histology.* 2016, 39: 125-135.
32. **Ayuob, Nasra**; ElBeshbeishy, Rana. Impact of an Energy Drink on the Structure of Stomach and Pancreas of Albino Rat: Can Omega-3 Provide a Protection? *PLOS ONE*, 2016 Feb 19;11(2):e0149191. **(IF: 3.06) (Q2)**
33. **Ayuob, Nasra N.;** El-Shitany, Nagla A.; Alama, Mohammed Nabil. Thymoquinone protects against hypothyroidism-induced cardiac histopathological changes in rats through a nitric oxide/antioxidant mechanism. *BIOMEDICAL RESEARCH-INDIA.* 2016, 27 (1): 93-102. **(IF: 0.236). (Q4)**

34. Murad HA., Ayuob NN. Co-administration of pioglitazone improves fluoxetine's antinociceptive, neuroprotective and antidepressant effects in chronic constriction injury in rats. *Pain physician* 2015, 18:609-620. (IF: 3.542). (Q2)
35. Alrefaei G, Ayuob NN, Ali SS, Al-Karim S. Effects of maternal age on the expression of mesenchymal stem cell markers in the components of human umbilical cord. *Folia Histochem Cytobiol.* 2015, 53(3): 259-271 (IF: 1.364). (Q4)
36. Alrefaei GI, Al-Karim S, Ayuob NN, Ali SS. Does the maternal age affect the mesenchymal stem cell markers and gene expression in the human placenta? What is the evidence? *Tissue Cell.* 2015 Aug;47(4):406-19. (IF: 1.2). (Q3)
37. Ali SS, Hamed EA, Ayuob NN, Shaker Ali A, Suliman MI. Effects of different routes of nicotine administration on gastric morphology and hormonal secretion in rats. *Exp Physiol.* 2015 Aug; 100(8):881-95. (IF: 3.2). (Q2)
38. Saleh ALKarim, Sufyan ElAssouli, Soad, Ali, Nasra Ayuob, Zaki E, Assouli. Effects of low dose acrylamide on the rat reproductive organs structure, fertility and gene integrity. *Asian Pacific Journal of Reproduction* 2015; 4(3): 179-187.
39. Nasra Naeim Ayuob, Noor Ahmed Mubarak Ben Zakar, Fatma Al Qudsi, Soad Shaker Ali and Saleh Karim. Effect of Diabetes on Skin and Brown Fat of Rat Macrosomic Fetuses: Histological and Histochemical Study. *Cytologica.* 2015, 80(1): 101-110. DOI: 10.1508/cytologia.80.1 (IF: 0.242).
40. Ayuob NN, Murad HA, Ali SS. Impaired expression of sex hormone receptors in male reproductive organs of diabetic rat in response to oral antidiabetic drugs. *Folia Histochem Cytobiol.* 2015;53(1):35-48. doi: 10.5603/FHC.a2015.0005. (IF: 1). (Q4)
41. G.A. Abdel-Hamid, N.N. Ayuob. Can raisins ameliorate the hypercholesterolaemia-induced cardiac affection? *Folia Morphol.* 2015, Vol. 74, No. 1, pp. 106-117 DOI: 10.5603/FM.2015.0020. (IF: 0.52). (Q4)
42. Nasra N. Ayuob. Can raisins ameliorate hypercholesterolemia-induced nephropathy? What is the evidence? *The Egyptian Journal of Histology.* 2014 Sep, 37:677-688.
43. Ayuob NN, Al-Harbi MS, Abdulhadi SS. Is the chronic use of Ferula harmonis to enhance mice erectile function effective and safe? A histopathological study. *Syst Biol Reprod Med.* 2014 May 28:1-11. (IF: 1.7). (Q4)

44. Al-Ahmadi AA, Ali SS, **Ayuob NN**, Al Ansary AK. Amelioration of hypercholesterolemia-induced hepatic changes with red grape juice: A histopathological study. *Histol Histopathol.* 2014 Sep;29(9):1169-83. **(IF: 2.28). (Q3)**
45. **Nasra Naeim Ayuob** Hanem Saad Abdel-Tawab and Soad Shaker ALi, Mohammad Abdulwali A1-Hegami, Mohamed Basam Al-Salahy, Hossam Eldin Mohamed Omar. Comparative Study on the Effect of Antioxidants: Alpha-Lipoic Acid and N-Acetyl Cysteine on the structure of Renal Tubules of Diabetic Rabbits. *Egyptian Journal of Histology*, 2014 Jan, 37(1): 56-66.
46. **Nasra Naeim Ayuob**. Can vitamin E and selenium alleviate the immunologic impact of aluminium on pregnant rats' spleens? *Cell Immunol.* 2013 Jul-Aug 284: 104-110. **(IF: 1.743). (Q2)**
47. **Nasra N. Ayuob** and Soad S. Ali. Cell cross-talk and interactions: a review of structure and function. *The Egyptian Journal of Histology*, June 2013. 36(2): 279-284.
48. Noor A. Ben Zakar, Soad S. Ali, **Nasra N. Ayuob** and Saleh Karim. Cellular Changes in Muscles and Liver of Macrosomic Fetuses Born to Diabetes Rats; Histological and Immunohistochemical Study. *Life science journal*, 2013 June; 10 (2). **(IF: 0.165). (Q4)**
49. Hanem S. Abdultawab, **Nasra N. Ayuob**. Can Garlic Oil Ameliorate Diabetes-induced Oxidative Stress in a Rat Liver Model? A Correlated Histological and Biochemical Study. *Food and chemical toxicology*, 2013 Sep; 59:650-6. **(IF: 3.9). (Q1)**
50. Nesreen A. Rajeh, **Nasra N. Ayuob**, and Sufian M. ElAssouli, Nick Plant, Samar M. Al Saggafa. (2012). Acrylamide-mediated subacute testicular and genotoxicity, is it reversible? *Egyptian journal of histology*, 35 (3): 424-436.
51. Soad Shaker Ali, **Nasra Naeim Ayuob**, Abeer Khaled Al Ansary, Ekram Rage Soluman. Antioxidants Protect Against Increased Risk of Atherosclerosis Induced By Exposure to Cigarette Smoke; Histological and Biochemical Study. *Saudi journal of Biological science*. 2012, 19: 291-301. **(IF: 2.8). (Q1)**
52. Ahlam Abdulaziz Al-Ahmadi, **Nasra Naeim Ayuob**, Soad Shaker Ali, Ali Ahmed Al-Robai, Nabil Abdulaziz Abo-Khatwa (2012). Effect of (+)-Usnic Acid as a Fat Burner on the Rat Liver Cell; Correlated Histological and Biochemical in Vivo Study. *Journal of Animal and veterinary Advances (JAVA)*, 11 (9): 1368-1377. **(IF: 0.365). (Q4)**
53. Soad S. Ali, **Nasra N. Ayuob**, Manal M. Shehata and Sanaa M. Abdelalateif (2011). Can Somatotrophs and Thyrotrophs Recover from the Effect of Diazepam after its Withdrawal? An Ultrastructure Study, *JKAU: Med. Sci.* 19 (1): 55-75.

54. Z.K. Al- Gaithy and N.N. Ayuob (2012). Vascular and cellular events in post-mastectomy seroma: An immunohistochemical study, *Cell Immunol.*, 272 130–136. (IF: 1.743). (Q2)
55. Nesreen Rajeh, Samar Al Saggaf, Nasra N. Ayuob and Sufian AlAssouli (2011). Characterization of Acrylamide Mediated Testicular Toxicity in Rat: Light and Electron Microscopic Study. *Kuwait Medical Journal*, 43 (3): 195-204. (IF: 0.027). (Q4).
56. Samar M. Al Saggaf, Soad Shaker, Nasra N. Ayuob, Ashwaq Hassen Batawii and Mohamed Ibrahim Almugaled (2011). Histological study on the effect of gasoline on guinea pig epidermis: can flavonoids extract reverse this effect? *Egyptian journal of histology*, 34 (1): 156-165.
57. Soad S. Ali, Nasra N. Ayuob and Nahid H. Hajrah (2011). Cell Talk: A Phenomenon Observed in Keloid Scar by Immunohistochemical Study. *Applied Immunohistochemistry and Molecular Morphology*, 19 (2), 153–159. (IF: 1.828). (Q3).
58. Z. K. Al Gaithy, S. S. Ali, N. N. Ayuob and N. Alsawy (2010). Local and systemic TNF-alpha level correlation to Histopathology in Post-Mastectomy Seroma In rabbits. *Surgery journal*, 5 (2), 17-21.
59. Soad S. Ali, Nahid H. Hajrah, Nasra N. Ayuob, Sabah S. Moshref and Osama A. Abuzinadah (2010). Morphological and Morphometric Study of Cultured Fibroblast from Treated and Untreated Abnormal Scar. *Saudi medical journal*, 30 (8), 874-81. (IF: 0.619). (Q3)
60. Samar M. Al Saggaf, Soad Shaker, Nasra N. Ayuob, Ghada A. Bdel-Hamid and Nesreen H. AlJahdali (2010). Light and Scanning Microscopic Study of the Effect of Car Fuel (gasoline) Inhalation on Guinea Pig Respiratory System at Station. *Research Journal of Medical Science*, 4 (1), 38-47.
61. Samar O. Rabah, Soad S. Ali, Samar M. Al Saggaf, Nasra N. Ayuob (2010). Acute Taxol toxicity: the effects on Bone Marrow Mitotic Index and the Histology of Mice Hepatocytes. *Journal of Applied Animal Research*, 38, 201-207. (IF: 0.123) (Q4).
62. Samar M. Al Saggaf, Nasra N. Ayuob, Soad Shaker, Mostafa Elhamami (2010). Endoscopic saphenous vein harvesting (ESVH) versus open saphenous vein harvesting (OSVH): A light and electron microscopic study. *Egyptian Journal of Histology*, 33 (2), 396-406.
63. Samar M. Al Saggaf, Soad Shaker, Nasra N. Ayuob (2009). Effect of car fuel (gasoline) inhalation on trachea of guinea pig: Light and scanning microscopic study

under laboratory conditions. Journal of animal and veterinary advances, 8 (11) 2118-2124. (IF: 0.365) (Q4).

## **2- Research in the field of medical education**

64. **Nasra Naeim Ayuob**, Mahdi Ali Qadi, Basem Salama El Deek, Abdulaziz Mohamed Boker. Evaluation of a communication skills training course for medical students using peer role-play. J Pak Med Assoc 2017, 67: 745-751. (IF: 0.54). (Q4)
65. Zeinab Alrefaie , Basem Eldeek and **Nasra Ayuob**. Effect of integrating research skills with basic sciences in an interdisciplinary integrated endocrine module on students' satisfaction and performance. Indian Journal of Pharmaceutical Education and Research. 2017; 51(1):14-19 (IF: 0.54). (Q4)
66. **Nasra N. Ayuob**, Muruj Saleh AlHarthi, Ghadeer Ghazi Alahmadi, Diyaa Hassan Bokhary, Basem S. El Deek. Is the Empathy Level of Medical Students at KAU Changeable along their Study Years? What is behind this Change? Medicine Science 2016;5(2):484-95.
67. **Nasra N. Ayuob**, Maysaa Adnan Banjari, Malak Abdulghafour AlMarghoub, Wa'ad Maher AlQulayti, Basem S. El Deek. Effect of Integrating Research Skills in the Medical Curriculum: A Comparative Cross Sectional Study on Students' Research Practices and Their Perception at King Abdulaziz University, Jeddah. Education in Medicine Journal. 2016; 8(2): 27–39. DOI: 10.5959/eimj.v8i2.409.
68. **Nasra Naeim Ayuob**, Faten Mohamed Al Sayes, Basem Salama El Deek. Extracurricular leadership development programme to prepare future Saudi physicians as leaders. J Pak Med Assoc. 2016, 66: 688-693. (IF: 0.54). (Q4)
69. **Nasra Ayuob**, Sajedah Z. Bahumdain, Zahra A. AL-Najei, Fatimah M. Khobrani, Basem El Deek. Becoming a doctor, what is behind this decision? A comparative study between governmental and private medical School in Saudi Arabia. J Contemp Med Edu. 2015; 3(4): 155-160. doi: 10.5455/jcme.20151222112334.
70. **Ayuob, N. N.**, Aljedaani, A. H., Aljohni, A. H., Almustahi, T. A., Matiouri, H. K., Shawwa, L. A. A. & Deek, B. S. E. (2016). Motives for Saudi junior medical students to study medicine: are there any differences between students in governmental versus private schools?.International Journal of Innovations in Medical Education and Research, 2 (1), 33-39. DOI: 10.5455/ijimer.2016.18112015020.
71. **Nasra N. Ayuob**, Abdulrahman Hilmi Sindi, Basem S. El Deek. Medicine as a career choice: a cross-sectional study on undergraduate medical students at King

Abdulaziz University. Int J Res Med Sci. 2016; 4(2): 593-601. doi: 10.18203/2320-6012.ijrms20160322.

72. Lana Al Shawwa, Mohammed Al-Rabia, **Nasra Ayuob**, Hussein Algahtani. An overview of Faculty Development Program in the Medical Education Department, Faculty of Medicine, King Abdul Aziz University. Education in Medicine Journal 2015, 7(4): 10-18. DOI:10.5959/eimj.v7i4.393.
73. Ismail Ahmed Nemri, Abdullah Khaled Agabawi, Meshal Samir Akel, Ahmed Mohammed Noorelahi, Basem Salama Eldeek, Sarah Saeed Alghamdi, Naif Ali Alghamdi and **Nasra Naeim Ayuob**. Factors affecting the Specialty Choice of Medical Students at King Abdulaziz University in Jeddah, Saudi Arabia. Int J Community Med Public Health, 2015, 2(4):570-575.
74. Basem S. Eldeek, Naif A. Alghamdi, Sarah S. Alghamdi, Logain G. Alghanemi, Wael H. Almaghthawi, Lana Al Shawwa, **Nasra Ayuob**. How does the new developed curriculum affect the perception of medical graduates at King Abdulaziz University about professionalism? Int J Res Med Sci. 2015; 3(7): 1677-1682.
75. Yasmeen Zaki, Basem Eldeek, **Nasra Ayuob**, Safwan Altayeb Reda Jamjoom. Participation of Medical Students in Health Research: Local and International Experiences. Sch. J. App. Med. Sci., 2015; 3(2D):797-801.
76. Muhammed A. Mashat, Nawaf T. Aboalfaraj, Hussam Daghistani, Basem S. Eldeek, **Nasra N. Ayuob**, Lana A. Alshawa. Specialty selection satisfaction and regret among medical school postgraduates and faculty at King Abdulaziz University. International Journal of Research in Medical Sciences, 2015 Apr;3(4):899-904. DOI: 10.5455/2320-6012.ijrms20150415.
77. **Nasra Ayuob**, Basem Eldeek, Seham Gad ElHak and Reda Jamjoom. Enhancing Medical Curriculum Integration from Theory to Practice; Experience of Two Arabic Medical Schools. SYLWAN, 2015 DEC: 158(12): 257-261.
78. Ahmad M.S Almrstani, Basem Eldeek, Hesham Sait, Mohammed Bazarah, **Nasra N. Ayuob**, Ara Tekian. Effect of Birth Simulator-Based Teaching of Vaginal Delivery on Undergraduate Learning and Satisfaction. Jokull Journal, Nov 64, No. 11; Nov 2014.
79. Bassem Aldeek, **Nasra Ayoub**, Reda A. Jamjoom, Saad Almahayawi , Asim T. Al Sharif, Awatef AlSebyani and Mohamed Mashat. Does the Study Guide Represent a Helpful Learning Tool for Medical Students? Students Perspectives. Jokull Journal, Sep 2014, 64, No. 9; 112-122.

80. Abdulaziz M. Boker, **Nasra N. Ayuob**, Salma A. Almashat, Mazen Ismail and Basem S. Eldeek. Is It the Time for the Medical Teacher to use Podcast Lecture? Saudi Medical Students' Perceptions. Wulfenia, Mar 2014, 21 (3): 369-385.
81. Nadia Fida, **Nasra N. Ayuob**, Reem A. Alafari, Mazen A. Ismail, Basem S. Eldeek. Psychometric Properties of PHEEM Questionnaire used to assess the Educational Environment at a Teaching Hospital in Saudi Arabia. MITTEILUNGEN KLOSTERNEUBURG. 2014 April, 64(4): 27-41.
82. Enayat Hashem, **Nasra N. Ayuob**, Hussian Malibary and Basem Eldeek (2013). Experience of Central Nervous System Module Establishment in the Integrated Medical Curriculum at King Abdulaziz University. Research journal of Medical sciences. 7(2): 65-69.
83. Faten El Says, **Nasra Ayuob**, Abdel Rhman Fahmy, Fayza El Fayed, Mohamed Hasanian and Basem El Deek. (2013). Experience of Establishment of Multiple Mini-structured Interview as part of student admission policy at Faculty of Medicine king Abdulaziz University, 2011-2012. MED TEACH: 35 Suppl 1: S74-7. **(IF: 1.824). (Q1)**
84. Samia M. Al-Amoudi, Basem S. Eldeek, **Nasra N. Ayuob**, Wael Alzhrani and Mahmoud S. Alahwal. (2012). Knowledge about Breast Cancer among Male Medical Students, Jeddah, 2011. Life Science Journal, 9(3): 166-170. **(IF: 0.165). (Q4)**
85. Nouf Alsayed, Basem Eldeek, Safwan Tayeb, **Nasra N Ayuob** and Ahmed Al-Harbi. (2012). Research practices and publication obstacles among interns at King Abdulaziz University Hospital, Jeddah, Saudi Arabia, 2011-2012. Journal of the Egyptian Public Health Association; 87 (3,4):64-70.
86. **Nasra N Ayuob**, Basem S Eldeek, Lana A Alshawa and Abdulrahman F ALSaba. (2012). Interdisciplinary Integration of the CVS Module, Its Effect on Faculty and Student Satisfaction as well Student performance. BMC MED EDUC.; 12:50. **(IF: 1.409). (Q2)**
87. Basem S. Eldeek, **Nasra N. Ayuob**, Lana A. Alshawa, Nora Alshareef and Rakan. Bokhari. (2012). Impact of medical curriculum on conceptualization of professionalism by residents at a University Hospital, Jeddah, Saudi Arabia. Journal of the Egyptian Public Health Association; 87 (3,4): 45-50.
88. Faten M. Al-Sayes, Basem S. El-Deek, **Nasra N. Ayuob**, Hatem M. Al Ahwal, and Ahmed S. Barefaa (2011). Perception of medical students at King Abdulaziz University regarding the courses studied during the foundation year. JKAU: Med. Sci. 2012; 19 (4): 73-84.

89. Nasra N. Ayuob, Basem S. El-Deek and Amro M. Al-Hibshi (2011). Perception of the medical students at King Abduleaziz University of clinical skills module that preparing them for the clerkships. Asian journal of medical science, 3 (3): 125-130.
90. Adnan A. Al-Mazrooa, Abdulaziz M.Boker, Basem S. El-Deek and Nasra N. Ayuob (2011). Perceptions of Medical Students in King Abdulaziz University about Teaching and Learning Modalities; Comparative Cross Sectional Study between Traditional and System-based Curriculum. JKAU: Med. Sci., 18 (3): 17-28.
91. Amro Hibshi, Basem Eldeek, Nasra Ayuob and Omyma Aboella (2010). Students' perceptions about their preparedness to the clinical phase of a medical curriculum with preclinical clinical skill course: a comparative study. Research Journal of Medical Science, 4 (6), 346-351.
92. Adnan A. Al-Mazrooa, Abdulaziz M.Boker, Basem S. El-Deek and Nasra N. Ayuob. (2010). Introducing Problem-Based Learning, Experience at the Faculty of Medicine, King Abdulaziz University. JKAU: Med. Sci., 17 (1), 43-51.
93. Samar M. Al Saggaf, Soad Shaker, Nasra N. Ayuob, Basem Salama Eldeek and Amira El-haggagy (2010). A Model of Horizontal and Vertical Integration teaching on Cadaveric Heart. ANN ANAT 192, 346-351. **(IF: 2.2). (Q2)**
94. Al-Hayani A., Al-Mazrooa A., El-deek B., and Ayuob N. (2010). Applying the Total Quality Management (TQM) Model and the Holistic Model for Quality Management in Higher Education; Pros and Cons. Research Journal of Medical Sciences, 4(2), 102-106.
95. Al-Hayani A., Al-Mazrooa A., El-deek B., and Ayuob N. (2010). An Overview of Total Quality Management at King Abdel Aziz University College of Medicine. Research Journal of Medical Sciences, 4(2), 57-63.

### Training courses, Symposia and Conferences

#### In the field of medical education

##### i. Workshops (as speaker):

| Name of the Workshop  | Place of Issue and date   |
|---|---|
| 1. "Formulating sound intended Learning Outcomes & Compiling Course Specifications and report". | During the 2 <sup>nd</sup> semester 2009 to department & module coordinators in the Faculty of Medicine - King Abdul Aziz University. |

|  |  |
|--|--|
| 2. "Six steps approach of evidence based assessment" presented.                    | During the 1 <sup>st</sup> semester of 2010, to all the departments (basic science and clinical) and modules of the Faculty of Medicine - King Abdul Aziz University |
| 3. "Teaching skills".  | 8,9/8/2010, Faculty of Medicine – Mansoura University  |
| 4. "Module construction and how to validate Exam paper"                            | 10/8/2010, Faculty of Medicine – Mansoura University   |
| 5. "Integrated curriculum"   | October, 2010, Faculty of Medicine – King Abdul Aziz University  |
| 6. "Tips of research methodology"  | 13/3/2011, Faculty of Medicine – King Abdul Aziz University  |
| 7. "Item construction rather than type A MCQ"                                      | 27/3/2011, Faculty of Medicine – King Abdul Aziz University  |
| 8. "Six quality criteria for assessment and item analysis"                         | 3/4/2011, Faculty of Medicine – King Abdul Aziz University   |
| 9. "Introduction On New Curriculum For New Comers"                                 | 8/3/2011, Faculty of Medicine – King Abdul Aziz University   |
| 10. "Sample size and power of the study calculation"                               | 15/5/2011, Faculty of Medicine – King Abdul Aziz University  |
| 11. "Six steps approach for standardizing students assessment"                     | 5/5/2011, Faculty of Medicine – King Abdul Aziz University   |
| 12. Introduction to the new curriculum (Teaching, Learning and student assessment) | 10/5/2011 Faculty of Medicine – King Abdul Aziz University   |
| 13. Towards more integration   | 20/11/2011 Faculty of Medicine – King Abdul Aziz University  |
| 14. Assessment tool Box  | 14/12/2011 Faculty of Medicine – King Abdul Aziz University  |
| 15. Enhancing Integration through Assessment                                       | 11/2/2012 Faculty of Medicine – King Abdul Aziz University   |
| 16. Improving the quality of the exam paper  | 7/3/2012 Faculty of Medicine – King Abdul Aziz University  |
| 17. Application of Research Methodology In Medical Education                       | 20-22/2/2012, 2014 Faculty of Medicine – King Abdul Aziz University  |
| 18. How to Publish in ISI Listed Journals?   | 8/4/2012, 2014 Faculty of Medicine – King Abdul Aziz University  |
| 19. Application of biostatistics in medical education                              | 18-19-20/3/2012, 2014, 2016 Faculty of Medicine – King Abdul Aziz University   |

|  |  |
|--|--|
| 20. Introduction to the new curriculum                       | 18/9/2012-2016 Faculty of Medicine - King Abdul Aziz University                  |
| 21. Learning in small group                                  | 9-10/10/2012, 2015 Faculty of Medicine - King Abdul Aziz University              |
| 22. What is Self-directed learning (SDL)?                    | 23/11/2012, 2014 Faculty of Medicine - King Abdul Aziz University                |
| 23. Research in medical education                            | 9/9/2013 Faculty of Medicine - King Abdul Aziz University                        |
| 24. Integrated curriculum better understanding & application | 26/9/2012, 2013, 2015 Faculty of Medicine - King Abdul Aziz University           |
| 25. Study guide, better understand and application           | 13/2/2013 Faculty of Medicine - King Abdul Aziz University                       |
| 26. Designing an assessment plan                             | 10/3/2013, 2015 Faculty of Medicine - King Abdul Aziz University                 |
| 27. Psychometric item analysis                               | 10/4/2013, 2014, 2015 Faculty of Medicine - King Abdul Aziz University           |
| 28. Assessment continuum                                     | November 2013 Faculty of Medicine - King Abdul Aziz University                   |
| 29. Exam blueprint   | December 2013, 2014, 2015, 2016 Faculty of Medicine - King Abdul Aziz University |
| 30. Item Construction  | January 2014, 2015 Faculty of Medicine - King Abdul Aziz University              |
| 31. Small group learning                                     | February 2014, 2015 Faculty of Medicine - King Abdul Aziz University             |
| 32. Case-based integrated assessment                         | February 2014, 2015 Faculty of Medicine - King Abdul Aziz University             |
| 33. Standards of teaching & learning                         | March 2014 Faculty of Medicine - King Abdul Aziz University                      |
| 34. Researches in medical education                          | April 2014 Faculty of Medicine - King Abdul Aziz University                      |
| 35. Quality assurance of learning outcome according to NCAAA | October 2014, 2015 CTLD, Faculty of Medicine - King Abdul Aziz University        |
| 36. Designing Research Studies                               | October 2014 CTLD, Faculty of Medicine - King Abdul Aziz University              |
| 37. Exam blueprint and item analysis, Hands on workshop      | November 2014 CTLD, Faculty of Medicine - King Abdul Aziz University             |
| 38. Principles of students assessment (twice)                | November 2014, 2015 CTLD, Faculty of Medicine - King Abdul Aziz University       |
| 39. Mixed method research in health education                | December 2014 CTLD, Faculty of Medicine - King Abdul Aziz University             |

|   |   |
|---|---|
| 40. Best practice of students assessment according to NCAAA | November 2014, 2015 CTLD, Faculty of Medicine – King Abdul Aziz University                        |
| 41. Principals of medical students assessment               | October 2016- January 2017, Faculty of Medicine – Mansoura University, Egypt (10 times)           |
| 42. Best practice of MCQs and structured essay writing      | February 2017- April 2017, Faculty of Medicine – Mansoura University, Egypt (4 times)             |
| 43. Principals of OSPE construction                         | August 2018, February 2019- June 2019, Faculty of Medicine – Mansoura University, Egypt (3 times) |

ii. **Workshops and training courses (attendant)**

| Name of the workshop  | Place and date  |
|---|---|
| 1. Quality Assurance in Scientific Research                               | Conference at Mansoura University , March 17 – 19, 2004   |
| 2. Medical Education & Evaluation   | Conference at Mansoura University, May 18 – 19, 2006      |
| 3. Inauguration of the centre of Excellence for Osteoporosis Research     | King Abdulaziz University (KAU) 18 November, 2008         |
| 4. ملتقى الانتاج الأكاديمي الرابع بجامعة الملك عبد العزيز لعام 1429 -1430 | KAU, 1430-1429  |
| 5. Research of Hereditary Disorders                                       | King Faisal Research Centre , 3 <sup>rd</sup> March 2009. |
| 6. دوره المجهر الإلكتروني النظرية والتطبيق.                               | جامعة الملك عبد العزيز كلية العلوم                        |
| 7. Balanced Score Card  | KAU from 10 March 2009                                    |
| 8. Good Clinical Practice Course  | February 2009   |
| 9. Student Assessment Strategy Workshop                                   | KAU on 2 – 3 June 2009                                    |
| 10. Course Portfolio  | KAU from 3 – 4 march 2009                                 |
| 11. Student Assessment Made Easy  | KAU on 2 – 3 November 2009                                |
| 12. Mini CEX Training   | KAU 11 January 2010                                       |
| 13. Simulation in Health Education  | KAU 9 January 2010  |
| 14. Examiner Preparation Course   | KAU 12 January 2010                                       |
| 15. Principles of leadership  | KAU 2012  |
| 16. Research methods  | KAU 2013  |

|                                       |           |
|---------------------------------------|-----------|
| 17. Principles of students assessment | KAU, 2013 |
| 18. Assessment for learning           | KAU, 2015 |

**Conferences:**

- Participation in the scientific conference of faculty of Medicine, Mansoura University (1996-2002).
- Alazher University, Male section Domiate, "A bright spot on the Map of Medicine in Egypt", 2019.
- Alazher University, Male section Domiate, "Challenges in implementing high quality of integrated medical education, 2018.
- The 4rd International Conference On Quality Chair Of P.M. And Evidence Based In Prophetic Medicine, Feb, 2020.
- 

**Future career and professional intensions**

I am applying in the fellowship of ASU-MENA-FRI (Ain Shams University Middle East North Africa-FAIMER Regional Institute) in order to continuously develop my experience in the field of medical education.