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**Nationality** : Saudi  
**Address** : King Saud University.

College of Science, Zoology Dept.  
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### **Educational Qualifications**

1994. B.Ed.	King Saud University, Riyadh, Saudi Arabia.
2000. MSc.	King Saud University, Riyadh, Saudi Arabia.
2007. PhD.	The University of Manchester, Manchester, UK.
2009. PGCAP	Postgraduate Certificate in Academic Practice in Higher Education, King's College, London, UK.
2013. Diploma	Institute of Anatomy, Bern University, Bern, Switzerland.

### **Appointments:**

2016- present	Professor of Physiology
2012 – 2016	Associate professor, Zoology.
2007 – 2012	Assistant professor, Zoology.
2009 – 2011	Director of Nobel Laureate Program in KSU.
2009	Director of Fetal Programming Research Chair.
2001 – 2007	Lecturer, Dept. of Zoology, King Saud University.
2000 – 2001	Head of Science Department, College of Teachers.
1994 – 2000	Teaching Assistant Dept. of Biology, College of Teachers.

### **Membership of Scientific Societies**

- Saudi Biological Society.
- The physiological Society.
- DOHaD Society.

## **Publication**

### **Books:**

Barker DJP, Erikson JG, Kajantie E, **Alwasel SH**, Fall CHD, Roseboom TJ, Osmond C. The maternal and placental origins of chronic disease. A chapter in: Placental programming of chronic disease. 2010, Cambridge University press, Cambridge.

**Alwasel SH** and Alhadlaq S. Preparing Middle Eastern Students for the Future: Saudi Arabia as a Case Study. A chapter in: Handbook of College and University Teaching, A Global Prospective. 2012, SAGE, USA

### **Full articles**

1. Gulçin İ, Abbasova M, Taslimi P, Huyut Z, Safarova L, Sujayev A, Farzaliyev V, Beydemir Ş, **Alwasel SH**, Supuran CT. Synthesis and biological evaluation of aminomethyl and alkoxyethyl derivatives as carbonic anhydrase, acetylcholinesterase and butyrylcholinesterase inhibitors. *J Enzyme Inhib Med Chem.* 2017 Dec;32(1):1174-1182. doi: 10.1080/14756366.2017.1368019. PubMed PMID: 28891347
2. Sirotnik AV, Fabian D, Babelová Kubandová J, Vlčková R, **Alwasel S**, Harrath AH. Metabolic state can define the ovarian response to environmental contaminants and medicinal plants. *Appl Physiol Nutr Metab.* 2017 Aug 3. doi: 10.1139/apnm-2017-0262. [Epub ahead of print] PubMed PMID: 28772093.
3. Govindan B, Swarna Latha B, Nagamony P, Ahmed F, Saifi MA, Harrath AH, **Alwasel S**, Mansour L, Alsharaeh EH. Designed Synthesis of Nanostructured Magnetic Hydroxyapatite Based Drug Nanocarrier for Anti-Cancer Drug Delivery toward the Treatment of Human Epidermoid Carcinoma. *Nanomaterials (Basel).* 2017 Jun 6;7(6). pii: E138. doi: 10.3390/nano7060138. PubMed PMID: 28587317; PubMed Central PMCID: PMC5485785
4. Taslimi P, Osmanova S, Gulçin İ, Sardarov S, Farzaliyev V, Sujayev A, Kaya R, Koc F, Beydemir S, **Alwasel SH**, Kufrevioglu OI. Discovery of potent carbonic anhydrase, acetylcholinesterase, and butyrylcholinesterase enzymes inhibitors: The new amides and thiazolidine-4-ones synthesized on an acetophenone base. *J Biochem Mol Toxicol.* 2017 Sep;31(9). doi: 0.1002/jbt.21931. Epub 2017 May 22. PubMed PMID: 28544359
5. Harrath AH, Semlali A, Mansour L, Aldahmash W, Omar SYA, Anazi MSA, Nyengaard JR, **Alwasel S**. Dynamics of Cytokine-like Activity in the Hyperplastic Ovary of Ex-fissiparous Planarians. *Biol Bull.* 2017 Feb;232(1):12-18. doi: 10.1086/691408. Epub 2017 Apr 5. PubMed PMID: 28445093.
6. Taslimi P, Sujayev A, Garibov E, Nazarov N, Huyut Z, **Alwasel SH**, Gulçin İ. Synthesis of new cyclic thioureas and evaluation of their metal-chelating activity, acetylcholinesterase, butyrylcholinesterase, and carbonic anhydrase inhibition profiles. *J*

Biochem Mol Toxicol. 2017 Jan 24. doi: 10.1002/jbt.21897. [Epub ahead of print] PubMed PMID: 28117934.

7. Taslimi P, Sujayev A, Mamedova S, Kalın P, Gulçin İ, Sadeghian N, Beydemir S, Kufrevioglu OI, **Alwasel** SH, Farzaliyev V, Mamedov S. Synthesis and bioactivity of several new hetaryl sulfonamides. J Enzyme Inhib Med Chem. 2017 Dec;32(1):137-145. doi: 10.1080/14756366.2016.1238367. PubMed PMID: 28100082.
8. Ceylan M, Kocyigit UM, Usta NC, Gürbüzlü B, Temel Y, **Alwasel** SH, Gülçin İ. Synthesis, carbonic anhydrase I and II isoenzymes inhibition properties, and antibacterial activities of novel tetralone-based 1,4-benzothiazepine derivatives. J Biochem Mol Toxicol. 2017 Apr;31(4). doi: 10.1002/jbt.21872. Epub 2016 Oct 25. PubMed PMID: 27780313.
9. Tohma H, Köksal E, Kılıç Ö, Alan Y, Yılmaz MA, Gülcin İ, Bursal E, **Alwasel** SH. RP-HPLC/MS/MS Analysis of the Phenolic Compounds, Antioxidant and Antimicrobial Activities of Salvia L. Species. Antioxidants (Basel). 2016 Oct 21;5(4). pii: E38. PubMed PMID: 27775656; PubMed Central PMCID: PMC5187536.
10. Ekinci Akdemir FN, Gülcin İ, Karagöz B, Soslu R, **Alwasel** SH. A comparative study on the antioxidant effects of hesperidin and ellagic acid against skeletal muscle ischemia/reperfusion injury. J Enzyme Inhib Med Chem. 2016;31(sup4):114-118. Epub 2016 Aug 23. PubMed PMID: 27555116.
11. Alomar SY, Mansour L, Abuderman A, Alkhuriji A, Arafah M, **Alwasel** S, Harrath AH, Almutairi M, Trayhurn P, Dar JA. β-Catenin accumulation and S33F mutation of CTNNB1 gene in colorectal cancer in Saudi Arabia. Pol J Pathol. 2016 Jun;67(2):156-62. PubMed PMID: 27543871.
12. Garibov E, Taslimi P, Sujayev A, Bingol Z, Çetinkaya S, Gülcin İ, Beydemir S, Farzaliyev V, **Alwasel** SH, Supuran CT. Synthesis of 4,5-disubstituted-2-thioxo-1,2,3,4-tetrahydropyrimidines and investigation of their acetylcholinesterase, butyrylcholinesterase, carbonic anhydrase I/II inhibitory and antioxidant activities. J Enzyme Inhib Med Chem. 2016;31(sup3):1-9. Epub 2016 Jun 22. PubMed PMID: 27329935.
13. Dinicola S, Fabrizi G, Masiello MG, Proietti S, Palombo A, Minini M, Harrath AH, **Alwasel** SH, Ricci G, Catizone A, Cucina A, Bizzarri M. Inositol induces mesenchymal-epithelial reversion in breast cancer cells through cytoskeleton rearrangement. Exp Cell Res. 2016 Jul 1;345(1):37-50. doi: 10.1016/j.yexcr.2016.05.007. Epub 2016 May 26. PubMed PMID: 27237097.
14. Pasta V, Dinicola S, Giuliani A, Harrath AH, **Alwasel** SH, Tartaglia F, Cucina A, Bizzarri M. A randomized trial of Boswellia in association with betaine and myo-inositol in the management of breast fibroadenomas. Eur Rev Med Pharmacol Sci. 2016 May;20(9):1860-5. PubMed PMID: 27212181.
15. Bizzarri M, Cucina A, Dinicola S, Harrath AH, **Alwasel** SH, Unfer V, Bevilacqua A. Does myo-inositol effect on PCOS follicles involve cytoskeleton regulation? Med Hypotheses. 2016 Jun;91:1-5. doi: 10.1016/j.mehy.2016.03.014. Epub 2016 Apr 4. PubMed PMID: 27142131.

16. Sujayev A, Garibov E, Taslimi P, Gülcin İ, Gojayeva S, Farzaliyev V, **Alwasel** SH, Supuran CT. Synthesis of some tetrahydropyrimidine-5-carboxylates, determination of their metal chelating effects and inhibition profiles against acetylcholinesterase, butyrylcholinesterase and carbonic anhydrase. *J Enzyme Inhib Med Chem.* 2016 Dec;31(6):1531-9. doi: 10.3109/14756366.2016.1156104. Epub 2016 Mar 28. PubMed PMID: 27050248.
17. Pasta V, Dinicola S, Giuliani A, Harrath AH, **Alwasel** SH, Tartaglia F, Cucina A, Bizzarri M. A Randomized Pilot Study of Inositol in Association with Betaine and Boswellia in the Management of Mastalgia and Benign Breast Lump in Premenopausal Women. *Breast Cancer (Auckl).* 2016 Apr 20;10:37-43. doi: 10.4137/BCBCR.S38408. eCollection 2016. PubMed PMID: 27127407; PubMed Central PMCID: PMC4839963.
18. Suliman Y, Al Omar1, Afrah Alkuriji1, Saleh **Alwasel**, Javid Ahmed Dar2, Alwaleed Alhammad3, Stephen Christmas4 and Lamjed Mansour. (2016) Genotypic diversity of the Killer Cell Immunoglobulin-like Receptors (KIR) and their HLA class I Ligands in a Saudi population. *Genetics and Molecular Biology,* 39, 1, 14-23
19. Yılmaz S, Akbaba Y, Özgeriş B, Köse LP, Göksu S, Gülcin İ, **Alwasel** SH, Supuran CT. (2016) Synthesis and inhibitory properties of some carbamates on carbonic anhydrase and acetylcholine esterase. *J Enzyme Inhib Med Chem.* 17:1-8.
20. Gülcin İ, Scozzafava A, Supuran CT, Koksal Z, Turkan F, Çetinkaya S, Bingöl Z, Huyut Z, **Alwasel** SH. (2016) Rosmarinic acid inhibits some metabolic enzymes including glutathione S-transferase, lactoperoxidase, acetylcholinesterase, butyrylcholinesterase and carbonic anhydrase isoenzymes. *J Enzyme Inhib Med Chem.* 10:1-5.
21. Skeldal S, Kjaergaard MM, **Alwasel** S, Nyengaard JR. (2015) Establishing a cellular FRET-based fluorescence plate reader assay to monitor proNGF-induced cross-linking of sortilin and the neurotrophin receptor p75(NTR). *Int J Biochem Mol Biol.* 6(2):17-25.
22. Dinicola S, Pasqualato A, Proietti S, Masiello MG, Palombo A, Coluccia P, Canipari R, Catizone A, Ricci G, Harrath AH, **Alwasel** SH, Cucina A, Bizzarri M. (2015) Paradoxical E-cadherin increase in 5FU-resistant colon cancer is unaffected during mesenchymal-epithelial reversion induced by γ-secretase inhibition. *Life Sciences.* 145:174-83
23. Gülcin İ, Yıldırım A, Atmaca U, Çelik M, **Alwasel** SH, Supuran CT. (2015) The human carbonic anhydrase isoenzymes I and II inhibitory effects of some hydroperoxides, alcohols, and acetates. *J Enzyme Inhib Med Chem.* 18:1-6.
24. Pasta V, Gullo G, Giuliani A, Harrath AH, **Alwasel** SH, Tartaglia F, Cucina A, Bizzarri M. (2015) An association of boswellia, betaine and myo-inositol (Eumastós®) in the treatment of mammographic breast density: a randomized, double-blind study. *Eur Rev Med Pharmacol Sci.* 19(22):4419-26
25. Sujayev A, Polat Kose L, Garibov E, Gülcin İ, Farzaliyev V, **Alwasel** SH, Supuran CT. (2015) Synthesis of N-alkyl (aryl)-tetra pyrimidine thiones and investigation of their human carbonic anhydrase I and II inhibitory effects. *J Enzyme Inhib Med Chem.* 19:1-6.
26. Gülcin İ, Scozzafava A, Supuran CT, Akıncıoğlu H, Koksal Z, Turkan F, **Alwasel** S. (2015) The effect of caffeic acid phenethyl ester (CAPE) on metabolic enzymes including

acetylcholinesterase, butyrylcholinesterase, glutathione S-transferase, lactoperoxidase, and carbonic anhydrase isoenzymes I, II, IX, and XII. *J Enzyme Inhib Med Chem.* 9:1-7

27. Al Omar SY, Mansour L, Dar JA, **Alwasel** S, Alkhuriji A, Arafah M, Al Obeed O, Christmas S. (2015) The Relationship Between Killer Cell Immunoglobulin-Like Receptors and HLA-C Polymorphisms in Colorectal Cancer in a Saudi Population. *Genet Test Mol Biomarkers.* 19(11):617-22.
28. Ben Ali MJ, Guesmi F, Harrath AH, **Alwasel** S, Hedfi A, Ncib S, Landoulsi A, Aldahmash B, Ben-Attia M. (2015) Investigation of Antiulcer and Antioxidant Activity of Juniperus phoenicea L. (1753) Essential Oil in an Experimental Rat Model. *Biol Pharm Bull.* 38(11):1738-46
29. Sirotkin AV, Kardošová D, **Alwasel** SH, Harrath AH. (2015) Neuropeptide Y directly affects ovarian cell proliferation and apoptosis. *Reprod Biol.* 15(4):257-60.
30. Topal F, Nar M, Gocer H, Kalin P, Kocyigit UM, Gülçin İ, **Alwasel** SH. (2015) Antioxidant activity of taxifolin: an activity-structure relationship. *J Enzyme Inhib Med Chem.* 6:1-10.
31. Kose LP, Gülçin İ, Özdemir H, Atasever A, **Alwasel** SH, Supuran CT. (2015) The effects of some avermectins on bovine carbonic anhydrase enzyme. *J Enzyme Inhib Med Chem.* 24:16
32. Harrath AH, **Alwasel** S, Khaled I, Mansouri L, Sirotkin AV, Faramawi MF. (2015) Pregnancy exposure to atmospheric pollutants and placental weight in a Tunisian population. *Fresenius Environmental Bulletin.* 24 (11): 4184-4189.
33. Taslimi P, Gülçin İ, Öztaşkın N, Çetinkaya Y, Göksu S, **Alwasel** SH, Supuran CT. (2015) The effects of some bromophenols on human carbonic anhydrase isoenzymes. *J Enzyme Inhib Med Chem.* 2:1-5Ben
34. Ahmed R, Gammoudi M, Khaled I, Tekaya S, Mansour L, **Alwasel** S, Harrath AH. (2015) Annotations on marine and freshwater leeches (Annelida, Clitellata, Hirudinea) from North Africa. *Tropical Zoology.* 28 (2) 71-93.
35. Sirotkin AV, Alexa R, Dekanova P, Kadasi A, Stochmalova A, Grossmann R, **Alwasel** SH, Harrath AH. (2015) The mTOR System Can Affect Basic Ovarian Cell Functions and Mediate the Effect of Ovarian Hormonal Regulators. *International Journal of Pharmacology.* 11(6) 570-578. Aydin B, Gulcin I,
36. **Alwasel** SH. (2015) Purification and Characterization of Polyphenol Oxidase from Hemsin Apple (*Malus communis* L.). *International Journal of Food Properties.* 18 (12) 2735-2745.
37. Gocer H, Topal F, Topal M, Küçük M, Teke D, Gülçin İ, **Alwasel** SH, Supuran CT. (2015) Acetylcholinesterase and carbonic anhydrase isoenzymes I and II inhibition profiles of taxifolin. *J Enzyme Inhib Med Chem.* 31(3):441-7.
38. Topal M, Gocer H, Topal F, Kalin P, Köse LP, Gülçin İ, Çakmak KC, Küçük M, Durmaz L, Gören AC, **Alwasel** SH. (2015) Antioxidant, antiradical, and anticholinergic properties of cynarin purified from the Illyrian thistle (*Onopordum Illyricum* L.). *J Enzyme Inhib Med Chem.* 31(2):266-75.

39. Taslimi P, Gulcin I, Ozgeris B, Goksu S, Tumer F, **Alwasel** SH, Supuran CT. (2015) The human carbonic anhydrase isoenzymes I and II (hCA I and II) inhibition effects of trimethoxyindane derivatives. *J Enzyme Inhib Med Chem.* 31(1):152-7.
40. Al Omar SY, Mansour L, Alkhuriji AF, **Alwasel** S, Al-Qahtani S. (2015) Genetic association between the HLA-G 14-bp insertion/deletion polymorphism and the recurrent spontaneous abortions in Saudi Arabian women. *Genet Mol Res.* 14(1):286-93.
41. Scozzafava A, Kalin P, Supuran CT, Gülçin İ, **Alwasel** SH. (2015) The impact of hydroquinone on acetylcholine esterase and certain human carbonic anhydrase isoenzymes (hCA I, II, IX, and XII). *J Enzyme Inhib Med Chem.* 30(6):941-6.
42. Mansour L, Harrath AH, AbdelBaki AAS, **Alwasel** S, AlQuraishy S, Al Omar SY. (2015) *Kudoa saudiensis* sp n. (Myxosporea: Multivalvulida) infecting oocytes of the Indian mackerel *Rastrelliger kanagurta* (Perciformes: Scombridae). *Folia parasitological.* 91:91-99
43. Sirotnik AV, Alexa R, Kišová G, Harrath AH, **Alwasel** S, Ovcharenko D, Mlynček M. (2015) MicroRNAs control transcription factor NF- $\kappa$ B (p65) expression in human ovarian cells. *Funct Integr Genomics.* 15(3):271-5.
44. Harrath AH, Semlali A, Mansour L, Ahmed M, Sirotnik AV, Al Omar SY, Arfah M, Al Anazi MS, Alhazza IM, Nyengaard JR, **Alwasel** S. Infertility in the hyperplasic ovary of freshwater planarians: the role of programmed cell death. *Cell Tissue Res.* 2014 Nov;358(2):607-20. doi: 10.1007/s00441-014-1971-0. Epub 2014 Aug 9. PubMed PMID: 25107610.
45. Sirotnik AV, Dekanová P, Harrath AH, **Alwasel** SH, Vašíček D. Interrelationships between sirtuin 1 and transcription factors p53 and NF- $\kappa$ B (p50/p65) in the control of ovarian cell apoptosis and proliferation. *Cell Tissue Res.* 2014 Nov;358(2):627-32. doi: 10.1007/s00441-014-1940-7. Epub 2014 Jul 16. PubMed PMID: 25027053.
46. Harrath AH, Gammoudi M, Mansour L, Ahmed M, Sirotnik AV, Al Omar SY, Ibrahim KE, **Alwasel** SH. Investigation of the ultrastructure of *Dendrocoelum constrictum* (Platyhelminthes, Tricladida) spermatogenesis and mature spermatozoa. *C R Biol.* 2014 Sep;337(9):513-20. doi: 10.1016/j.crvi.2014.07.004. Epub 2014 Aug 12. PubMed PMID: 25242690.
47. Arabaci B, Gulcin I, **Alwasel** S. Capsaicin: a potent inhibitor of carbonic anhydrase isoenzymes. *Molecules.* 2014 Jul 10;19(7):10103-14. doi: 10.3390/molecules190710103. PubMed PMID: 25014536.
48. **Alwasel** SH, Harrath AH, Aldahmash WM, Abotalib Z, Nyengaard JR, Osmond C, Dilworth MR, Al Omar SY, Jerah AA, Barker DJ. Sex differences in regional specialisation across the placental surface. *Placenta.* 2014 Jun;35(6):365-9. doi: 10.1016/j.placenta.2014.03.003. Epub 2014 Mar 14. PubMed PMID: 24709557.
49. Mansour L, Harrath AH, Abd-Elkader OH, **Alwasel** S, Abdel-Baki AA, Al Omar SY. Structural and molecular characterization of *Kudoa quraishii* n. sp. from the trunk muscle of the Indian mackerel *Rastrelliger kanagurta* (Perciforme, Scombridae) in Saudi Arabia

- coasts. Parasitol Res. 2014 Apr;113(4):1361-70. doi: 10.1007/s00436-014-3775-2. Epub 2014 Feb 2. PubMed PMID: 24488108.
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51. Bashandy, Samir; **Alwasel**, Saleh; Morsy, Fatma.; Alhazza, Ibrahim. Maternal food restriction during pregnancy induces oxidative stress, vascular defects, cardimyocytes pathology in male rats offspring. Australian Journal of Basic and Applied Sciences2013.
52. Pavlová S, Klucska K, Vašíček D, Ryban L, Harrath AH, **Alwasel** SH, Sirotkin AV. The involvement of SIRT1 and transcription factor NF-κB (p50/p65) in regulation of porcine ovarian cell function. Anim Reprod Sci. 2013 Aug;140(3-4):180-8. doi: 10.1016/j.anireprosci.2013.06.013. Epub 2013 Jul 6. PubMed PMID: 23886618.
53. Mukhtar Ahmed, Nasser Al-Daghri, Abdul Halim Harrath, Ravindranath H Aladakatti, **Alwasel** SH G Ghodesawar, 2013. Potential Ultrastructural Changes in Rat Epididymal Cell Types Induced by *B. papyrifera* and *B. carterii*. C. R. Biologies.
54. Silvia Pavlová, Karolina Klucska, Dušan Vašíček, Luboš Ryban, Abdul Halim Harrath , Saleh Hamad **Alwasel**, Alexander V. Sirotkin. 2013. The involvement of SIRT1 and transcription factor NF-κB (p50/p65) in regulation of porcine ovarian cell function. Anim Reprod Sci. DOI:<http://dx.doi.org/10.1016/j.anireprosci.2013.06.013>
55. Al Omar Suliman Y, Daoud Ali, Saud Alarifi, Abdul Halim Harrath, Lamjed Mansour, Saleh Hamad **Alwasel**. 2013. Evaluation of cytotoxic, oxidative stress, proinflammatory and genotoxic effect of silver nanoparticles in human lung epithelial cells. Environ Toxicol. doi: 10.1002/tox.21880.
56. **Alwasel** SH, Harrath AH, Aljarallah JS, Abotalib Z, Osmond C, Al Omar SY, Thornburg K, Barker DJ. 2013. The velocity of fetal growth is associated with the breadth of the placental surface, but not with the length. Am J Hum Biol, 25(4):534-7.doi: 10.1002/ajhb.22405.
57. **Alwasel** S. H., Harrath A. H., Abotalib Z., Aljarallah J.S., Osmond C., Al Omar S. Y., Barker D.J.P. 2013. Intergenerational effects of in utero exposure to Ramadan in Tunisia. Am J Hum Biol., doi: 10.1002/ajhb.22374.
58. Abdul Halim Harrath; Mukhtar Ahmed, Shaban Rushdy Sayd, Muheet Alam Saifi & Saleh **Alwasel**. 2013. Ultrastructural study of oogenesis and cell dynamics during cocoon secretion in the subterranean freshwater planarian *Dendrocoelum constrictum* (Platyhelminthes, Paludicola). Tissue Cell, 45: 39– 46.
59. **Alwasel** S. H., Abotalib Z., Aljarallah J.S., Osmond C., Al Omar S. Y., Harrath A. H., Thornburg K., Barker D.J.P. 2012. The breadth of the placental surface but not the length is associated with body size at birth. Placenta, 33: 619-622
60. Abdul Halim Harrath, Ronald Sluys, Adnen Ghlala, and Salah **Alwasel**, 2012. The first subterranean freshwater planarians from North Africa, with an analysis of adenodactyl

- structure in the genus *Dendrocoelum* (Platyhelminthes, Tricladida, Dendrocoelidae). *J. Cave Karst. Stud.*, 74 (1): 48–57. DOI: 10.4311/2011LSC0215.
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62. Abdul Halim Harrath, Ronald Sluys, Djemoi Merzoug, Mohamed Yacoubi-Khebiza, Saleh **Alwasel**, Marta Riutort 2012. Freshwater planarians (Platyhelminthes, Tricladida) from the Palearctic section of the African continent: new records, with the description of a new species. *Zootaxa* 3182: 1–15.
63. Abdul Halim Harrath; Saleh **Alwasel**; Ibrahim Alahzza; Fathia Zghal; Saïda Tekaya, 2011. An ultrastructural study of oogenesis in the planarian *Schmidtea mediterranea* (Platyhelminthe, Paludicola). *CR Biologies*, 334 (7): 516-525.
64. **Alwasel** S. H., Abotalib Z., Aljarallah J.S., Osmond C., Alkharaz S. M., Alhazza I. M., Harrath A. H., Thornburg K., Barker D.J.P. 2011. Sex differences in fetal growth in Saudi Arabia. *Am J Hum Biol.*, 23(5):651-4.
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66. Samir Bashandy and Saleh **Alwasel**. 2011 Carbon tetrachloride-induced hepatotoxicity and nephrotoxicity in rats: protective role of vitamin C. *Journal of pharmacology and Toxicology*
67. **Alwasel** SH, Abotalib Z, Aljarallah JS, Osmond C, Alkharaz SM, Alhazza IM, Badr G, Barker DJ. (2010) Changes in placental size during Ramadan. *Placenta*. (7):607-10.
68. **Alwasel** SH, Kaleem I, Sahajpal V, Ashton N. (2010) Maternal Protein Restriction Reduces Angiotensin II AT(1) and AT(2) Receptor Expression in the Fetal Rat Kidney. *Kidney Blood Press Res*. 33(4):251-259.
69. **Alwasel** SH, Sahajpal V, Ashton N. (2010) Renal magnesium handling is not subject to developmental programming. *Kidney Blood Press Res*. 33(2):94-9.
70. Gamal Badr, Douaa Sayed IM Alhazza, Khalid I Elsayh, Emad A Ahmed, S.H **Alwasel**. T-Lymphocytes from malnourished infants are short-lived and dysfunctional cells. *Immunobiology Journal*. (Accepted).
71. **Alwasel** SH, Ashton N. (2009) Prenatal programming of renal sodium handling in the rat. *Clin Sci.*117(2):75-84.
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### **Abstracts:**

SM Almeshari, N Ashton, G Badr, IM Alhazza and SH **Alwasel**. (2010) Maternal food restriction during pregnancy impairs offspring renal function in the rat. *Physiology Society Meeting*, Manchester, UK.

RJ Wilkinson, YSA Kaloda, SH **Alwasel** and N Ashton. (2010) Intermittent maternal fasting accelerates fetal growth but has no effect on offspring blood pressure in the rat. *Physiology Society Meeting*, Manchester, UK.

MA Haley, SH **Alwasel** and N Ashton (2010). Enhanced vasopressin-induced natriuresis in rats exposed to a low protein diet in utero. *Physiology Society Meeting*, Manchester, UK.

SM Almeshari, N Ashton, G Badr, IM Alhazza and SH **Alwasel**. (2010) PRENATAL MATERNAL FOOD RESTRICTION LEADS TO IMPAIRED RENAL SODIUM HANDLING IN ADULT RAT OFFSPRING. *European Hypertension Society Meeting*. Oslo.

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