

Afaf K. El-Ansary

King Saud University (Dept. of Biochemistry)

P.O Box 22452, Zip Code 1149

Riyadh, Kingdom Of Saudi Arabia

Tel: 009661-4769137 ext. 1396

FAX: 009661-4769137

Email : elansary@ksu.edu.sa

: afafelansary@yahoo.com

ACADEMIC BACKGROUND:

- B.Sc. (1974): Biochemistry Department, Faculty of Science, Ain Shams University, Cairo, Egypt.
- M.Sc. (1980): Biochemistry Department, Faculty of Science, Ain Shams University, Cairo, Egypt.
- Ph.D. (1990): Biochemistry Department, Faculty of Science, Ain Shams University, Cairo, Egypt.

POSITION HELD

- 2002- Now: Professor, Biochem. Dept. Faculty of Science, King Saud University, Riyadh, Saudi Arabia.
- 2001-2002: Professor, Faculty of Education, Jeddah, Saudi Arabia
- 2000-2001: Professor, Medicinal Chem. Dept. Nat. Res. Centre, Egypt.
- 1995-2000: Associate professor, Medicinal Chem. Dept. Nat.
- 1994-1995: Researcher, Medicinal Chem. Dept. Nat. Res. Centre

- 1992-1994: Assistant professor, Biochem. Dept. Faculty of Science King Saud University, Riyadh, Saudi Arabia.
- 1990-1992: Researcher, Medicinal Chem. Dept. Nat. Res. centre Egypt.
- 1987-1990: Assistant lecturer, Medicinal Chem. Dept. Nat. Res centre. Egypt.
- 1982-1987: Demonstrator, Biochem. Dept. Faculty of Science, King Saud University, Saudi Arabia.
- 1976-1982: Assistant researcher, Medicinal Chem. Dept. NRC Egypt.

MEMBERSHIP

- ✓ Secretary of the Middle Eastern Society for Comparative Physiology and Biochemistry.
- ✓ Member of the Union of Arab Biologist.
- ✓ Member on board of the Society "Voice of Mentally Retarded."
- ✓ Member in the Egyptian Society for Parasitology.
- ✓ Member of the International Councils for Preventive, Predictive and Personalized Medicine, Moscow.

REVIEWER PANELS

Recorded in the international reviewer panels of:

- ✓ Medical Science Monitor Journal, New York.
- ✓ FEBS Letters – Elsevier.
- ✓ Journal Acta Tropica
- ✓ Life Science- Elsevier
- ✓ Journal nanoparticles Research
- ✓ Saudi Chemical Society Journal
- ✓ Molecular Autism
- ✓ Molecular Neurology

EDITORIAL WORK:

Invited lead guest Editor of special issue on (Pro-oxidants in Toxicology, Journal of **Oxidative Medicine and Cellular Longevity**. <http://www.hindawi.com/journals/omcl/>

CONFERENCES PARTICIPATED

1. OMICS group conference on Translational Medicine, November 3-5 Embassy Suites Las Vegas USA **(Keynote Speaker) and Organizing Committee member**
2. OMICS group Conference On Predictive, Preventive and Personalized Medicine & Molecular Biology November 3-5 Embassy Suites Las Vegas USA **Speaker**
3. OMICS group conference on Immunology Summit and EXPO 86th Conference , Las Vegas USA 15-17 October, 2013. **Oral presentation**
4. OMICS group conference on Toxicology Summit and EXPO 86th Conference , San Antonio-Texas USA 26-28 Nov, 2012. **Oral presentation**
5. European strategies in predictive, preventive and personalised medicine: EPMA World Congress, 1-3 October, 2012. **Oral presentation**
6. 2nd world congress on Pharmaceuticals & Novel drug, Delivery Systems” (Pharmaceutica-2012), 20-22 Feb, 2012 in San Francisco, USA. **Oral presentation**
7. 16th International Conference of the Association of Psychology and Psychiatry for Adults and Children (A.P.P.A.C.) Hilton Hotel, in Athens, Greece, on May 17 – 20, 2011. **Oral presentation & session Chairman**
8. 1st AMDI International Biohealth Science Conference (IBSC 2010) 29th Nov-1st Dec 2010-Penang, Malaysia. **Keynote Speaker**
9. BIT's 3rd Annual Congress of Gene-2009- Foshan- China, 1-7 December, 2009. Oral presentation. **Speaker**

10. International Workshop on Advanced Materials IWAM, 2009. Ras Al-Khaima. Emarat. **Poster**
11. Participation in Nanotechnology conference which held in Jordon University- Oman, November 10-14, 2008. **Poster**
12. Participation in Nanotechnology conference which was held in Jeddah King Abdullah centre for nanotechnology from 17-19 June 2008. **Poster**
13. Participation in conference of Neuroscience, 21-24 January, 2008, Marriott Hotel. Arranged by Military Hospital.
14. 8th International Congress of the Egyptian German Society of Zoology, 29-31 March, Tanta, Egypt. 1999. **Speaker**
15. The SRP International Conference on Schistosomiasis, March, 15-19, 1998. **Oral presentation**
16. International Congress on Molecular Genetics, Feb., 21-25, 1998, Cairo, Egypt. **Oral presentation**
17. 36 th IUPAC Congress, 18-23 August, 1997, Geneva, Switzerland. **Poster**
18. 7 th International Congress of the Egyptian German Society of Zoology, 3-6 April, 1997, Aswan, Egypt.
19. 3 rd International Congress of the Union of Arab Biologist, 3-8 Nov., Sent Cathrin, Egypt. 1996.
20. The SRP International Conference on Schistosomiasis March, 12-16, 1995, Cairo, Egypt.
21. 35th IUPAC Congress, 14-19 August 1995-Istanbul-Turkey.
22. 3 rd International Congress of Toxicology in Developing Countries, Nov., 19-23, 1995, Cairo, Egypt.
23. Al-Azhar First International Conference on Recent Advances in Pharmaceutical Technology and Biological Sciences , Dec., 19-21, Cairo, Egypt. 1995.

RESEARCH PROJECTS

- ✓ Use of sublethal concentrations of plant molluscicides to control schistosomiasis. Dean of Scientific Research, King Saud University. (150,000 SR).

- ✓ Relationship between heavy metal pollution and oxidative stress/ impaired energy metabolism of Saudi autistic Children. Sabic Company. (25,000 SR).
- ✓ Neurological effects of orally administered propionic acid in rats: Possible role on the pathogenesis of autism. SABIC Company. (50,000 SR)
- ✓ Deanship of Scientific Research at King Saud University funding through the research group project No (RGP-VPP-005).
- ✓ Deanship of Scientific Research at King Saud University funding through the research group project small Research Group 2015
- ✓

PATENTS

- ✓ Disturbance of Schistosome-Snail interaction without environmental pollution. No 23323 (15/08/2000-15/08/2020). Ministry of state for Scientific Research. Academy of Scientific Research and Technology. Egypt.

DEPARTMENTAL AND COLLEGE COMMITTEES

- ✓ Member in the MsC student's admission committee, biochemistry department.
- ✓ Member in the biochemistry department committee for undergraduate academic strategic plan.

ACADEMIC ACCREDITATION RELATED ACTIVITIES

- ✓ Member in the King Saudi university accreditation committee (Representative of the Biochemistry Department, female section).
- ✓ Member of the internal reviewers committee of female centre in malaz (a temporary committee for evaluation of different departments for academic accreditation documentation).
- ✓ Coordinator of the biochemistry department in the quality and improvement committee at KSU level
- ✓ Member in the college committee for evaluating standard 10 (Scientific Research) for the accreditation process
- ✓ Acted as reviewer for preparing Physics Department- Princess Noura University for the NCAAA accreditation
- ✓ Acted as reviewer for preparing Nutrition Department- Applied Medical Science, King Saud University Department- Princess Noura University for the NCAAA accreditation

- ✓ Manage to give workshop related to SWOT analysis, course report and course specification through the Deanship of skills developments
- ✓ Manage to give workshop related to academic writing, oral presentation, grant application, Master and PhD supervision for KSU teaching staff and postgraduate students through Deanship of skills developments

AWARDS

- ✓ Recognized publication awards for six of the recently published papers.
- ✓ Recognized teaching staff award at the departmental level 1431-1432.

LIST OF PUBLICATIONS

1. Protective and restorative potency of Vitamin D on persistent biochemical autistic features induced in propionic acid-intoxicated rat pups. *BMC Complement Altern Med* 2014 25; 14:416.
2. Role Of amino acids in Pathophysiology of autism spectrum disorders in Saudi and Egyptian population samples. *Journa of pediatric neurology: JPN* 11/2014; 12(4):171-181.
3. Relative abundance of short chain and polyunsaturated fatty acids in propionic acid-induced autistic features in rat pups as potential markers in autism. *Lipids in Health and Disease* 08/2014; 13(1):140
4. GABAergic/glutamatergic imbalance relative to excessive neuroinflammation in autism spectrum disorders. *Journal of Neuroinflammation* 11/2014; 11(1):189.
5. A key role for an impaired detoxification mechanism in the etiology and severity of autism spectrum disorders. *Behavioral and Brain Functions* 2014, **10**:14

6. Selected biomarkers as predictive tools in testing efficacy of melatonin and coenzyme Q on propionic acid - induced neurotoxicity in rodent model of autism. *BMC Neuroscience* 2014, 15:34
7. Association of social and cognitive impairment and biomarkers in autism spectrum disorders. *J Neuroinflammation*. 2014 Jan 8;11:4.
8. The neurotoxic effect of clindamycin - induced gut bacterial imbalance and orally administered propionic acid on DNA damage assessed by the comet assay: protective potency of carnosine and carnitine. *Gut Pathogens* 2013, 5:9
9. Possible ameliorative effects of antioxidants on propionic acid / clindamycin - induced neurotoxicity in Syrian hamsters. *Gut Pathogens* 2013, 5:32
10. Protective and therapeutic potency of N-acetyl-cysteine on propionic acid-induced biochemical autistic features in rats *Journal of Neuroinflammation* 2013, 10:42
11. Comparative study on the protective effect of carnosine and carnitine against pro-inflammatory/pro-oxidant effects of clindamycin and propionic acid administrations to hamsters *African Journal of Microbiology Research* Vol.7(2) , pp. 103-114 , January 2013
12. Detoxification mechanisms in autism. *Open access Autism*. In press
13. Role of Gut-Brain axis in the etiology of neurodevelopmental disorders. *Clinical Toxicology*. 2013
14. Lipid mediators in plasma of autism spectrum disorders. *Lipids in Health and Disease* 2012, 11:160
15. Identification of potential biomarkers of gold nanoparticle toxicity in rat brains. *Journal of Neuroinflammation* 2012, 9:123
16. Neuroinflammation in autism spectrum disorders. *Journal of Neuroinflammation* 2012, 9:265

17. Impaired plasma phospholipids and relative amounts of essential polyunsaturated fatty acids in autistic patients from Saudi Arabia in *Lipids in Health and Disease*(2011)
18. Plasma fatty acids as diagnostic markers in autistic patients from Saudi Arabia. *Lipids in Health and Disease*(2011)
19. Relationship between chronic lead toxicity and plasma neurotransmitters in autistic patients from Saudi Arabia. *Clinical Biochemistry* (2011) 44(13, 1116-1120
20. Novel metabolic biomarkers related to sulfur dependent detoxification pathways in autistic patients of Saudi Arabia. *BMC Neurology* 2011, 11:139
21. Proinflammatory and proapoptotic markers in relation to mono and di-cations in plasma of autistic patients from Saudi Arabia. *J Neuroinflammation*. 2011; 8: 142.
22. Etiology of autistic features: the persisting neurotoxic effects of propionic acid *Journal of Neuroinflammation* 2012, 9:74
23. A novel study on amyloid β peptide 40, 42 and 40/42 ratio in Saudi autistics. *Behavioral and Brain Functions* 2012, 8:4
24. Mechanism of nitrogen metabolism-related parameters and enzyme activities in the pathophysiology of autism *Journal of Neurodevelopmental Disorders* 2012, 4:4
25. Oxidative stress and antioxidant status in Saudi Asthmatic patients. *Clinical Biochemistry*, 2011.

- 26.** Oxidative stress and antioxidant status in Saudi asthmatic patients. *Clinical Biochemistry*, In Press, Corrected Proof, Available online 12 February 2011

- 27.** On the biochemical phenomenon of nanoparticles-protein interactions. *J. Nanoparticles Research* 2012 Review article.

- 28.** Nanoparticles labeled stem cells: A novel therapeutic vehicle. *Journal "Clinical Pharmacology: Advances and Applications"* 2010,2:9-16

- 29.** Key Glycolytic enzymes as biomarkers in plasma of Saudi autistic children. Open access *Journal clinical trials* 2010, 2:1-9

- 30.** Measurement of selected ions related to oxidative stress and energy metabolism in Saudi autistic children. *Clinical Biochemistry* 2009.

- 31.** Biomarkers Discovery Of neurological Diseases: A metabolomic approach. Open access *Journal clinical trials* 2009.

- 32.** On the toxicity of therapeutically used nanoparticles: An overview. *J Toxicology* (2009).

33. Metabolic biomarkers related to oxidative stress and antioxidant status in Saudi autistic children. *Clinical Biochemistry*, 2009, 42: 1032-1040.
34. Metabolic biomarkers related to energy metabolism in Saudi autistic children. *Clinical Biochemistry*, 2009, 42: 949-957.
35. Effect of sublethal concentration of *Solanum nigrum* on transaminases and lactate dehydrogenase of *Biomphalaria Arabica*, in Saudi Arabia. *J. Egypt. Soc. Parasitol.* 37(1):39-50 (2007).
36. Induced changes in the amino acid profile of *Biomphalaria alexandrina* molluscan host to *Schistosoma mansoni* using sublethal concentrations of selected plant molluscicides. *J Applied Sciences* (2007).
37. Important aspects of Schistosome – *Biomphalaria* interactions as target for antischistosome drug. *Medical Science Monitor* 12 (12): 282-292 (2006).
38. Review: Stage-specific expression of schistosome proteins as potential target for drug design. *Medical Science Monitor* 11(3) :94-103 (2005).
39. Histological and Histochemical studies on mice liver-treated with curcuma longa or praziquantel. *Egypt. Pharm. J.* 5 (1): 77-101 (2005).
40. On the pathogenicity of attenuated *Schistosoma mansoni* cercariae released from metabolically disturbed *Biomphalaria alexandrina*. *J. Egypt. Soc. Parasitol.* 33 (3). 777-794 (2003).

41. Review: Biochemical and immunological adaptation in schistosome parasitism. *Comp. Biochem. Physiol* 136 (B), 227-243 (2003).
42. Antibilharzial evaluation of different extract of *Hydrangea hortensis*. *Bull. Fac. Pharm. Cairo Univ.* 41(3),(2003).
43. Effects of carnosine on bilharzial infestation in hamsters : biochemical and histochemical studies. *Comp. Biochem. Physiol.* 131 (B), 535-542. (2002).
44. Effect of carnosine administration on certain metabolic parameters in bilharzial- infected hamsters. *Comp. Biochem. Physiol.* (2001).
45. Biochemical study on Dimethoate chronic toxicity in rats and the protective effects of different diets. *Med. J. of Cairo University* . 69, 151-159 (2001).
46. Effect of schistosomal infection and its treatment with *Curcuma longa* extract on some bioenergetic parameters in mice livers. *Bull. NRC, Egypt*, 26(1), 61-69 (2001).
47. In vivo, attenuation of schistosome cercarial development and disturbance of egg laying capacity in *Biomphalaria alexandrina* using sublethal concentration of plant molluscicides. *J. Egypt. Soc. Parasitol*, 31(3),657-669 (2001).
48. SDS_PAGE –separated tissue proteins of *Biomphalaria alexandrina* in the presence and absence of *Schistosoma mansoni* infection. *J. Egypt. Soc. Parasitol.* 30 (1), 125-136 (2000).

- 49.** Schistosoma mansoni: Susceptibility of Biomphalaria alexandrina snails to Schistosoma mansoni infection: correlation with activity of certain glycolytic enzymes. J. Egypt. Soc. Parasitol. 30 (2), 547-560 (2000).
- 50.** Sublethal concentrations of Ambrosia maritima (Damsissa) affecting compatibility of Biomphalaria alexandrina snails to Schistosoma mansoni infection through disturbing the glycolytic pathway. J. Egypt. Soc. Parasitol. 30 (2), 809-819 (2000).
- 51.** Kinetic responses of adenylate degrading enzymes in muscles of freshwater snails, molluscan hosts for schistosoma species and a trial to disturb using saponins. Bull. NRC, Egypt, 24,59-73 (1999).
- 52.** Effect of alkaloids and saponins of plant origin on of Biomphalaria alexandrina snails. Egypt. J. Bilh.21, 125-144 (1999).
- 53.** HPLC analysis of free amino acids in Biomphalaria alexandrina snails under the influence of larval parasitic infection and starvation. Egypt. J. Bilh. 21, 34-51 (1999).
- 54.** On the factors affecting natural selection between schistosoma parasite and their molluscan intermediate host. . J. Egypt. Ger. Soc. Zool . 26 (D), 87-102 (1998).
- 55.** Some properties and specificity of deoxyribonuclease and ribonuclease of freshwater mollusks hosts and non- hosts to schistosoma parasite. . J. Egypt. Ger. Soc. Zool. 24 (A),35 - 47 (1997).

- 56.** Elucidation of the role of specificity, development and exposure to trematode infection on citrulline, arginine and nitrite levels in freshwater snails. Bull. Egypt. Soc. Physiol. Sci.17(1), 87-97 (1997).
- 57.** Mechanism of action of acylurea flufenoxuron on larvae of the egyptian cotton leaf worm *Spodoptera littoralis*. J. Egypt. Ger. Soc. Zool. 21,27-47 (1996).
- 58.** Comparative studies on polysaccharases of freshwater snails target and non-target to schistosoma parasite. J. Union Arab Biol. 6(A),21-33 (1996).
- 59.** Trace elements profile and kinetic studies of pyruvate kinase in freshwater snails target and non-target to schistosoma parasite. Egypt. J. Bilh. 18,27-38 (1996).
- 60.** Screening of two pyrazolopyrimidines for schistosomicidal activity and their effect on serum transaminases of albino mice. Egypt. J. Bilh.16, 201-210 (1995).
- 61.** Alkaline phosphatase and 5- nucleotidase activities and levels of calcium and phosphorus in tissue of some freshwater snails. Egypt. J. Bilh.17, (1995).
- 62.** Kinetic properties and sensitivity to methotrexate inhibition of dihydrofolate reductase in freshwater snails Bilh.17, (1995)
- 63.** Kinetic responses of lactate dehydrogenase and two transaminases during developmental stages of *Biomphalaria alexandrina* snails. Egypt. J. Bilh.17, (1995).

- 64.** Observations on the use of dursban as a molluscicide on some biological processes in *Biomphalaria alexandrina* snails. *Egypt. J. Pharm. Sci.*, 35(1-6), 539-552 (1994).
- 65.** Effect of excess vitamin C on certain biochemical parameters in laboratory bred *Biomphalaria alexandrina* snails. *Egypt. J. Pharm. Sci.*, 35(1-6), 477-487 (1994).
- 66.** Review: Factors affecting natural selection between helminthes parasites and their molluscan intermediate hosts with special reference to schistosoma. *Comp. Biochem. Physiol.* 108 B,397-415 (1994).
- 67.** Comparative metabolic study of three potent organophosphorous insecticides in *Biomphalaria alexandrina* snails. *Egypt. J. Bilh.* 15(1,2),101- 109 (1993).
- 68.** Effect of some organophosphorous insecticides on amylases and cellulases in *Biomphalaria alexandrina* snails. *Egypt. J. Bilh.* 15(1,2),183 -188 (1993).
- 69.** Synthesis of some Thiazolidianone and Pyrazolidinones of possible inhibitory effect on *Biomphalaria alexandrina* snails enzymatic activities. *Egypt. J. Bilh.* 15(1,2),171-181 (1993).
- 70.** Potential of certain organophosphorous insecticides to *Biomphalaria alexandrina* snails and their stability in the aqueous solution. *Bull. Fac. Agri. Cairo* 44 (2), 433-444 (1993).
- 71.** Comparative enzymatic studies on 5-azacytidine pre-treated *Biomphalaria alexandrina* snails. *Pakistan Journal of Biochemistry*, 25,1-15 (1992).

72. Comparative studies on some hydrolytic enzymes of *Biomphalaria alexandrina* snails specific intermediate hosts for schistosomiasis. *J. Biol. Med. Sci. Ther.* 8 (4),1-7 (1992).
73. Effect of magnesium and urea on glucose and glycogen content in schistosomiasis intermediate hosts. *Bull. NRC. Egypt*, 18 (1),49-54 (1992).
74. Mini review: Metabolic end-products in parasitic helminthes and their molluscan intermediate hosts. *Comp. Biochem. Physiol.* 101B,499-508 (1992).
75. Succinate DCPIP and NADH-fumarate oxidoreductases in freshwater snails susceptible and non-susceptible to schistosoma infection. *Cell. Mol. Biol* 38(2), 131-134 (1992).
76. Synthesis and effect of new tetrahydronaphthyl pyrazolines on carbohydrate metabolism in *Bilharzia* snails. *Bull. Fac. Pharm. Cairo Univ.* 30(3) 24-31 (1992).
77. Spectrophotometric and electrophoretic determination of the effect of copper sulphate and bayluscide on some enzymatic activities in *Biomphalaria alexandrina* snails. *Bull. NRC. Egypt*, 18 (3),173-188 (1992).
78. Kinetic potentials of certain scavenger enzymes in freshwater snails susceptible and non-susceptible to schistosoma infection. *Cell. Mol. Biol.* 39 (4),449-454. (1992).
79. 54. Biological aspects of controlling snail hosts of bilhaziasis using wild and cultivated plant extract. *Annals of agri. Sci. Moshtohor* 30 (3), 1531-1539 (1992).

- 80.** Inhibition of lactate dehydrogenase isoenzyme associated with anaerobic respiration in schistosomiasis intermediate host snails. *Cell. Mol. Biol.* 37 (1), 1-7 (1991).
- 81.** Variation of transaminases and lactate dehydrogenase in irradiated *Biomphalaria alexandrina* snails. *Cell. Mol. Biol.* 37 (4), 385-390 (1991).
- 82.** Measurement of some hydrolytic enzymes in *Biomphalaria alexandrina* snails specific intermediate hosts for schistosomiasis. *Cell. Mol. Biol.* 37(3), 309-314 (1991).
- 83.** Kinetic properties of two transaminases and lactate dehydrogenase in freshwater snails, specific intermediate hosts for human schistosomiasis. *Cell. Mol. Biol.* 36(4), 375-381 (1990).
- 84.** Measurement of some selected enzymatic activities in infected *Biomphalaria alexandrina* snails. *Cell. Mol. Biol.* 36(6), 367-372 (1990).
- 85.** Selected enzymatic activities in freshwater snails, specific intermediate hosts for human schistosomiasis. *Cell. Mol. Biol.* 35(2), 181-185 (1989).
- 86.** Genetic studies on freshwater snails, specific intermediate hosts for schistosomiasis. III- Chemical modification through incorporation of 5-bromouracil into deoxyribonucleic acid. *Cell. Mol. Biol.* 27, 185-203 (1981).

- 87.** Genetic studies on freshwater snails, specific intermediate hosts for schistosomiasis. IV- Gamma radiation as physical mutagen on deoxyribonucleic acid.. Cell. Mol.Biol. 27, 275-277(1981).
- 88.** Genetic studies on freshwater snails, specific intermediate hosts for schistosomiasis. I- Isolation and base composition determination of ribonucleic acid (RNA). Cell. Mol. Biol. 26,85-88 (1980).
- 89.** Genetic studies on freshwater snails, specific intermediate hosts for schistosomiasis. I- Isolation and base composition determination of deoxyribonucleic acid (DNA). Cell. Mol. Biol.26,455-458 (1980).

Book:

Toxicity of Novel Nanosized Formulations Used in Medicine In: Oxidative stress and Nanotechnology, Methods and protocol. eds: Donald Armstrong and Dhruba J. Bharali. Publisher: Humana Press is a brand of Springer. New York , London.