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## 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

- 2016-Now Senior Scientist, Central Laboratory, Female Centre for Medical and Scientific studies, King Saud University
- 2002- 2016: 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

## **Editorial board membership:**

- Journal of Biosciences and Medicines (SCIRP)
- SciFed Journal of Neuroscience
- Clinical Immunology & Research
- International Archives of *Communication Disorders*
- Novel Techniques in nutrition and food Sciences

## CONFERENCES PARTICIPATED

1. - Predictive, preventive and personalized medicine (PPPM), as a healthcare model of the newest generation, Moscow, 26-28 September, 2016
2. -1st Annual Cyprus International Conference on Autism Treatment & Research, Paphos, Cyprus, 18-23 November, 2016
3. 1st Neurological Disorders Summit (NDS-2015) 6-8 August-Airport Hilton, San Francisco, USA **(Keynote speaker)**
4. 1st Probiotic Summit 2015, 6-8 August- Airport Hilton, San Francisco **(Organizing Committee member).**
5. OMICS group conference on Translational Medicine, November 3-5 Embassy Suites Las Vegas USA, 2014
6. **(Keynote Speaker) and Organizing Committee member**
7. OMICS group Conference On Predictive, Preventive and Personalized Medicine &Molecular Biology November 3-5 Embassy Suites Las Vegas USA, 2014 **Speaker**
8. OMICS group conference on Immunology Summit and EXPO 86<sup>th</sup> Conference , Las Vegas USA 15-17 October, 2013.
9. OMICS group conference on Toxicology Summit and EXPO 86<sup>th</sup> Conference , San Antoni-Texas USA 26-28 Nov, 2012.

- 10.** European strategies in predictive, preventive and personalised medicine: EPMA World Congress, 1-3 October, 2012.
- 11.** 2<sup>nd</sup> world congress on Pharmaceuticals & Novel drug, Delivery Systems” (Pharmaceutica-2012), 20-22 Feb, 2012 in San Francisco, USA.
- 12.** 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.
- 13.** 1st AMDI International Biohealth Science Conference (IBSC 2010) 29th Nov-1st Dec 2010- Penang, Malaysia. Keynote Speaker
- 14.** BIT's 3rd Annual Congress of Gene-2009- Foshan- China, 1-7 December, 2009. Oral presentation.
- 15.** International Workshop on Advanced Materials IWAM, 2009. Ras Al-Khaima. Emarat.
- 16.** Participation in Nanotechnology conference which held in Jordon University- Oman, November 10-14, 2008.
- 17.** Participation in Nanotechnology conference which was held in Jeddah King Abdullah centre for nanotechnology from 17-19 June 2008.
- 18.** Participation in conference of Neuroscience, 21-24 January, 2008, Marriott Hotel. Arranged by Military Hospital.
- 19.** 8th International Congress of the Egyptian German Society of Zoology, 29-31 March, Tanta, Egypt. 1999.
- 20.** The SRP International Conference on Schistosomiasis, March, 15-19, 1998.
- 21.** International Congress on Molecular Genetics, Feb., 21-25, 1998, Cairo, Egypt.
- 22.** 36 th IUPAC Congress, 18-23 August, 1997, Geneva, Switzerland.
- 23.** 7 th International Congress of the Egyptian German Society of Zoology, 3-6 April, 1997, Aswan, Egypt.
- 24.** 3 rd International Congress of the Union of Arab Biologist, 3-8 Nov., Sent Cathrin, Egypt. 1996.
- 25.** The SRP International Conference on Schistosomiasis March, 12-16, 1995, Cairo, Egypt.
- 26.** 35th IUPAC Congress, 14-19 August 1995-Istanbul-Turkey.
- 27.** 3 rd International Congress of Toxicology in Developing Countries, Nov., 19-23, 1995, Cairo, Egypt.
- 28.** 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).

## **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.
- ✓ 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).
- ✓ Member in the college committee for evaluating standard 10 (Scientific Research) for the accreditation process

## **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. Identification of Biomarkers of Impaired Sensory Profiles among Autistic Patients. *PLOS one*, November 2016.
2. Data of multiple regressions analysis between selected biomarkers related to glutamate excitotoxicity and oxidative stress in Saudi autistic patients. *Data Brief*. 2016 Jun; 7: 111–116.
3. Cysteinyl leukotriene correlated with 8-isoprostane levels as predictive biomarkers for sensory dysfunction in autism. *Lipids Health Dis*. 2016; 15: 130
4. Therapeutic potency of bee pollen against biochemical autistic features induced through acute and sub-acute neurotoxicity of orally administered propionic acid. *BMC Complementary and Alternative Medicine*. 2016; 16:120
5. Potency of pre–post treatment of coenzyme Q10 and melatonin supplement in ameliorating the impaired fatty acid profile in rodent model of autism. *Food & Nutrition Research* 2016, 60: 28127
6. Beneficial effects of a protein rich diet on coping neurotrans-mitter levels during ampicillin-induced neurotoxicity compared to propionic-acid induced autistic biochemical features. *Int J Mol Cell Med* 2016 9; 5(3):149-159.
7. Increase of cytosolic phospholipase A2 as hydrolytic enzyme of phospholipids and autism cognitive, social and sensory dysfunction severity. *Lipids in health and diseases*. 2017 (Accepted).
8. Relationship between selenium, lead and mercury in red blood cells of Saudi autistic children. *Metabolic Brain diseases*, 2016 (accepted)
9. Predictive value of major biomarkers related to metabolisms and oxidative stress in children with autism spectrum disorder (ASD). *Metabolic Brain diseases*, 2017 (In review) Ms. No. MEBR-D-16-00360R1
10. Sex differences in glutamate signaling pathway in rat pups. *Biology of sex differences*, 2017, Ms. No: BOSD-D-17-00019 (Under Review)
11. Postnatal treatment of curcumin supplement in amending the damage in VPA induced rodent model of autism. *BMC Complementary and Alternative Medicine* Ms. No. BCAM-D-17-00167. 2017( Under Review)
12. Understanding the role of glutamine synthetase, glutaminase, and glutamate decarboxylase autoantibodies in the imbalanced excitatory/ inhibitory neurotransmission as etiological mechanisms in autism. *MEBR-D-17-00046* (Under Review). 2017.
13. Understanding glutamate signaling defects in propionic acid-orally administered Wistar rat pups as animal model of autism (Under Review)
14. Role of PGE2, COX-2, mPGES-1 and PGE2-EP2 receptors in the etiology and severity of autism spectrum disorders in Saudi children (Drafted).

15. Characterization, antibacterial, and neurotoxic effect of Green synthesized nanosilver using *Ziziphus spina Christi* aqueous leaf extract collected from Riyadh, Saudi Arabia (Drafted).
16. Vitamin D status and its association with inflammation and oxidative stress in autistic children with varying cognitive and social responsiveness scales. *Behavioral and Brain Functions*., 2017 (Drafted)
17. Elimination of high refined sugar diet as treatment strategy for autistic features related to gut microbiota, brain chemistry and inflammation: A comparable study using ampicillin and propionic acid - induced rodent model. *Gut Pathogen*., 2015.
18. The neurotoxic effects of ampicillin-associated gut bacterial imbalances compared to those of orally administered propionic acid in the etiology of persistent autistic features in rat pups: effects of various dietary regimens. *Gut Pathogens* (2015) 7:7
19. 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.
20. 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.
21. 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
22. GABAergic/glutamatergic imbalance relative to excessive neuroinflammation in autism spectrum disorders. *Journal of Neuroinflammation* 11/2014; 11(1):189.
23. A key role for an impaired detoxification mechanism in the etiology and severity of autism spectrum disorders. *Behavioral and Brain Functions* 2014, **10**:14
24. 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
25. Association of social and cognitive impairment and biomarkers in autism spectrum disorders. *J Neuroinflammation*. 2014 Jan 8;11:4.
26. 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
27. Possible ameliorative effects of antioxidants on propionic acid / clindamycin - induced neurotoxicity in Syrian hamsters. *Gut Pathogens* 2013, **5**:32
28. Protective and therapeutic potency of N-acetyl-cysteine on propionic acid-induced biochemical autistic features in rats *Journal of Neuroinflammation* 2013, **10**:42

- 29.** 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
- 30.** Detoxification mechanisms in autism. Open access Autism. Book Chapter
- 31.** Role of Gut-Brain axis in the etiology of neurodevelopmental disorders. Clinical Toxicology. 2013 (Review article)
- 32.** Lipid mediators in plasma of autism spectrum disorders. *Lipids in Health and Disease* 2012, **11**:160
- 33.** Identification of potential biomarkers of gold nanoparticle toxicity in rat brains. *Journal of Neuroinflammation* 2012, **9**:123
- 34.** Neuroinflammation in autism spectrum disorders. *Journal of Neuroinflammation* 2012, **9**:265
- 35.** Impaired plasma phospholipids and relative amounts of essential polyunsaturated fatty acids in autistic patients from Saudi Arabia in *Lipids in Health and Disease*(2011)
- 36.** Plasma fatty acids as diagnostic markers in autistic patients from Saudi Arabia. *Lipids in Health and Disease*(2011)
- 37.** Relationship between chronic lead toxicity and plasma neurotransmitters in autistic patients from Saudi Arabia. *Clinical Biochemistry* (2011) **44**(13, 1116-1120
- 38.** Novel metabolic biomarkers related to sulfur dependent detoxification pathways in autistic patients of Saudi Arabia. *BMC Neurology* 2011, **11**:139



- 39.** Proinflammatory and proapoptotic markers in relation to mono and di-cations in plasma of autistic patients from Saudi Arabia *.J Neuroinflammation*. 2011; 8: 142.
- 40.** Etiology of autistic features: the persisting neurotoxic effects of propionic acid *Journal of Neuroinflammation* 2012, **9**:74
- 41.** A novel study on amyloid  $\beta$  peptide 40, 42 and 40/42 ratio in Saudi autistics. *Behavioral and Brain Functions* 2012, **8**:4
- 42.** Mechanism of nitrogen metabolism-related parameters and enzyme activities in the pathophysiology of autism *Journal of Neurodevelopmental Disorders* 2012, **4**:4
- 43.** Oxidative stress and antioxidant status in Saudi Asthmatic patients. *Clinical Biochemistry*, 2011.
- 44.** Oxidative stress and antioxidant status in Saudi asthmatic patients. *Clinical Biochemistry*, In Press, Corrected Proof, Available online 12 February 2011
- 45.** On the biochemical phenomenon of nanoparticles-protein interactions. *J. Nanoparticles Research* 2012 Review article.
- 46.** Nanoparticles labeled stem cells: A novel therapeutic vehicle. *Journal "Clinical Pharmacology: Advances and Applications"* 2010,2:9-16
- 47.** Key Glycolytic enzymes as biomarkers in plasma of Saudi autistic children. *Open access Journal clinical trials* 2010, 2:1-9

- 48.** Measurement of selected ions related to oxidative stress and energy metabolism in Saudi autistic children. *Clinical Biochemistry* 2009.
- 49.** Biomarkers Discovery Of neurological Diseases: A metabolomic approach. Open access *Journal clinical trials* 2009.
- 50.** On the toxicity of therapeutically used nanoparticles: An overview. *J Toxicology* (2009).
- 51.** Metabolic biomarkers related to oxidative stress and antioxidant status in Saudi autistic children. *Clinical Biochemistry*, 2009, 42: 1032-1040.
- 52.** Metabolic biomarkers related to energy metabolism in Saudi autistic children. *Clinical Biochemistry*, 2009, 42: 949-957.
- 53.** 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).
- 54.** 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).
- 55.** Important aspects of Schistosome – *Biomphalaria* interactions as target for antischistosome drug. *Medical Science Monitor* 12 (12): 282-292 (2006).
- 56.** Review: Stage-specific expression of schistosome proteins as potential target for drug design. *Medical Science Monitor* 11(3) :94-103 (2005).

- 57.** Histological and Histochemical studies on mice liver-treated with curcuma longa or praziquantel. Egypt. Pharm. J. 5 (1): 77-101 (2005).
- 58.** On the pathogenicity of attenuated *Schistosoma mansoni* cercariae released from metabolically disturbed *Biomphalaria alexandrina*. J. Egypt. Soc. Parasitol. 33 (3). 777-794 (2003).
- 59.** Review: Biochemical and immunological adaptation in schistosome parasitism. Comp. Biochem. Physiol 136 (B), 227-243 (2003).
- 60.** Antibilharzial evaluation of different extract of *Hydrangea hortensis*. Bull. Fac. Pharm. Cairo Univ. 41(3),(2003).
- 61.** Effects of carnosine on bilharzial infestation in hamsters : biochemical and histochemical studies. Comp. Biochem. Physiol. 131 (B), 535-542. (2002).
- 62.** Effect of carnosine administration on certain metabolic parameters in bilharzial- infected hamsters. Comp. Biochem. Physiol. (2001).
- 63.** Biochemical study on Dimethoate chronic toxicity in rats and the protective effects of different diets. Med. J. of Cairo University . 69, 151-159 (2001).

- 64.** 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).
- 65.** 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).
- 66.** 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).
- 67.** *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).
- 68.** 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).
- 69.** Kinetic responses of adenylate degrading enzymes in muscles of freshwater snails, molluscan hosts for schistosome species and a trial to disturb using saponins. Bull. NRC, Egypt, 24, 59-73 (1999).
- 70.** Effect of alkaloids and saponins of plant origin on *Biomphalaria alexandrina* snails. Egypt. J. Bilh. 21, 125-144 (1999).

- 71.** 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).
- 72.** On the factors affecting natural selection between schistosoma parasite and their molluscan intermediate host. . J. Egypt. Ger. Soc. Zool . 26 (D), 87-102 (1998).
- 73.** 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).
- 74.** 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).
- 75.** 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).
- 76.** Comparative studies on polysaccharases of freshwater snails target and non-target to schistosoma parasite. J. Union Arab Biol. 6(A),21-33 (1996).
- 77.** 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).
- 78.** Screening of two pyrazolopyrimidines for schistosomicidal activity and their effect on serum transaminases of albino mice. Egypt. J. Bilh.16, 201-210 (1995).

- 79.** Alkaline phosphatase and 5- nucleotidase activities and levels of calcium and phosphorus in tissue of some freshwater snails. Egypt. J. Bilh.17, (1995).
- 80.** Kinetic properties and sensitivity to methotrexate inhibition of dihydrofolate reductase in freshwater snails Bilh.17, (1995)
- 81.** Kinetic responses of lactate dehydrogenase and two transaminases during developmental stages of *Biomphalaria alexandrina* snails. Egypt. J. Bilh.17, (1995).
- 82.** 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).
- 83.** 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).
- 84.** 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).
- 85.** Comparative metabolic study of three potent organophosphorous insecticides in *Biomphalaria alexandrina* snails. Egypt. J. Bilh. 15(1,2),101- 109 (1993).
- 86.** Effect of some organophosphorous insecticides on amylases and cellulases in *Biomphalaria alexandrina* snails. Egypt. J. Bilh. 15(1,2),183 -188 (1993).

- 87.** 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).
- 88.** 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).
- 89.** Comparative enzymatic studies on 5-azacytidine pre-treated *Biomphalaria alexandrina* snails. Pakistan Journal of Biochemistry, 25,1-15 (1992).
- 90.** 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).
- 91.** Effect of magnesium and urea on glucose and glycogen content in schistosomiasis intermediate hosts. Bull. NRC. Egypt, 18 (1),49-54 (1992).
- 92.** Mini review: Metabolic end-products in parasitic helminthes and their molluscan intermediate hosts. Comp. Biochem. Physiol. 101B,499-508 (1992).
- 93.** Succinate DCPIP and NADH-fumarate oxidoreductases in freshwater snails susceptible and non-susceptible to schistosoma infection. Cell. Mol. Biol 38(2), 131-134 (1992).
- 94.** Synthesis and effect of new tetrahydronaphthyl pyrazolines on carbohydrate metabolism in *Bilharzia* snails. Bull. Fac. Pharm. Cairo Univ.30(3) 24-31 (1992).

- 95.** 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).
- 96.** Kinetic potentials of certain scavenger enzymes in freshwater snails susceptible and non-susceptible to schistosoma infection. Cell. Mol. Biol.39 (4),449-454. (1992).
- 97.** 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).
- 98.** Inhibition of lactate dehydrogenase isoenzyme associated with anaerobic respiration in schistosomiasis intermediate host snails. Cell. Mol.Biol.37 (1),1-7 (1991).
- 99.** Variation of transaminases and lactate dehydrogenase in irradiated *Biomphalaria alexandrina* snails. Cell. Mol.Biol.37 (4),385-390 (1991).
- 100.** Measurement of some hydrolytic enzymes in *Biomphalaria alexandrina* snails specific intermediate hosts for schistosomiasis. Cell. Mol. Biol.37(3),309-314 (1991).
- 101.** 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).



102. Measurement of some selected enzymatic activities in infected *Biomphalaria alexandrina* snails. *Cell. Mol.Biol.*36(6),367-372 (1990).
  
103. Selected enzymatic activities in freshwater snails, specific intermediate hosts for human schistosomiasis. *Cell. Mol. Biol.* 35(2),181-185 (1989).
  
104. 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).
  
105. 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).
  
106. 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).
  
107. 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 Chapters and special issues lead editing:**

1. **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
  
2. **Biomarkers directed strategies to treat autism** (In Tech publisher), 2016

- 3. Correction of fatty acid metabolism as strategy to treat autism (In Tech publisher), 2017 In press**
- 4. Neurotoxins in autism (In Tech publisher), 2017 In Press**
- 5. Prooxidant mechanisms in toxicology (Special issue).**
- 6. Advances In lipid metabolism ( Special issue)**