

Prof. Dr. Abdelrahim A. Hunaiti

PERSONAL DATA

Date of Birth : February 1952
Place of Birth : Abu Alanda -
Nationality : Jordanian
Marital Status : Married
Number of Children : Four
Languages : Arabic Excellent, English V. good.
Tel. Work : (962-5) 3903333
Fax Work : (962-5) 3826612
E-mail : Hunaiti2001@yahoo.com



EDUCATION

- Ph.D. Biochemistry(Biosynthesis of Erythromycin), Washington State University, Pullman, USA, 1983.
- M.Sc. Microbiology (Neutralization of E. coli Aspartate Transcarbamylase by its Antibody.), The University of California State, Fresno, USA, 1979.
- B.Sc. Biology, University Of Jordan, Amman, 1975.

PROFESSIONAL EXPERIENCE

- Professor of Biochemistry Dept. Biol. Sc.: University of Jordan.
- President of Mu'tah University, March 2009- March 2013.
- The Hashemite University President Feb 15,2008- March 2009.
- President of Higher Education Accreditation Commission June 15, 2007- Feb 15, 2008
- President, University of Jordan, Dec. 2, 2004- June 2007.
- Director General of Higher Education Accreditation Council, Nov. 1 – Dec. 2, 2004.
- Dean of the Faculty of Science, Yarmouk University, Sept 2004 – Nov.1, 2004.
- Vice President for Academic Affairs, Philadelphia University, Oct. 2000 – Sept 2004.
- Member of Higher Education Accreditation Council, 1997 – Dec. 2, 2004.
- Professor, Yarmouk University, Feb. 2000 - Oct. 2000.
- Vice President for Faculties of Sciences Affairs, Mu'tah University, 1998 – Feb. 2000.
- Vice President for Academic Affairs, Mu'tah University, 1996-1998.
- Vice President for Administrative Affairs and Projects, Mu'tah University 1994 - 1996.
- Foundation Dean of Faculty of Agriculture , Mu'tah University, 1994 -1995.
- Assistant to University President for Administrative Affairs : Mu'tah University 1993 – 1994.
- Dean of Academic Research & Graduate Studies : Mu'tah University, 1993 -1994.
- Professor : Yarmouk University 1992-1993.
- Visiting Professor : Gar Younis University, Libya, 1991-1992.
- Chairman of the Department of Biological Sciences: Yarmouk University , 1989 - 1991.
- Associate Professor : Yarmouk University, 1987 – 1992.
- Assistant Professor : Yarmouk University, 1983 – 1987.
- Research Assistant : Washington State University, 1981-1983.
- Teaching Assistant : Washington State University, 1980 - 1981.

RESEARCH INTERESTS

- 1) My research interests include the following areas:
 - i) The enzymology of Antibiotics Biosynthesis and Regulation. Different enzymes involved in the biosynthesis of Erythromycin have been purified and characterized; we are trying to understand the various aspects of macrolide Antibiotics production and regulation.
 - ii) Environmental Health.
The effects of various health chemicals including environmental pollutants such as heavy metals, herbicides and pesticides have been studied in detail using human and other organisms. Their interactions with glutathione and glutathione associated enzymes have also been studied.
 - iii) The enzymology of various chemical carcinogens, mutagens and xenobiotics detoxification mechanisms: My approach to this research problem has been to identify and purify the glutathione S-transferases from various tissues and to correlate this with the level of the antioxidants such as reduced glutathione. The induction of glutathione S-transferases by drugs, herbicides and insecticides and other chemicals has been investigated using the characterized proteins and monospecific antibodies.
 - iv) The molecular pathology of oxygen radicals induced illness: Human superoxide dismutases play an important role in detoxification of superoxide. Age and environmental factors have been studied in details to determine their effects on the level of the enzyme in human placenta and to correlate these with various Fetal and maternal illness.
- 2) The prevalence of enzymes and vitamins deficiencies (such as glucose-6-Phosphate dehydrogenate and vitamin B₁₂ in Jordan and to correlate this with the levels of some oxidative enzymes such as glutathione peroxides, superoxide dismutase, catalase, and glutathione S-transferase.

PUBLICATIONS

A. Books:

- 1- Laboratory Manual for Experimental Biochemistry: (Yarmouk University Publication), 1986.
- 2-Protein Structure- Function Relationship Elsevier publication. Editor Z.H.Zaidi 139-147 1988 coauthor
- 2- Biochemistry (In Arabic) Al-Quads Open University Publication. Co-authored with Al-Khateeb, Faisal. (1993).
- 3- General Science (In Arabic) Published by World Bank and America-Mideast Educational and Training Services, Inc., for the Ministry of Education in Yemen, Co-authored with Khalili, and Gharabieh, S. (1993).
- 4- Science and Technology in the Arab World. Co-authored with others, Abdel-Hamid Shouman Foundation publication, 2002.

B. JOURNALS:

- 1- HUNAITI. A. and Kolattukudy, P. E. (1982), Isolation and Characterization of an acyl coenzyme, A carboxylase from an erythromycin producing streptomyces erythreus. Arch. Biochem. Biophys. 216: 362-371.
- 2- HUNAITI. A. And Kolattukudy, P.E. (1984). Malonyl-CoA decarboxylase from streptomyces erythreus: Purification Properties and Possible role in the production

of erythromycin. Arch. Biochem. Biophys. 229: 426-439.

- 3- HUNAITI. A. and Kolattukudy, P.E. (1984). Source of methymalo-nycoenzyme A for erthyromycin synthesis: Methylmolony coenzyme A mutase from streptomycetes erythreus Antimicrobial agent and chemotherapy. 25: 173-178.
- 4- HUNAITI. A. and Owais W. M. (1985). Partial purification and comparison of glutathione S-transferases from camel liver and brain. Comp. Biochem. Physiol. 81 B: 251-254.
- 5- Owais, W. M.; Janakat, S. and HUNAITI. A. (1985). Activation of sodium cyanide to a toxic but non-mutagenic in Salmonella typhimurium... Mutation Research. 144: 125-199.
- 6- HUNAITI. A. and ABU KHALAF, I.K. (1986). The distribution and comparison of glutathione, glutathione reductase and glutathione S-tranferase in various camel tissues. Comp. Biochem. Physiol. 85B: 733-737.
- 7- HUNAITI. A. And Sarhan A.A. (1987). Purification and Characterization of camel liver glutathione S-transferase. Int. J. Biochem. 19: 71-77.
- 8- El-Oqlah, A.A.: HUNAITI. A.; Aburijia, M. A. and Abu Gharaibeh, K. (1987). Occurrence of hemolytic activities in selected lichen species from Jordan. Al Derassat. XIV: 195-200.
- 9- HUNAITI. A. and Abu Khalaf, (1987). A rapid purification procedure for the purification of camel kidney glutathione S-transferase. Preparative Biochemistry. 17(3): 139-259.
- 10- HUNAITI. A. (1987). Radial diffusion as a simple and rapid method for screening superoxide dismutase activity. Annal. Clin. Biochem. 24: 511-512.
- 11- Ishikawa, T. HUNAITI. A., piechot. G, and Wolf, B. (1987) Isolation and characterization of basic superoxide dismutase consisting of Mr 25.000 subunits from rat liver, Eur. J. Biochem. 170: 317-323.
- 12- HUNAITI. A. and Muwalla, M. (1987). Purification and characterization of 5-Nucleotidase from Awassi ram seminal plasma. Indian, J. Animal sciences, 57, 1993-1096.
- 13- HUNAITI. A.; Abu-Orabi, S. T; Sarhan, M. A. and Owais, W. M. (1988). Interaction of Organic azides with purified camel glutathione S-transferases. J. Biochemical Medicine 39: 140-147.
- 14- Gharaibeh, S. H; Abuirjeie, M. A. and HUNAITI. A. (1988). Occurrence of Benz (a) pyrene in combustion effluents of Kerosene and diesel burners. Bull. Envi. Cont. Tox. 41: 449-453.
- 15- HUNAITI. A. and El-Oqlah, A. (1988) Hemolytic toxin of the lichen parmelia pulla.. J. Biological Research. 19: 843-852.
- 16- Hussein, S. T.; Muwalla, M; HUNAITI. A. and Byadoun, E. (1988). Histochemical localization of 5'-Nucleotidase in the placenta. Biochem. Soc. Trans. 16(6):1042.
- 17- HUNAITI. A., Al-Hassan, K. and Abukhalaf, I. K. (1988). Fluorescene properties of Bilirubin Binding to major Glutathione S- transferase Isoenzmes obtained from liver, and kidney. Protein structure and function. Zafer, H. Z. Ed. Elservier publisher pp.

139-147.

- 18- HUNAITI. A.; El-Oqlah, A. and Abu-Ghariabeh, K. s. (1988). A novel hemolysin from the lichen *parmelia pulla*. *Biochemistry Intern.* 17(6) 1049-1058.
- 19- HUNAITI. A. and Asaid, Q. (1989). Camel Brain Glutathione S-transferase, purification, properties, Regional and Subcellular Distribution. *comp. Biochem. Physiol.* 93B: 333-338.
- 20- HUNAITI. A. ; Muwalla, M. M.; Abuirjeie, M. A. and Twafeeq, f. (1989). Determination of Plasma progesterone in Awassi ewes using Radioimmunosay. *Arab Gulf. J. Scient. Res. Agric. Bio. Sci.* B7 (1): 37-42.
- 21- HUNAITI. A. (1990). A comparison of Cardiac glutathione S-transferase from wild and Domestic animals. *Comp. Biochem. Physiol.* 95B No. 2: 275-280.
- 22- Alkofahi, A.S.; Abdelziz, A.; Mahmoud, I.; HUNAITI. A. a.; and Al-Oqla, A. (1990). Cytotoxicity, Mutagenicity and Antimicrobial activity of forty Jordanian Medicinal plants. *Int. J. Crude Drug Res.* 28 No. 2: 139-144.
- 23- HUNAITI. A. And Irshaid, F. I. (1990). Studies on Human placental Glutathione S-transferase Multiplicity and Mother age influence *Arch. Int. Physiol. Biochem.* 98: 331-338.
- 24- HUNAITI. A. and Ali, B. R. (1990). Purification and characterization of glutathione S-transferase from oxadiazon treated chick pea. *Phytochemistry*, 29, 8: 2431-2435.
- 25- HUNAITI. A. and Ali, B. R. (1991). Induction of chick pea glutathione S-transferase by oxadiazon *phytochemistry* 30 No. 71: 2131-2134.
- 26- HUNAITI. A. and Mir, S. (1993). Effects of selected herbicides and insecticides on the mortality of *Aphanius dispar richardsoni* and on its glutathione s-transferase activity. *Mu'tah Lil Booth Wal Drassat Ser. B. Vol. 8. NO. 5.* 223-237.
- 27- Rawashdeh, M., Heitkamp, H. CH, Wezermes, I and HUNAITI, A. (1994). ROD Effect of Ramadan Fasting on Lipid Metabolism, *Abhath Al-Yarmouk* 10(4) 43-49.
- 28- HUNAITI. A., Soud. M, and Khalil A. (1995) Lead concentration and the level of Glutathione, Glutathione S-transferase, Reductase and peroxidase in the blood of some occupational workers from Irbid City, Jordan. *The Science of the Total Environment* , 170: 95-100
- 29- HUNAITI. A. and Elbetieha, A. Obeidat, M. and Owais, W. (1995). Development studies on *Drosophila melanogaster* glutathione s-transferase and its induction by Oxadiazolone . *Insect. Biochem. Molec. Biol.* 25(10): 1115-1119.
- 30- HUNAITI. A. and Saleh, M. (1996). Effects of supplementation of pregnant women with commercially available Iron-Zinc and calcium/vitamins preparations upon the activity and contents of human placental copper/zinc and manganese superoxide dismutases. *Biological Trace Element Research.* 54: 231-238.
- 31- Talafih, K., HUNAITI. A.; Gaharibah, N.; Ghariabah, M. and Jaradat S. (1996). The coincidence of glucose-6-phosphate dehydrogenase deficiency and Hemoglobin s-gene in Jordanian Newborns. *The Journal of Obsterics and Gynaecology . Research* 22 No. 5. 417-420
- 32- HUNAITI. A. and Jaradat, S. (1996). Glucose-6-phosphate dehydrogenase deficiency in northern part of Jordan, and its relation to the level of some oxidative

- enzymes in A bhash Al Yarmouk Pure Science and Engineering series 5, No. 2. 21-33.
- 33- HUNAITI. A. and Horani, F. (1997). Camel glutathione based detoxification system. Trends in Comparative Biochemistry and physiology. Vol. 3, page 49-55.
 - 34- HUNAITI. A. and Al. Shareef, M. (1997). The interplay between glutathione S-transferase and glucose 6-phosphate dehydrogenase in neonatal cord blood. Biology of neonate. 72 (5) 273-278.
 - 35- HUNAITI. A. Soud. M. (2000), Effect of lead concentration on the level of glutathione, glutathione-transferase, reductase and peroxidase in human blood. The Science of the Total Environment, 248: 45-50.
 - 36- Hunaiti .A. Abukhalaf, I., Silvestrov, N., Bayorh, M. (2003). A rapid high performance liquid chromatographic procedure for the Quantitation of Phytochelatins in plant tissue extracts. J. Liq. Chromatog. Rel. Tech. 26 (20) 3463-3473.
 - 37- Hunaiti, A., et al. (2007), Towards understanding the influence of soil heavy metals and sulfate content of plant thiols. J. Toxicol. Environ Health A 70(6): 559-67.
 - 38 Alkaraki. AK, Hunaiti. AA, Sadiq. MF (2010). Simultaneous aminothiols determination in Down syndrome individuals using a modified HPLC method. Int.J. Integ. Biol. 10(2): 90-93.

C - ABSTRACTS (presented in professional and scientific meetings and workshops)

- 1- HUNAITI. A. and Owais, W. M. Glutathione S-transferase from camel brain and liver. The Third Arab Scientific Conference of Biological Sciences. (Amman, Jordan, Nov. 1984), p. 19.
- 2- Owais, W. M; Janakat, s. and HUNAITI A. A. conversion of cyanide to toxic and non-mutagenic metabolic in salmonella typhimurium. Abstract 16th Annual Meeting of Environmental Mutagens Society (Las Vegas Nevada, U.S. A. Feb. 1985). Also published in Environmental Mutagenesis 7(3): 16, 1985.
- 3- HUNAITI , A. Interaction of Organic Azides with Purified Camel Glutathione S-transferases. The Third International Bienial Meeting of the Society of Free Radical Research, Dusseldorf, West Germany, July, 1986.
- 4- HUNAITI , A. Flourescence Properties of Bilirubin Binding to the major Camel Glutathione S-transferase Isozymes obtained from liver, Lung, and Kidney. International Congress of Plants and Natural Products with therapeutic interest. Monastir, Tunisia, April, 1986.
- 5- HUNAITI , A. Flourescence Properties of Bilirubin Binding to the major Camel Glutathione S-transferase Isozymes obtained from liver, Lung, and Kidney. First International Symposium in Protein Structure and Function. Karachi-Pakistan, Jan. 1988.
- 6- HUNAITI , A. Light Mediated Radial Diffusion Methods for Quantitative Measurements of Superoxide Dismutase. The First International Conference on low Cost Experiments in Biophysics, Cairo, Egypt. Dec. 1989.
- 7- HUNAITI , A. Glucose 6-phosphate Dehydrogenase in the Northern part of Jordan.

- Conference on the use of Biological Sciences in Development: Mu'tah University - Jordan, April 1990.
- 8- HUNAITI , A. Head of the Organization Committee of conference on the use of Arabian Research in Production and Development Sectors in the Arab World. Mu'tah University 1993.
 - 9- HUNAITI. A. Lead concentration and the level of glutathione and glutathione mediated detoxification enzymes in the blood of some occupational workers from Jordan. International conference on health, Environment and Development. Alexandria, Egypt. Oct. 14-17, 1996.
 - 10- HUNAITI. A. Research support systems in Jordan universities. Workshop on the organization, Management and Evaluation of Applied Scientific and Technological Research systems in Arab Universities (UNESCO). Bahrain, Nov. 16th - 20th., 1996.
 - 11- HUNAITI. A. and Al-Shareef, M. Levels of glucose 6-phosphate dehydrogenase and glutathione S-transferase in neonate blood from Jordan. Eighth Arabs Conference of Clinical Biology. Amman - Jordan. April 1997.
 - 12- HUNAITI. A., Science for the Twenty first Century a new commitment. World conference on science UNESCO and ICSU. Budapest, Hungary, 26 June-1 July 1999.
 - 13- HUNAITI. A., The use of DNA fingerprinting in identification conference on the uses and applications of genetic engineering NAIF Academy for security sciences Saudia Arabia, Nov. 13th-17 th 1999.
 - 14- Laboratory Manual for Experimental Biochemistry: (Yarmouk University Publication), 1986. Biochemistry (In Arabic) Al-Quads Open University Publication. Co-authored with Al-Khateeb, Faisal. (1993).
 - 15- General Science (In Arabic) Published by World Bank and America-Mideast Educational and Training Services, Inc., for the Ministry of Education in Yemen , Co-authored with Khalili, and Gharabieh, S. (1993).
 - 16- Science and Technology in the Arab World. Co-authored with others, Abdel-Hamid Shouman Foundation publication, 2002.

AWARDS

- Deutscher Akademischer Austauschdienst guest scientist visit grant in 1986 to work at physiological Biochemistry lab. at University of Düsseldorf Medical School
- Abdel Hamid Shouman Prize for Young Arab Scientists, 1990.
- Von Humboldt Fellowship 1992.

Administration and Committees

- Chairman of Department of Biological Sciences, Yarmouk University .1989-1991.
- Dean of Academic Research and Graduate Studies, Mu'tah University, 1993-1994.
- Assistant to the University President for Administrative Affairs, Mu'tah University, 1993-1994.
- Dean Of Faculty of Agriculture, Mu'tah University, 1994-1995.
- Vice President for Administrative Affairs and Projects, Mu'tah University, 1994-1996.
- Vice President for Academic Affairs and Projects, Mu'tah University, 1996-1998.
- Vice President for Faculties of Sciences Affairs, Mu'tah University, 1998-Feb.2000.
- Vice President for Academic Affairs, Philadelphia University Oct, 2000 – Nov. 1,

2004.

International Committees

- Member of the foundation committee for Arab Biophysics Society.
- Member of Jordan-Israel Bilateral Committee for Science -Technology and Culture Peace Agreement, 1995.
- Member of Arab Potash Company Board of Management, 1997-2001.
- Member of International Energy Foundation Advisory Committee (IAC).

National Committees

- Member of Jordanian National Research Fund, 2013-Now
- Member of higher education council 2004- 2010
- Head of Administrative and finance committee for higher education council, 2009-2010.
- Member of Jordanian Committee for Standards and Measurements, 1988.
- Member of Biological Sciences Curriculum Committees at University of Jordan for Science and Technology and for Al-Quads Open University, 1989.
- Member of Jordan Science Week Committee, 1994.
- Member of Higher Education Ministerial Committee for Accreditation of Private Universities, 1994-1997.
- Member of National Team for World Bank Project for the Reform of Higher Education in Jordan 1997 - 2000.
- Member of Higher Education Accreditation Council 1997 – Dec. 2, 2004.
- Jordan Science and Technology University Board of Trustees, 1997- 2001.
- Member of Faculty of Science Council at University of Jordan 2002 – 2004.
- Head of Science, Medical Sciences and Information Technology Accreditation Committee (Higher Educations Accreditation Council) since 2002.