

CURRICULUM VITAE

Name: Naif Salem Karadsheh

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Date & Place of Birth: 1946, Madaba, Jordan.

Marital Status: Married.

Nationality: Jordanian.

Present Status:

Prof. of Biochemistry

Dept. of Physiology & Biochemistry

Faculty of Medicine

Univ. of Jordan, Amman, Jordan.

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Educational Qualifications:

Degree/Position	Year	Major Subject	University
1. B.S (Hons.)	1968	Chemistry	Univ. of Delhi.
2. M.S	1970	Biochemistry	Univ. of Bombay
3. Ph.D.	1974	Biochemistry	A.I. I.M.S, ND
4. Post-doctoral	4/74-	Biochemistry	Univ. of Texas
Fellow	4/77-		Health Science Center at Dallas
5. Research	2/78-	Biochemistry	Yale Univ.
Associate	9/79		School of Medicine.

Position Held:

1. Chairman, Department of Biochemistry & Physiology, Faculty of Medicine, University of Jordan during the following years:
 - 1- 1991-1996
 - 2- 2000-2003
 - 3- 2004- 2010
2. Chairman of Laboratory & supplies Committee for 2 years (1981-1983).
3. Member of Varian committees for several years that included:
Research , Faculty, Curriculum Committees.

Promotions:

- 1- Professor of Biochemistry (1993)
- 2- Associate Prof. of Biochemistry (1986)
- 3- Assistant Prof of Biochemistry (9/1979)

Visiting Research Fellow and Research Awards:

1. **DAAD**, German Academic Exchange Fellow, July 2007-Aug 2007, Charite-Universitatmedizin – Berlin, Germany.
2. **Distinguished Scholarship Award From**, The Arab Fund for Economic and Social Development, Kuwait, at the Department of Biochemistry and Molecular Biology, George Washington University School of Medicine, Wash., DC , USA, 9/2003-9/2004.
3. **DAAD**, German Academic Exchange Fellow, July 2001-Sept 2001, Georg-August University, Gottingen, Germany.
4. **Fulbright Senior Research Fellow**, 9/1998- 6/1999, School of Medicine, University of Alabama at Birmingham,USA
5. **DAAD**, German Academic Exchange Fellow, June 1994- Aug. 1994, Univ. of Konstanz, Germany.
6. **French Govt. Sernior Research Scholarship** 1/9/1992-30/10/1992 INRA, St. Gilles, France.

7. **Fulbright Senior Research Fellow**, 10/1988-5/1999 & 5/1988-11/1989, Univ. of Texas Health Science Center at Houston & Ohio State University College of Medicine at Columbus, USA.
8. **DAAD**, German Academic Exchange Fellow, Aug. 1984 - Nov. 1984, Univ. of Konstanz, Konstanz, Germany.
9. **Matsumae International Foundation Research Fellow**, June 1983-Sept. 1983, Univ. of Tokyo, Tokyo, Japan.
10. **Visiting Assistant Professor**, 7/80 – 9/80, Yale Univ. School of Medicine, Dept. of Pharmacology.

Teaching Experience:

1. Teaching biochemistry course since 1980 till now for:
 - 1- Medical Students.
 - 2- Dental Students
 - 3- Pharmacy Students (1982-1997)
 - 4- Nursing Students
2. Clinical Chemistry for the third year Medical Technology students & fifth year Pharmacy students (1990-1994).

Workshops Attended on Medical Education:

1. The Tenth Regional Workshop on Educational Planning, 1-13 Nov., 1980, sponsored by WHO at the Univ. of Jordan, Faculty of Medicine.
2. Workshop on Construction of Examination Questions, January 1986, Center for Educational Development for Health Personnel, Univ. of Jordan.

Research Interest:

1. Inherited Disorders of Red Cell Enzymes – Biochemical, Biophysical & Molecular

Characterization of Abnormal Enzymes.

About 20 red cell enzymes, when functionally defective, have been claimed to result in hereditary hemolytic anemia. Glucose –6- phosphate dehydrogenase (EC 1.1.1.49,

G6PD) deficiency is the commonest erythroenzymopathy in the world & appears by far the most common enzymopathy associated with hemolysis in Jordan. Deficiencies of the remaining red cell enzymes are extremely rare. G6PD shows extensive genetic polymorphism. We are interested in detecting the abnormal protein (enzyme) that causes hemolytic anemia in patients suffering from chronic or episodic hemolysis & studying its biochemical, biophysical and molecular properties.

2. Reactive oxygen species and anti-oxidant enzymes in health and diseases.

Ongoing Research Projects:

We are currently working on:-

1. Molecular G6PD and PK variants in Jordan.
2. MDA and Proteins oxidation in G6PD-deficient individuals.

PUBLICATIONS:

1. **Karadsheh N S**, Ramaiah A: Some kinetic properties of yeast phosphofructokinase desensitized to inhibition by adenosine triphosphate. *Biochem Biophys Acta* 284:110, (1972).
2. **Karadsheh N S**, Tejwani GA, Ramaiah A: Sedoheptulose 7-phosphate kinase activity of phosphofructokinase from different tissues of rabbit. *Biochem Biophys Acta*, 327:66, (1974).
3. **Karadsheh N S**, Ananthanarayanan M, Ramaiah, A: Stabilization of active form of rabbit liver phosphofructokinase. *Biochem biophys Res Commn* 57:771, (1974).
4. **Karadsheh N S**, Uyeda K: Structure of Human Erythrocyte phosphofructokinase. *Federation Proc* 35: 1521, (1976).

5. **Karadsheh N S**, Uyeda K, Oliver R M: Studies on the structure of human erythrocyte phosphofructokinase. *J Biol Chem* 252: 7418, (1977)
6. **Karadsheh N S**, Uyeda K: Changes in allosteric properties of phosphofructokinase bound to erythrocyte membranes. *J Bio Chem* 252: 7418, (1977).
7. **Karadsheh N S**, Takegawa S, Fujji H, Miwa S: Rapid purification of human erythrocyte phosphofructokinase. *Clinica Chimica Acta*. 143: 51, (1984).
8. Elliot R E, **Karadsheh N S**, Kole J, Canellakis E D: Relationship of biochemical drug effects to their antitumor activity II. Diacridines and membrane-related reactions. *Biochem Pharmacol*. 34: 2123, (1985).
9. **Karadsheh N S**: Pyruvate kinase and glucose –6-phosphate dehydrogenase deficiencies in Jordan. *Dirasat*. Vol. XII: 75, (1985).
10. Madanat F, **Karadsheh N S**, Shamayleh H, Tarawneh M, Bata M, Tawil K, Khraisha S. Glucose –6-phosphate dehydrogenase deficiency in male newborns. *Jordan Med J*. 21: 205, (1986).
11. **Karadsheh N S**, Awidi A S, Tarawneh M S: Two new glucose –6-phosphate dehydrogenase (G6PD) variants associated with hemolytic anemia: G6PD Amman-1 and G6PD Amman-2. *Am J Hematol*. 22: 185, (1986).

12. Guis M S, **Karadsheh N S**, Mentzer W C: Phosphoglycerate kinase San Francisco: A new variant associated with hemolytic anemia but not neuromuscular manifestations. *Am J Hematol.* 25: 175, (1987).
13. **Karadsheh N S**, Kussie P, Lenthicum D: Inhibition of acetylcholinesterase by caffeine, anabaseine, methylprolidine and their derivatives. *Toxicol lett.* 55: 243, (1991).
14. Hadjiconstantinou M, **Karadsheh N S**, Rattan A K, Tejwani G A, Fitkin J G, Neff N H: GM1 ganglioside enhances cholinergic parameters in brain senescent rats. *Neuroscience.* 46: 681, (1992).
15. **Karadsheh N S**: Pyruvate kinase (PK) deficiency in Jordan. *Haematologica.* 78: 80, (1993).
16. **Karadsheh N S** Abu Rajab A: Athens-like G6PD variant associated with chronic non-spherocytic anemia found in Jordan. *Jordan Med J.* 26: 77, (1993).
17. **Karadsheh N S**, Khraisha S: Comparative study of the levels of antioxidants of students at Amman and Dead Sea level. *Aviat Space Environ Med.* 64: 1125, (1993).
18. **Karadsheh N S**, Shaker Q, Ratrou B: Metoclopramide induced methemoglobinemia in a patient with coexisting deficiency of glucose-6-phosphate dehydrogenase and NADH-cytochrome b5 reductase: Failure of methylene blue treatment. *Haematologica.* 86:559,(2001).

19. Sanchez-Velasco P, **Karadsheh N S**, Garcia-Martin A, Ruiz de Alegria C, Leyva-Cobian F: Molecular analysis of HLA allelic frequencies and haplotypes in Jordanians and comparison with other related populations. *Hum Immunol.* 62: 901, (2001).
20. **Karadsheh N S**, Gelbart T, Schulten H-J, Efferth T, Awidi A: Relationship between molecular variants and clinical manifestations in twelve glucose-6-phosphate dehydrogenase-deficient patients in Jordan. *Acta Haematol.* 114: 125, (2005).
21. **Karadsheh N S**, Moses L, Ismael I, Devaney J, Hoffman E :Molecular heterogeneity of glucose-6-phosphate dehydrogenase (G6PD) variants in Jordan. *Haematologica.* 90:1693(2005).
22. Flores, C., Maca-Meyer, N., Larruga, J.M., Cabrera, V. M, **Karadsheh, N.S** and Gonzalez, A.M.: Isolates in a corridor of migrations: A high-resolution analysis of Y-chromosome variation in Jordan. *J Hum Genet* 50: 435, (2005).
23. Gonzalez A M , **Karadsheh N** , Meyer N M , Flores C , Cabrera V M , Larruga J M : Mitochondrial DNA variation in Jordanians and their genetic relationship to other Middle East populations. *Annals of human biology* 35:212-231 (2008) .

Manuscripts in Preparation or Communicated for Publication:

1. **Karadsheh N S**, Simmonds H A: Accumulation of CDP-ethanolamine, CDP-choline and UTP in the erythrocyte of a patient suffering from chronic hemolytic

anemia.

2. **Karadsheh N S:** Effect of combined hyperoxia & smoking on the levels of antioxidants in human erythrocyte.

Papers Presented at Various scientific meetings:

1. **Karadsheh N S,** Moses L, Ismael I , Devaney J, Hoffman E :Molecular heterogeneity of glucose-6-phosphate dehydrogenase (G6PD) variants in Jordan. 8th international Union Of Biochemistry and Molecular Biology conference and ASBMB meeting, Boston, Ma. June12-16, 2004
2. **Karadsheh N S:** Effects of combined hyperoxia & smoking on the levels of antioxidants in human erythrocyte. 2nd International Meeting on Free Radicals in Health & Disease. May 8-12 ,2002 Istanbul, Turkey.
3. **Karadsheh N S,** Simmonds H A: Accumulation of CDP-ethanolamine, CDP-choline and UTP in the erythrocyte of an isolated case of chronic hemolysis. 17th International Congress of Biochemistry and Molecular Biology at San Francisco, Cal. , Aug. 1997.
4. **Karadsheh N S,** Shaker Q, Ratrou B: Metoclopramide induced methemoglobinemia in a patient with coexisting deficiency of glucose-6-phosphate dehydrogenase and NADH-cytochrome b5 reductase: Failure of methylene blue treatment. XVI International Congress of Clinical Chemistry at London, July 1996, Abstract p. 49.
5. **Karadsheh N S:** Two cases of pyruvate kinase deficiency in Jordan. 5th International Congress on Cell Biology at Madrid, Spain. July 1992, Abstract p. 14.1.148.

- 6. Karadsheh N S, Awidi A S, Tarawneh M S:** Two new glucose –6-phosphate dehydrogenase (G6PD) variants associated with hemolytic anemia: G6PD Amman and G6PD Hajjah. Fed Am Soc Exp Biol Meeting at Anaheim, Cal. April 1985. (Fed Proc 44: 1592, 1985).
- 7. Karadsheh N S, Uyeda K:** Structure of human erythrocyte phosphofructokinase. Am Soc of Biol Chem Meeting at San Francisco, June 1976 (Fed Proc 35: 152, 1976).
- 8. Karadsheh N S, Ramaiah A:** Purification, properties and sedoheptulose-7-phosphate kinase Activity of phosphofructokinase from goat mammary gland. Annual Scientific Meeting of Society of Biol Chem (India) 1073, p. 15.
- 9. Karadsheh N S, Ramaiah A, Ananthanarayana M:** Symposium on “Control Mechanisms in Cellular Processes” (Bombay) 1973, Abstract p. 7.
- 10. Karadsheh N S, Tejwani G A, Ramaiah A:** Sedoheptulose 7- phosphate kinase activity of phosphofructokinase from different tissues of rabbit. 41st. Annual Meeting of Society of Biol Chem (India) 1972, Abstract p. 61.
- 11. Karadsheh N S, Ramaiah A:** Some kinetic properties of yeast phosphofructokinase desensitized to inhibition by adenosine triphosphate. Convention of Chemists (India) 1972, Abstract p. 20.

