

Ala A. Al Rajabi

Vitamin K Research Laboratory
Jean Mayer USDA HNRCA at Tufts University
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Profile

PhD level nutritional biochemist, with 6 years experience as a pharmacist

- Experience in compound extraction techniques and analytical method development using HPLC, LC-MS and LC-MS/MS
- Understanding micronutrient metabolic pathways, characterization of intermediates and final products
- Basic experience in conducting animal and cell culture studies
- Diverse and solid background in nutrition and pharmacy
- Excellent communication and collaboration skills, attained through previous career as pharmacist
- Leadership, management and entrepreneurial skills, acquired through the founding and management of self-run pharmacy

Education

Friedman School of Nutrition Science and Policy

Tufts University, Boston, MA

PhD in Biochemical and Molecular Nutrition

2007- 2011

- Vitamin K Research Laboratory, Human Nutrition Research Center on Aging (HNRCA)
- Thesis project: Enzymatic Conversion of Phylloquinone to Menaquinone-4

Friedman School of Nutrition Science and Policy

Tufts University, Boston, MA

Master of Science in Nutritional Biochemistry and Metabolism

2005- 2007

- GPA: 3.69.
- Concentration: Cellular Physiology

College of Pharmacy

An-Najah National University, Nablus, Palestine

Bachelor degree in Pharmaceutical Sciences with High Honors

1995- 2000

- Elected President, College of Pharmacy Students' Club, 1999-2000

Research Experience

Vitamin K Research Laboratory, Jean Mayer USDA HNRCA

Tufts University, Boston, MA

PhD Candidate in Biochemical and Molecular Nutrition

2006- 2011

- Programming High Performance Liquid Chromatography (HPLC) for automated detection of gamma carboxyglutamate (GLA) derivative using reverse phase HPLC and fluorescent detection
- Determination of vitamin K by HPLC in clinical samples, statistical analysis and data interpretation
- Development of menadione detection methods using HPLC
- Conducting rodent study to examine metabolic conversion of vitamin K
- Performing cell culture studies to examine the role played by the intestine in vitamin K metabolism

Antioxidants Research Laboratory, Jean Mayer USDA HNRCA

Tufts University, Boston, MA

Graduate Research Assistant

May 2006- August 2006

- Literature review of antioxidant properties and their relationship to health and prevention of diseases
- Antioxidant capacity assays: ferric reducing antioxidant power (FRAP) and oxygen radical absorption capacity (ORAC)

Clinical Experience

Al Ribat Pharmacy, Hebron, Palestine
Self-Employed Head Pharmacist 2001- 2005

- Founded and managed pharmacy, hired and supervised assistant pharmacists, dispensed medication, provided pharmaceutical advice to patients

Al-Quds Pharmacy, Hebron, Palestine
Assistant Pharmacist 2000- 2001

- Dispensed medications, provided pharmaceutical advice to patients

Skills

- **Laboratory skills:** compound extraction techniques, analytical method development and validation using HPLC, LC-MS and LC-MS/MS, basic experience in conducting animal and cell culture studies, antioxidant capacity assays, enzyme immunoassay (EIA), basic molecular biology experience in recombinant DNA techniques including cloning & PCR
- **Statistical skills:** SPSS and SAS statistical software
- **Communication and collaboration skills:** attained through career as a pharmacist
- **Leadership, management and entrepreneurial skills:** acquired through serving as president of College of Pharmacy Students' Club and founding and management of self-owned pharmacy
- **Languages:** Arabic (native), English (fluent), French (working knowledge), Hebrew (basic)

Awards & Fellowships

Department of Nutrition Science Travel Award April 2011
• Friedman School of Nutrition, Tufts University

The Gerald J. Friedman Nutrition and Citizenship Fellowship 2007- 2010
• Given to most meritorious doctoral students entering Friedman School of Nutrition, Tufts University

United States Agency for International Development Presidential Scholarship Program (USAID PSP)
• Received during MS at Friedman School of Nutrition, Tufts University 2005-2007

Publications

- Al Rajabi A, Peterson J, Choi SW, Suttie J, Barakat S, Booth SL. Measurement of menadione in urine by HPLC. *Journal of Chromatography B*. 2010, 878(26):2457-2460.
- Booth SL, Al Rajabi A. Determinants of vitamin K status in humans. *Vitamins and Hormones*. 2008; 78:1-22.
- Al Rajabi A, Booth SL, Peterson J, Choi SW, Suttie J, Fu X. Menadione is an intermediate in conversion of phyloquinone to menaquinone-4 among Fischer 344 male rats. In preparation.
- Truong JT, Fu X, Saltzman E, Al Rajabi A, Dallal GE, Gundberg CM, Lichtenstein AH, Booth SL. Dietary and non-dietary determinants of vitamin K status in adults. In preparation.

Scientific Meetings

Experimental Biology (EB) 2011, Washington, DC 2011
• Al Rajabi A, Peterson J, Booth SL, Choi SW, Suttie J, Fu X. Menadione is an intermediate in phyloquinone to MK-4 conversion. Oral and poster presentations

Jean Mayer USDA HNRCA Seminar Series, Boston, MA 2010
• Al Rajabi A. The enzymatic conversion of phyloquinone to MK-4. Oral presentation

Experimental Biology (EB) 2009, New Orleans, LA 2009
• Al Rajabi A, Peterson J, Booth SL. Measurement of menadione in urine by HPLC. Poster presentation

First Annual Gerald J. Friedman Fellows Symposium, New York City, NY 2008
• Al Rajabi A. Novel biological roles for vitamin K. Oral presentation

Professional Affiliations

- Palestinian Pharmaceutical Association, Palestine 2000- Present
- American Society for Nutrition (ASN) 2007- Present