

**CURRICULIM VITAE     Asem Alkhateeb, Ph.D., ABMG diplomate**



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**EDUCATION AND CERTIFICATION**

- November 2007     *ABMG* (American Board of Medical Genetics) diplomate #2007006  
Clinical Molecular Genetics. [www.abmg.org](http://www.abmg.org)
- June 2004     *Ph.D.* University of Colorado HSC, Denver, Colorado, USA  
Program: Human Medical Genetics  
Thesis: Mapping a susceptibility locus for vitiligo to chromosome 1p31.3-p32.2 and investigating vitiligo candidate genes within the mapped locus; Advisor: Richard Spritz, MD.
- January 1999     *M.Sc.*, Jordan University of Science and Technology, Irbid, Jordan  
Program: Medical Technology/Human Genetics  
Thesis: Testing heterogeneity, investigating a common haplotype, and fine mapping for progressive pseudorheumatoid dysplasia; Advisor: Hatem El-shanti, MD.
- June 1995     *B.Sc.*, Jordan University of Science and Technology, Irbid, Jordan  
Program: Applied biology/Genetics and Molecular Biology

**PROFESSIONAL EXPERIENCE**

- 12/2009-now     Vice Dean, Faculty of Graduate Studies  
Jordan University of Science and Technology, Irbid, Jordan.
- 9/2008-9/2009     Assistant Dean, Faculty of Science  
*Assist the Dean in various administrative duties*  
Acting head of Forensic Sciences Department  
*Organize and help establish a new department in Forensic Sciences, the first in Jordan and the region*  
Jordan University of Science and Technology, Irbid, Jordan.
- 9/2006-now     Assistant professor of Human Genetics, Biotechnology Department  
Jordan Univeristy of Science and Technology, Irbid, Jordan.

- 6/2008-8/2008 Visiting professor of Human Genetics  
*Worked in the diagnostic lab of Dr. Elaine Spector on establishing a genetic test for Aicardi-Goutieres syndrome by sequencing TREX1 gene*  
Human Medical Genetics program and DNA diagnostic laboratory  
University of Colorado Denver, USA
- 6/2004-6/2006 Postdoctoral scholar, Clinical Molecular Genetics Lab  
[trainee for the **American Board of Medical Genetics (ABMG)**, Clinical Molecular Genetics]  
*Established genetic tests for multiple disorders and wrote their protocols. Trained many technicians on testing procedures. Worked as acting director while the director was in vacation.*  
University of Chicago, Chicago, USA
- 9/1997-12/1998 Teaching Assistant, Medical Technology Department  
Jordan University of Science and Technology, Irbid, Jordan
- 10/1995-10/1996 Lab Technician, Physical Anthropology Department  
Yaromouk University, Irbid, Jordan

### **Awards and Honors**

- 11/2005 Fellowship to attend the The National Academies Keck Futures Initiative conference: "The Genomic Revolution: Implications for Science and Health"-Irvine/California.
- 6/2004-6/2006 Fellowship in Clinical Molecular Genetics, U of Chicago, Chicago.
- 9/2003 Fellowship for the 8<sup>th</sup> class in Cancer Genetics-Bertinoro/Italy
- 8/1999-7/2001 **Fulbright** Ph.D scholarship
- 6/93, 1/94, 6/95 University Honor List, Jordan University of Science and Technology

### **Courses taught**

<u>Undergraduate</u>	<u>Graduate</u>
BT441 Human Genetics	B746 Molecular diagnosis of genetic diseases
B341 Molecular Genetics	B742 Advanced Molecular Biology
BT451 Molecular Biology	B743 Regulation of Gene Expression
BT301 Bioinformatics	
B103 General Biology	

### **Supervised (primary advisor or co-advisor) Master students and their thesis title:**

1. Nour El-Deen Marzouqa (2009-2011) Investigating whether variants in *PTPN22* and *CTLA4* genes increase the risk of thyroid disease in the Jordanian population.
2. Yousof Ja'aron (2009-2011) Genetic association studies of the *NALP1* gene and *HFE* gene in autoimmune thyroid disease in the Jordanian population.
3. Raya Ziadeen (2008-2010) Effect of statins on the leptin-to-adiponectin ratio in type II diabetic patients.

4. Anas Abu doleh (2007-2009) Protein Contact Map Prediction using a Neuro-fuzzy System.
5. Lina Qaisy (2007-2009) Prevalence and clinical symptoms of human metapneumovirus in Jordanian children hospitalized with lower respiratory tract infections
6. Amal Azreel (2007-2009) Analysis of *HFE* (HLA-like protein involved in iron[FE] homeostasis) gene mutations (C282Y,H63D, and S65C) in the Jordanian population.
7. Hiam Al-Rousan (2006-2008) Prevalence and clinical symptoms of human bocavirus in Jordanian children hospitalized with lower respiratory tract infections
8. Yazan Haddad (2006-2008) DNA methylation analysis of multiple tumor suppressor genes in Jordanian leukemia patients.
9. Abdel-Hameed Gabkri (2006-2008) *FGFR3* and *TP53* mutations in Jordanian patients with bladder cancer.

## Research Grants

1. Investigating whether variants in *PTPN22* and *CTLA4* genes increase the risk of thyroid disease in the Jordanian population (2010) – **\$9,155** *Jordan University of Science and Technology*.
2. Genetic association studies of the *NALP1* gene and *HFE* gene in autoimmune thyroid disease in the Jordanian population (2009) – **\$10,915** - *Jordan University of Science and Technology*.
3. Genetic dissection of age-related macular degeneration in Jordanian patients (2009) – **\$40,000** – *King Hussein Institute for Biotechnology and Cancer*.
4. Investigating whether *HFE* gene mutations increase the risk of age-related macular degeneration (AMD) and analyzing the contribution of *CFH* and *ARMS2* genes to AMD patients in Jordan (2008) – **\$15,240** – *Jordan University of Science and Technology*
5. Analysis of *HFE* (HLA-like protein involved in iron[FE] homeostasis) gene mutations (C282Y,H63D, and S65C) in the Jordanian population (2008) – **\$7,890** – *Jordan University of Science and Technology*
6. Genetic epidemiology and molecular analysis of the genetic variation in *PTPN22* and *NALP1* genes in vitiligo patients (2008) – **\$11,550** – *Jordan University of Science and Technology*
7. Identification and development of diagnostic and prognostic biomarkers of bladder cancer (2007) – **\$43,000** – *Arab Science and Technology Foundation* – Coinvestigator

## PUBLICATIONS

### PAPERS

1. **Alkhateeb A**, Qarqaz F (2010) Genetic association of *NALP1* with generalized vitiligo in Jordanian arabs. *Arch Dermatol Res* 302(8):631-634.
2. **Alkhateeb A**, Qarqaz F, Al-Sabah J, Al Rashaideh T (2010) Clinical Characteristics and *PTPN22* 1858C/T Variant Analysis in Jordanian Arab Vitiligo Patients. *Mol Diagn Ther* 14(3):179-184.
3. **Alkhateeb A**, Uzrail A, Bodoor K (2009) Frequency of the hemochromatosis gene variants in a Jordanian Arab population and in diabetics from the same region. *Dis Markers* 27(1):17-22.

4. Waggoner DJ, Raca G, Welch K, Dempsey M, Anderes E, Ostrovskaya I, **Alkhateeb A**, Kamimura J, Matsumoto N, Schaeffer GB, Martin CL, Das S (2005) *NSDI* analysis for Sotos syndrome – insights and perspectives from the clinical laboratory. *Genet Med* 7:524-533.
5. **Alkhateeb A**, Fain P, Spritz RA (2005) Functional promoter variant in the *FOXD3* melanoblast developmental regulator gene in a family with autosomal dominant vitiligo. *J Invest Dermatol* 125(2):388-391.
6. Spritz RA, Chiang PW, Oiso N, **Alkhateeb A** (2003) Human and mouse disorders of pigmentation. *Curr Opin Genet Develop* 13:284-289.
7. **Alkhateeb A**, Fain PR, Thody A, Bennett DC, Spritz RA (2003) Epidemiology of vitiligo and associated autoimmune diseases in caucasian probands and their families. *Pigment Cell Res* 16:208-214.
8. Fain PR, Gowan K, LaBerge GS, **Alkhateeb A**, Stetler GL, Talbert J, Bennett DC, Spritz RA (2003) A genomewide screen for autoimmune vitiligo: Confirmation of *AISI* on chromosome 1p31 and evidence for additional susceptibility loci. *Am J Hum Genet* 72:1560-1564.
9. **Alkhateeb A**, Stetler GL, Old W, Talbert J, Uhlhorn C, Taylor M, Fox A, Miller C, Dills DG, Ridgway EC, Bennett DC, Fain PR, Spritz RA (2002) Mapping of an autoimmunity susceptibility locus (*AISI*) to chromosome 1p31.3-p32.2. *Hum Mol Genet* 11(6):661-667.
10. Chloupkova M, Maclean KN, **Alkhateeb A**, Kraus JP (2002) Propionic acidemia: Analysis of mutant propionyl-CoA carboxylase enzymes expressed in *Escherichia coli*. *Hum Mutat* 19:629-640.
11. **Alkhateeb A**, al-Alami J, Leal SM, el-Shanti H (1999) Fine mapping of progressive pseudorheumatoid dysplasia: a tool for heterozygote identification. *Genet Test* 3(4):329-33.

#### MEETING PRESENTATIONS

1. **Alkhateeb A**, Clift K, Petras K, Dobyns WB, Das S. Analysis of the *STK9/CDKL5* gene in patients with suspected Rett syndrome and X-linked infantile spasms syndrome/West syndrome. [American Society of Human Genetics meeting, Salt Lake, Utah, 2005]
2. **Alkhateeb A**, Fain PR, Fox A, Bennet DC, Spritz RA (2002) *FOXD3* promoter variants co segregate with generalized vitiligo in chromosome 1p-linked families. *Am J Hum Genet* 71 (suppl.): 193. [American Society of Human Genetics meeting, Baltimore, Maryland, 2002].

#### ABSTRACTS

1. **Alkhateeb A**, Qarqaz F, Marzoqa N (2010) Association analysis of *SMOC2* gene Variant in Jordanian Arab Vitiligo Patients [Abstract 944] Presented at the American Society of Human Genetics, November 3, 2010, Washington, DC, USA.
2. **Alkhateeb A**, Al-Khatib S, Elbetieha A (2010) Analysis of hemochromatosis gene (*HFE*) variants C282Y and H63D in Age-related macular degeneration patients [abstract 359]. Presented at the Annual Clinical Genetics Meeting, March 26, 2010, Albuquerque, NM, USA.
3. **Alkhateeb A**, Uzrail A (2009) *HFE* variants do not contribute to the high prevalence of diabetes in the Jordanian population. [abstract 880]. Presented at the American Society of Human Genetics, October 21, 2009, Honolulu, HI, USA.

4. **Alkhateeb A**, Uzrail A, Bodoor K (2009) Frequency of hemochromatosis gene (HFE) in Jordanian Arab controls and in a diabetic population from the same region [abstract 349]. Presented at the Annual Clinical Genetics Meeting, March 27, 2009, Tampa, FL, USA.
5. Bodoor K, **Alkhateeb A**, Haddad Y (2008) Promotor methylation profile of a group of genes in Jordanians diagnosed with leukemia [abstract C28]. Presented at the American Association for Cancer Research International Conference, March 16, 2008, Dead Sea, Jordan
6. Bodoor K, Jaradat S, Jaradat Z, Matalga I, Gazo M, **Alkhateeb A**, Gabkari A, Shorman Y (2008) FGFR3 and p53 protein expressions in Jordanian patients with bladder cancer [abstract B11]. Presented at the American Association for Cancer Research International Conference, March 16, 2008, Dead Sea, Jordan.
7. Bodoor K, **Alkhateeb A**, Haddad Y (2007) Analysis of promoter methylation for 15 genes in different types of leukemias [abstract 293]. Presented at the annual meeting of The American Society of Human Genetics, October 24, 2007, San Diego, California.
8. Waggoner DJ, Welch K, Raca G, Shaefer GB, **Alkhateeb A**, Das S (2005) Sotos syndrome: a clinical laboratory perspective and indications for *NSDI* testing. ACMG meeting. Grapevine, Texas.
9. Raca G, **Alkhateeb A**, Das S (2004) Detection of large deletions in the *MECP2* gene by Real-Time Quantitative PCR. *Am J Hum Genet* 75 (suppl): 2678.
10. Spritz RA, Gowan K, LaBerge GS, **Alkhateeb A**, Bennet DC, Fain P (2003) Geneomewide mapping and analysis of genes for vitiligo and autoimmunity (Abstract) *Am J Hum Genet* 73 (suppl): 168.
11. Spritz RA, **Alkhateeb A**, Old W, Steller G, Fain P, Bennett D (2002) An autoimmunity susceptibility locus (*AISI*) associated with vitiligo and autoinamune hypothyriaidism maps to chromosome segment 1p31.3-p32.2. (Abstract) *J Invest Dermatol* 119(1):326 part 2.
12. **Alkhateeb A**, Stetler GL, Old W, Talbert J, Miller C, Pengelly P, Bennet DC, Spritz RA (2001) Mapping of susceptibility loci for vitiligo to chromosome 1p and 7 (Abstract) *Am J Hum Genet* 69 (suppl.): 530.
13. **Alkhateeb A**, Al-Alami J, Leal S, El-Shanti H (1999) DNA based testing for the identification of progressive pseudorheumatoid dysplasia carriers. (Abstract) *Am J Hum Genet* 65 (suppl.): A211.
14. El-Shanti H, Murray J, Semina E, Beutow K, Scherpbier T, Al-Alami J, **AlKhateeb A** (1997) The assignment of the gene responsible for progressive pseudorheumatoid dysplasia to the long arm of chromosome six and examination of *COL10A1* as a candidate gene. (Abstract) *Am J Hum Genet* 61 (suppl.): A274.

#### GENETIC TESTS DEVELOPMENT:

1. Genetic test for TREX1 (Aicardi-Goutieres syndrome) by sequence analysis.
2. Genetic test for *NIPBL* (Cornelia de Lange syndrome) by sequence analysis.
3. Genetic test for *CHD7* (Charge syndrome) by Denaturing High-Performance Liquid Chromatography (DHPLC) analysis.
4. Genetic test for *MECP2* deletions (Rett syndrome) by Real Time PCR using Taqman assay, and by Multiplex Ligation-dependent Probe Amplification (MLPA).
5. Genetic test for *ATP7A* deletions (Menkes disease) by Real Time PCR using Syber green assay.

## REFERENCES:

1. Richard A. Spritz, M.D. (Ph.D. thesis advisor)  
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Human Medical Genetics Program  
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