

Areej Mashhour Assaf, M.Sc PhD

Associate Professor in Molecular and Cellular Immunology.

Website: http://www2.ju.edu.jo/sites/academic/areej_assaf/default.aspx

Objectives:

Associate Professor in Immunology/ Molecular Biology/ Biochemistry and Clinical Biochemistry/ Microbiology.

Research Interest

My principal research interests lie in the field of molecular and cellular immunology in relation to cancer therapy also in biotechnology, biochemistry and microbiology.

Personal details

University of Jordan
Faculty of pharmacy
Dept. of Biopharmaceutics and Clinical Pharmacy
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Jordan

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Education

04/2005 –05/2008: University of Leicester, School of Medicine, Department of Infection, Immunity and Inflammation.

PhD in Molecular and cellular Immunology in relation to cancer therapy. (Short listed for the excellent PhD performance in the School of Medicine, 2008).

- **Title:** *Human Toll-like receptor 9 expression and function in haematological and non-haematological malignancies.*
- **Supervisor:** Dr. M J. Browning Senior Clinical Lecturer in Immunology

1991-1994 University of Jordan, School of Science. Jordan

M.Sc Biological Sciences- Biochemistry/Microbiology, (Very good).

- **Dissertation:** *studies on antimicrobial resistant patterns and plasmid profiles of Enterobacteriaceae isolates in Jordan.*

1986-1991 Jordan University of Science and Technology, School of Medicine. Jordan

B.Sc Allied Medical Sciences, (Very good).

Publications

- Bassam I. Amro, Randa N. Haddadin, Khaled Tawaha, Mohammad Mohammad, Sundus Mashallah, **Areej M. Assaf,** *In vitro* Antimicrobial and Anti-Inflammatory Activity of Jordanian Plant Extracts: A Potential Target

Therapy for Acne Vulgaris. Afr. J. Pharm. Pharmacol. . 2013; 7(29):2087-2099

- **Areej M. Assaf**, Randa N. Hadaddin, Nedhal A. Aldouri, Reem Alabbassi, Sundus Mashallah, Mohammad Mohammad, Yasser Bustanji. Anti-cancer, anti-inflammatory and anti-microbial activities of plant extracts used against hematological tumors in traditional medicine of Jordan. Journal of Ethnopharmacology. 2013;145(3):728-36.
- Yasser Bustanji, Nedhal AlDouri, Ala Issa, Sundus Mashallah, **Areej Assaf**, Talal Aburjai and Mohammad Mohammad. Cytotoxic effect of Mercurialis annua L methanolic extract on human solid cancer cell line. Scientific Research and Essays. 2012. Vol. 7(37), pp. 3218-3222,
- **Areej M. Assaf**. Stress-Induced Immune-Related Diseases and Health Outcomes of Pharmacy Students: A pilot study. Saudi Pharmaceutical Journal. Areej M. Assaf. Stress-Induced Immune-Related Diseases and Health Outcomes of Pharmacy Students: A pilot study. Saudi Pharmaceutical Journal. 2013; Jan.21 (1): 35-44.
- Hudaib MM, Tawaha KA, Mohammad MK, **Assaf AM**, Issa AY, Alali FQ, Aburjai TA, Bustanji YK. Xanthine oxidase inhibitory activity of the methanolic extracts of selected Jordanian medicinal plants. Pharmacogn Mag. 2011 Oct;7(28):320-4.
- **Assaf A.** Esteves H. Curnow SJ and Browning MJ. A threshold level of TLR9 mRNA predicts cellular responsiveness to CpG-ODN in haematological and non-haematological cell lines. Cell Immunol. 2009; 259 (1):90-9.

Teaching Experience

02/2014- Present, The University of Jordan.

Associate professor. School of Pharmacy, Dept. of Biopharmaceutics and Clinical Pharmacy.

- Teaching theoretical courses in Immunology, Medical genetics, Clinical Biochemistry for Pharmacy, Clinical Biochemistry for Pharm D, Biochemistry courses I and II, Biochemistry Laboratory. Seminars in Clinical pharmacy and Research methods for undergraduates in Pharmacy and PharmD. In addition to teaching advanced methods for graduates.

09/2008 – 02/2014. The University of Jordan. Jordan

Assistant professor. School of Pharmacy, Dept. of Biopharmaceutics and Clinical Pharmacy.

- Teaching Immunology, Medical genetics, Clinical Biochemistry for Pharmacy, Clinical Biochemistry for Pharm D, Biochemistry courses I and II, Biochemistry Laboratory. Seminars in Clinical pharmacy and Research methods for undergraduates in Pharmacy and PharmD. In addition to teaching advanced methods for graduates.

09/2004 –12/2007 University of Leicester, UK

Postgraduate Demonstrator

- Whilst doing my PhD I have constantly been involved with the supervision of undergraduates in their practical classes. At any one time I have been personally responsible for as many as sixty students.

09/2001-09/2004 University of Sharjah, UAE

Lecturer, School of health Sciences-Medical Laboratory Technology

- Teaching laboratory courses in molecular genetics lab., immunology and serology lab, general microbiology lab, medical bacteriology lab, and clinical diagnostic bacteriology labs.
- Clinical training supervision.
- I have established the Immunology and serology lab., general microbiology lab, medical bacteriology lab, and clinical diagnostic bacteriology labs.
- I have written the manuals for the general microbiology lab, medical bacteriology lab, and clinical diagnostic bacteriology labs.

09/1997-09/2000 Applied Science University , Jordan

Teacher, School of Pharmacy

- Teaching taught courses and laboratory sessions of Biochemistry (I & II), Clinical Chemistry (I & II), Clinical Nutrition, Immunology, Research methods, and Microbiology lab. (I & II).

09/1995-09/1997 Ahlia Amman University , Jordan.

Teacher, School of Pharmacy and Medical Sciences.

- Teaching taught courses and laboratory sessions of Hematology, Blood Banking, Immunology and Urinalysis and body fluids.
- Training the fifth year students of Medical Technology at the Jordanian hospital laboratories.
- I have established the Hematology, Blood Banking, Immunology and Urinalysis and body fluids labs.
- I have written the manual for Immunology lab.

09/94-09/95 Applied Science University , Jordan

Lecturer, School of Medical Sciences.

- Teaching laboratory courses of Hematology, Blood Banking and General Biology.
- I have established the Hematology, and Blood Banking labs.
- I have written the manuals for the Hematology, and Blood Banking labs.

01/93-01/04 University of Jordan, Jordan

Teaching assistance, School of Science-Biological Sciences

- Teaching laboratory courses of Hematology, Microbiology and General Biology

Professional Experience

01/06-30/6/14 Faculty of Medicine. Cardiff University.

Fellow visitor in experimental Haemtological cancer medicine center at the department of Haematology.

12/09-08/14. External examiner.

External examiner for six M.Sc students from the Faculty of Pharmacy, and Biotechnology. Jordan University of Science and Technology and Faculty of Science, Yarmouk University.

05/08- 08/08 University of Leicester,

Fellow visitor at Department of Infection, Immunity and Inflammation.

09/04-09/01 Assaf Medical laboratory

A medical technologist and Director Assistant.

- Assisted in the establishment of " Assaf Medical Laboratories", in 1994.
- Supervision on Immunology and Microbiology departments .

01/92-07/04 Medical Establishment for Middle East. Jordan

Medical Laboratory Technologist advisor

- I worked part time as an advisor and responsible for the external communications and affairs.
- I used to order kits and to prepare reagents for laboratory use.
- Selling medical equipments.

06/90-09/90 Hussein Medical Center. Jordan

Senior undergraduate Medical laboratory trainee

- Training in the different medical laboratory departments and instruments

09/90-01/91 Jordan University Hospital. Jordan

Senior undergraduate Medical laboratory trainee

- Training in the different medical laboratory departments and instruments

Conferences and Scientific Meetings

- A talk participation at The 1st Middle East Molecular Biology Congress held in Dubai-UAE from 14-17 September 2014.
- A member of the execution committee for the fifth international conference for Allergy and Immunity. 28-30 May, 2014. Amman-Jordan.
- A talk participation at the 15th Scientific Congress of the Association of Pharmacy Colleges in the Arab World & The 3rd International Conference of the Faculty of Pharmacy / The University of Jordan. held in Amman on October 9-11, 2012.
- A member of the execution committee for the 15th Scientific Congress of the Association of Pharmacy Colleges in the Arab World & The 3rd International Conference of the Faculty of Pharmacy / The University of Jordan. held in Amman on October 9-11, 2012.
- A talk participation at the 4th international conference for Allergy and Immunity. 19-21 September, 2012. Amman-Jordan
- A member of the execution committee for the 4th international conference for Allergy and Immunity. 19-21 September, 2012. Amman-Jordan

- A poster participation at the Seventh Palestinian Conference For Laboratory Medicine. Bethlehem, Palestine in March 15-17, 2012.
- A member of the execution committee for the third international conference for Allergy and Immunity. 13-15 October, 2010. Amman-Jordan.
- A talk participation at the Sixth Palestinian Conference For Laboratory Medicine. Al-Quds University, Jerusalem, Palestine in March 12-13, 2010.
- Attended the second AACR Dead Sea Conference in Jordan entitled “Advances in Cancer Research: From the laboratory to the clinic” March 7-10, 2010.
- Poster participation at the Second Middle East and North Africa (MENA) Cancer Research Conference. Amman- Jordan. October 2-3, 2009.
- Participated at the Targeting toll-like receptors - a new approach in the treatment of cancer, infection and autoimmunity meeting. The Royal Society of Medicine, London , UK. 9 Feb, 2009.
- Poster participation at the Jordanian International Pharmaceutical Conference, Alzaytoonah private University, Amman- Jordan. 15-17, Oct. 2008.
- Attended and participated the Leicester GRADschool 2007. 5-8.11.07. UK
- Represented the University of Leicester at the regional poster competition 2007 organised by UK GRAD Midlands Hub. 11.07.07. UK
- Poster participation and winner in the postgraduate festival 29.06.07. University of Leicester. UK
- Participation in the Second International JSP Conference (www.JSPLM.org) *Le Royal Hotel – Amman, Jordan. August 31 to September 3, 2006.*
- The Robert Baldwan Symposium, 29-30, June 2005. Nottingham , UK.
- The Career symposium. Jan. 2005 ,2006 and 2007. University of Leicester , UK.
- Applied Molecular Biology in Medical Diagnosis and Forensic Medicine .Al-Amal Medical Center, Jordan, 19-20 May 1998

Funded projects

- *Project grant " The role of TLR9, BAFF and APRIL genes involved in SLE patients on their treatment response and end-stage organ damage. ” (2014– 2015)". (10,00 JD, Deanship of Academic research, University of Jordan).*
- *Project grant “In vivo imaging of DNA repair “(2013-2016) (172,000 JD + 50,000 Euro, The Scientific research support fund. Jordan and Germany).*
- *Project grant "The endoplasmic reticulum (ER) stress in human colorectal cancer ” (2012 – 2014) (100,409 JD, The Scientific research support fund. Jordan)*

- *Project grant " The role of AMPK in colorectal cancer: Molecular, cellular and *in vivo* approaches" (2012– 2015)". (18,700 JD, Deanship of Academic research, University of Jordan).*
- *Project grant: The impact of a brief naturalistic stressor (academic study and examination) on responsive cytokines in University of Jordan medical students (Pharmacy) during the fall semester 2010/2011 (2010 – 2011). (15,600 JD, Deanship of Academic research, University of Jordan).*
- *Project grant "Molecular, cellular and *in vivo* approaches toward the treatment of colon cancer (2009 – 2013)". (16,000 JD, Deanship of Academic research, University of Jordan)*

Courses and Workshops

- Train of Trainers (TOT) Workshop. Certified by the Business Development Center and the British Embassy in Amman, Jordan. 6-10/12/2012.
- Competing Globally in Higher Education: Training on QA and Accreditation. A joint event between the Higher Education Accreditation Commission, Columbia University Middle East Research Center, Petra University, the American University of Madaba and al-Hussein Fund for Excellence. Jordan. June 19 - 20, 2011
- Creative researcher workshop. University of Leicester, UK Feb. 2007
- Supervising undergraduates and master students. University of Leicester, UK. March. 2007
- Targeting cancer RAF. University of Leicester, UK Feb. 2007
- Protein electrophoresis workshop University of Leicester, UK Oct. 2006
- Legal and Ethical issues in research, University of Leicester, UK. May 2005.
- Pub med upgrade, University of Leicester, UK. Feb. 2005.
- Protein bioinformatics, University of Leicester, UK. Dec. 2004
- Use of radiochemical in life science research, University of Leicester, UK. Nov. 2004.
- Powerful presentation, University of Leicester, UK. Nov. 2004
- Team working, University of Leicester, UK. Nov. 2004
- Endnote, University of Leicester, UK. Nov. 2004
- Radiation safety and genetic modification regulations, University of Leicester, UK Oct. 2004
- Risk assessment, biological and chemical hazards, University of Leicester, UK., Oct. 2004
- Safety induction program, University of Leicester, UK. Oct. 2004
- University Library and information retrieval, University of Leicester, UK. Oct. 2004

Scientific skills

Molecular Biology:

Western blotting, Immunoprecipitation. Gene transfections (stable and transients), Southern blotting, DNA and RNA preparations, Reverse transcriptase PCR, Real Time PCR. Competent cell and transformation. Protein determination assay.

Cell Biology:

Tissue culture (Adherent and suspension cells *ex vivo* and transformed cells), CD19+ cell separation, PBMCs cell separation, Cellular proliferation (³H-thymidine incorporation), Cell Signalling assays, cell transfection, Luciferase assay, Cytokines release assays, Cell Activation assays.

Immunological assays:

Immunofluorescence staining (Flow cytometry (FACs) and Confocal Microscopy), ELISA, Ag-Ab reactions, Direct & Indirect agglutination, double and single radial immunodiffusion, Enzyme immuno assay, Immunochromatography, Immunoelectrophoresis, Serum protein electrophoresis, MLR.

Microbiology:

Bacterial Culture, MIC, diagnostic and clinical microbiology techniques.

Other skills

1. Knowledge of Computer and Internet. Most of my work and analysis is by the use of computers and internet.
2. Team working; I have worked within a team in my lab. in addition to that I have worked in a team for three days at the Leicester GRADschool 2007.
3. Problem solving; I have solved most of the technique's problems involved in my research and helped to solve those involved in my colleague's work.
4. Communications; I have contacted lots of researchers in UK and USA working in relative projects for their help and discussed that with them
5. Decisions maker.
6. Independent; I used to read more and try different ways to decide for the best methods used.

Awards/Honors

- The Daniel Turnberg UK/Middle East Travel Fellowship Award, round five. 2013.
- Short listed for the School of Medicine Lauder Doctoral Prize for Excellent MD or PhD performance. June , 2008, University of Leicester, UK
- Winner in the poster festival of the postgraduate research 2007. University of Leicester, UK
- Commended Certificate for the postgraduate presentation, 2005, University of Leicester, UK
- Professional Women's Advisory Board / American Biographical Institute, 2000

Interests

Traveling and exploring countries, outdoor adventures, social activities, reading, surfing internet, sports and fine arts.

General Skills

- Fluent Arabic Language (Native Language)
- Excellent: English Language .
- General Computer Skills: MS Word, MS Excel, MS Power Point, Internet Surfing.

Affiliations

- Jordanian Society for Allergy and Immunity (*Member*).
- British Society for Immunology. (*Member*)
- Jordan Society for Medical Laboratory Sciences. (*Member*)
- Jordanian Biological Society (*Member*)
- International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) (*Member*).

Professional Services

- A member of the execution committee for the fifth international conference for Allergy and Immunity. 28-30 May, 2014. Amman-Jordan
- A member of the execution committee for the 15th Scientific Congress of the Association of Pharmacy Colleges in the Arab World & The 3rd International Conference of the Faculty of Pharmacy / The University of Jordan. Held in Amman on October 9-11, 2012.
- A member of the execution committee for the fourth international conference for Allergy and Immunity. 19-21 September, 2012. Amman-Jordan
- A member of the execution committee for the third international conference for Allergy and Immunity. 13-15 October, 2010. Amman-Jordan.
- Member of the organizing committee of the 8th Arab Conference of Clinical Biology.
- Member of the organizing committee of the 1st Jordanian Conference of Medical Laboratory Sciences. Amman, Jordan, April 28th, 1997

References:

Upon request.