

Curriculum Vitae

Mona Rushdi Hassuneh, Ph.D.
Department of Applied Biology
College of Sciences
University of Sharjah
Sharjah, P.O. Box: 27272
United Arab Emirates

Tel: +971-6-505 3818
E. mail: mhassuneh@sharjah.ac.ae
or mona.hassuneh@gmail.com

Educational Background:

- Virginia Polytechnic Institute and State University (Virginia Tech), May 1996. Ph. D. Degree in Immunology. “Role of Autocrine Growth Factors in Tumorigenic Transformation of T cells”.
- Kuwait University, School of Medicine, August 1989 to July 1990. (Master’s Program in Pathology, Interrupted by Events in the Gulf).
- Kuwait University, May 1988. B. Sc. Degree (Zoology).

Professional Experience:

- **Associate Professor**, University of Sharjah, Departments of Applied Biology. Faculty of Science. September 2015- to date
- **Visiting Associate Professor**, University of South Carolina, Department of Pathology Microbiology Immunology, School of Medicine. Spring 2015.
- **Associate Professor**, University of Jordan, Departments of Biological Sciences. Faculty of Science. June 2013- to date (*on Sabbatical Leave (Spring 2015 –spring 2016)*)
- **Assistant Professor**, University of Jordan, Departments of Biological Sciences. Faculty of Science. October 2000-2013.
- **Visiting Assistant Professor**, University of South Carolina, Department of Pathology Microbiology Immunology, School of Medicine. May 2012 – September 2012.
- **Assistant Dean for Students Affairs**, , Faculty of Science, University of Jordan, September 2003- September 2004; December 2009 – August 2010.
- **Assistant Dean for Development Affairs**, , Faculty of Science, University of Jordan, September 2004- September 2005.
- **Research Associate**, Virginia Polytechnic Institute and State University, Biology Department in Dr. Nagarkatti’s lab. July 1999- September 2000.
- **Assistant Professor**, Jordan University for Science and Technology (JUST), Joint Appointment in the Departments of Applied Biology and Medical Technology. Faculty of Arts and Sciences and Faculty of Medicine. September 1996-September1999.
- **Teaching Assistant**, Virginia Polytechnic Institute and State University, Department of Biology, January 1992 to May 1995. (Taught laboratory courses for General Biology and Immunology).
- **Teaching Assistant**, Kuwait University, Department of Zoology, August 1988 to September 1989. (Taught laboratory of the following courses: General Biology, Cell Biology, Immunology, Physiology, Neurophysiology and Genetics).

Scholarships/Awards/Grants:

- Deanship of Scientific Research, University of Sharjah, Assessing the ability of sparteine sulfate and harpagoside to induce regulatory T cell profile *in vitro.*; 9964 AED
- Hamdi Mango Center for Scientific Research, Jordan University, Production of Novel Monoclonal Antibodies that Distinguish Between Cannabinoid Receptors CB1 and CB2, 15,000 JD September 2009.
- Deanship of Scientific Research, Jordan University. Assessment of the ability of Jordanian propolis to suppress the growth of tumor cells. 11000 JD, June 2009.
- King Hussein Cancer Center and the National Biotechnology Center, The Higher Council for Science and Technology. The Characterization of Novel Monoclonal Antibodies Generated Against Human Breast Cancer and T Cell Leukemia. 24000 JD, May 2007
- The Higher Council for Science and Technology, The National Net Work for Nanotechnology and Advanced Material. Assessing the Feasibility of Using Novel Locally Generated Fe- based Nanoparticles in the Cancer Diagnosis and Therapy. 20000 JD, Mach 2006.
- Deanship of Scientific Research, Jordan University, Assessment of the Role of Interleukin 15 (IL-15) in the Tumorigenesis and proliferation of Human Tumor Cells, 16000 JD, August 2003.
- Hamdi Mango Center for Scientific Research, Jordan University. Comparative, controlled pilot study to determine the anti-tumor potency of New Dihydroazepine-fused Indoloquinolines on tumor cell lines, 10000 JD, May 2003.
- Deanship of Scientific Research, Jordan University fro Science and Technology. Immunomodulatory effect of pesticide commonly used in Jordan on the immune system, 3000 JD, July 1997.
- Graduate Research Assistantship, Nagarkatti lab, \$2500, Spring 1996.
- Graduate Teaching Assistantship, Biology Department, Virginia Tech, Spring 1992 - Fall 1995.
- Full Instructional Fee Tuition Waiver, Biology Department, Virginia Tech, \$6000, Fall 1994, Spring and Fall 1995.
- Sigma Xi Grants-in-Aid of Research Award. Role of Autocrine Growth Factors in the Tumorigenic Transformation of T cells. \$450, Spring, 1994. Plus matched award by the Biology Department, Virginia Tech, \$450, Spring, 1994.
- Awarded first place in the student paper competition, Virginia Academy of Science (Medical Sciences section), May, 1994.
- Awarded first place in the student paper competition, The Annual meeting of the Virginia Branch of American Society for Microbiology, November, 1993.
- Awarded first place in the student paper competition, Virginia Academy of Science (Medical Sciences Section), May, 1993.
- Sigma Xi Grants-in-Aid of Research Award. Role of Autocrine Growth Factors in the Tumorigenic Transformation of T cells. \$400, Spring, 1992. Plus matched award by the Biology Department, Virginia Tech, \$400, Spring, 1992.

Graduate Advisorships:

- Served as major advisor for Miss Manal Abbas Spring 2007 – Summer 2010. Ph. D. thesis entitled: “The Induction of Tolerance to Normal Human Cell antigens for the Purpose of Production of Novel Monoclonal Antibodies Against Abnormal Human Tumor Cell Antigens”
- Served as major advisor for Miss Mysaa AlBuni , Fall 2004- Summer 2007. M. Sc. thesis entitled: “The Effect of Cyclosporin A on Tumor Cell Lines of Various Histological Origins”. Faculty of Science, Department of Biological Sciences, University of Jordan.
- Served as major advisor for Mr. Yasir Adil Turki, Spring 2004- Fall 2006, Ph. D. thesis entitled: “ Assessment of the Immunomodulatory and Antitumor effects of Some Medicinal Plants Extracts on Balb/c Mice”. Faculty of Science, Department of Biological Sciences, University of Jordan.
- Served as major advisor for Miss Sundus Mashallah, Spring 2001- Fall 2004, M. Sc. thesis entitled: “Production of Unique Monoclonal Antibody to be used in Breast Cancer Diagnosis”. Faculty of Science, Department of Biological Sciences, University of Jordan.
- Served as major advisor for Mr. Wamidh Hadi Talib , Spring 2001- Fall 2004, M. Sc. thesis entitled: “ The Generation of Novel Monoclonal Antibodies to be Used in Diagnosis of Tumors of Lymphoid Origin”.
- ***Served as a co Advisor for the following students:***
 - Mrs. Fatima Aljmal, Ph.D. in Biology, Faculty of Science(2014-2016)
 - Mr. Ibrahim Al-Majaly, Ph.D. in Biology, Faculty of Science (2011-2013)
 - Miss Aysha Abu-Rub, MSc. of Medical Laboratory Sciences, Faculty of Medicine (2011-2013)
 - Mr. Riyadh Al-Najadah, MSc. of Plant Protection, Faculty of Agriculture (2003-2005)

Teaching Experience (at University of Jordan):

- Immunology for Undergraduate 0344443 (26 Semesters)
- Postgraduate (M. Sc. program) 0304733 Advanced Immunology (8 Semesters)
- Postgraduate (Ph. D. program) 0304932 Immunological Technologies and Immunochemistry (2 Semesters)
- Hematology 0304562 (3 Semesters)
- Cytology 0304105 (4 Semesters)
- General Biology 1 (14 Semesters)
- General Biology 2 (3 Semesters)

Courses taught at JUST included (Immunology at both graduate and undergraduate levels, Biotechnology and General Biology 1 and 2)

Professional / National Committees:

- Vaccine and Sera Committee. Jordanian Food and Drug Administration (JFDA) (January, 2009-February 2012).
- Committee for Student trials/affairs. (Fall and Spring 2010-2011)
- National Committee for Nanotechnology. Higher Council for Science and Technology (Fall 2008 – Spring 2009).

Publications/ Patents:

1. Aisheh Ali, Yousef R. Badran, Mona R. Hassuneh, Khaled S. Sanber, Said I. Ismail. **2015**. The effect of various interleukins on antibody production by Epstein Barr Virus (EBV) immortalized B cells. ***Monoclonal Antibodies in Immunodiagnosis and Immunotherapy***. Jun;34(3):162-8,.
2. The Use of Bare or Functionalized Multiple element Magnetic Nanoparticles in Cancer Diagnosis and Therapy. INVENTORS: Khaled Najieb Elshuraydeh, Mona Rushdi Hassuneh, and Hanan Issa Malkawi. **Registered Patent # (2847), Ministry of Industry and Trade, Amman, Jordan. Approved Sep., 2014**.
3. Mona R. Hassuneh, Mitzi Nagarkatti and Prakash S. Nagarkatti. **2013**. The Role of Interleukin (IL)-10 in the Regulation of Tumorigenicity of a T Cell Lymphoma. ***Leukemia and Lymphoma***. 54(4):827-834.
4. Mona R. Hassuneh, Wamidh H. Talib and Maysaa' A. Albini. **2012**. Immunotoxicity Induced by Subtoxic Doses of Paraquat: Implication of Shifting Cytokine Gene Expression Towards T_H17 Phenotype. ***Chemical Research in Toxicology***. Oct 15;25(10):2112-6
5. Khaled N. Elshuraydeh, Hanan I. Malkawi, and Mona Hassuneh. **Bionanotechnology II: Global Prospects, Chapter 17**. Production of Bare Multiple-Element Magnetic Nanoparticles and Their Use in Fast Detection and Removal of Pathogenic Bacteria from Water Resources. 2011, Taylor & Francis Group Publishing, London, GB. P: 315-326.
6. Anticancer and Antibacterial Agents, UK registered patent (GB2442951). Inventors: Al- Qaisi, A., Hiari, Y. M., M., Zahra J., Hassuneh, M. R and El-Abadelah, M. **Approved Feb., 2011**.
7. Method for the Production of Bare (Non-functionalized) Multiple Element Magnetic Nanoparticles and their use in Fast Detection and Removal of Pathogenic Bacteria from Water Resources. INVENTORS: Khaled Najieb Elshuraydeh, Hanan Issa Malkawi, and **Mona Hassuneh**. **Registered Patent # (2450), Ministry of Industry and Trade, Amman, Jordan. Approved Feb., 2008**.
8. Abu Shuheil, M. Y., Hassuneh, M. R. Al-Hiari, Y. M., Qaisi, A. M. and El-Abadelah, M. M. **2007**. Heterocycles[h]- fused onto 4-oxoquinoline-3-carboxylic acid, III Facile synthesis and antitumor activity of model heterocycles [a]-fused onto pyrido[2,3-f]quinoxaline-3-carboxylic acids. ***Heterocycles***. 71(10): 2155-2172.
9. [a] fused heterocyclic-pyrido [2,3-f] quinoxaline-2-carboxylic acid derivatives and their pyrido [3,2-g] analogs, a process for their preparation and their potential uses as anticancer and antibacterial agents". **Registered Patent # (2345), Ministry of Industry and Trade, Amman, Jordan. Approved 2007**.
10. Camacho IA, Hassuneh MR, Nagarkatti M, Nagarkatti PS. **2001**. Enhanced activation-induced cell death as a mechanism of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-induced immunotoxicity in peripheral T cells. ***Toxicology***. 165(1):51-63.
11. Abuharfeil N, Sarsour E, Hassuneh M. **2001**. The effect of sodium nitrite on some parameters of the immune system. ***Food Chem Toxicol***. 39(2):119-24.

12. Zeytun A, Hassuneh M, Nagarkatti M, Nagarkatti PS. **1997**. Fas-Fas ligand-based interactions between tumor cells and tumor-specific cytotoxic T lymphocytes: a lethal two-way street. *Blood*. 90(5):1952-9.
13. Hassuneh, M., Nagarkatti, P. S. and Nagarkatti, M. **1997**. Evidence for the participation of interleukin-2 and interleukin-4 in the regulation of autonomous growth and tumorigenesis of transformed cells of lymphoid origin. *Blood* **89**: 610.
14. Hassuneh, M., Nagarkatti, P.S. and Nagarkatti, M. **1996**. Dysregulation of Cytokine Gene Expression as a cause of T cell Transformation and *In vivo* Tumorigenicity. In *Molecular Biology of Hematopoiesis*, Ed. N. G. Abraham, Plehum Press, New York.
15. Nagarkatti, M., Hassuneh, M., Seth, A., Manickasundari, K. and Nagarkatti, P. **1994**. Constitutive Activation of IL-2 Gene in the Induction of Spontaneous *ex vivo* Transformation and Tumorigenicity of T cells. *Proc. Natl. Acad. Sci. USA*. **91**:7638.
16. Nagarkatti, M., Hassuneh, M., Seth, A. and Nagarkatti, P. S. **1993**. Inhibition of Tumorigenicity of an *ex vivo* transformed T cell clone using antibodies against interleukin-2 and interleukin-2 receptors. *Recent Adv. Chemotherapy* p:998-999.
17. Hammond, D., Nagarkatti, P., Gote, L., Seth, A., Hassuneh, M. and Nagarkatti, M. **1993**. Double-negative T cells from MRL-Lpr/Lpr mice mediate cytotoxic activity when triggered through adhesion molecules and constitutively express perforin gene. *J. Exp. Med.* **178**:2225.

Professional Memberships:

- Member of the American Association of Immunologists (AAI)

Consultancies:

Have performed several studies/reports through the Center for Consultations at University of Jordan for private sector companies:

- The antitumor potential of silver tartrate.
- The efficacy of Aquacil reagent as antiseptic agent in drinking water.
- The efficacy of linalool (Coriander oil) as a hypoglycemic agent.

Presentations at Meetings:

1. *Manal Abbas and Mona R. Hassuneh. Production of Novel Monoclonal Antibodies against Pan Leukemia Antigens Following Induction of Tolerance to Normal Antigens in Balb/C Mice*". The 4th International Meeting fro Immunology and Allergy, Amman– Jordan. 19-21 September, 2012.
2. Mona R. Hassuneh, Sawsan A. Oran, Yassir Turki and Maysaa' Albinni. **The Immunomodulatory and Antitumor Effects of *Globularia arabica***. Presented at the Second AACR International Conference on "Advances in Cancer Research: From the Laboratory to the Clinic". March, **2010**, Dead Sea, Jordan.
3. Mona R. Hassuneh, Khaled N. Elshuraydeh and Hanan I. Malkawi. **An Assessment of the Feasibility of Using Novel Multiple-element Magnetite Nanoparticles (MMN) in Cancer**

Diagnosis and Therapy. Presented at the Nanostructured Advanced Materials International and regional conference. November 2008 Amman, Jordan.

4. *Mona R. Hassuneh, Yassir A. Turki and Sawsan A. Oran.* **The Immunomodulatory and Antitumor Effects of the Crude Aqueous Suspension of *Juniperus phoenicea* Cones in Balb/c Mice.** Presented at the “Scientific day of Medicinal, Aromatic and Poisonous Plants” at Zarka University College, Al-Balqa’ Applied University, Amman Jordan, April 2009.
5. *Mona R. Hassuneh, Sundos H. Mashallah and Wamidh H. Tali.* **Investing the Genetic Similarity between Mice and Human to Generate Novel Monoclonal Antibodies against Human Cancers.** Presented at the American Association for Cancer Research “Advances in Cancer Research From the Laboratory to the Clinic”. March, 2008, Dead Sea, Jordan.
6. *Maysaa’ A. Albinni and Mona R. Hassuneh.* **An Insight into the Mechanism of the Anticancer Effect of Cyclosporin A.** Presented at the American Association for Cancer Research “Advances in Cancer Research From the Laboratory to the Clinic”. March, 2008, Dead Sea, Jordan.
7. *Mona R. Hassuneh.* **A Possible Role of Interleukin 15 in the Maintenance of Human Cancer Cell Lines *in Vitro*.** Presented at the 12th International Congress of Mucosal Immunity (ICMI), Boston, MA, USA, June, 2005.
8. *Mona Hassuneh.* **The Immunotoxic Effects of Paraquat.** 12th International Congress of Immunology (ICI) and 4th Annual Conference of the Federation of Clinical Immunology Societies (FOCIS). Montréal, Canada, July 18th to 23rd, 2004
9. *Mona Hassuneh, Mitzi Nagarkatti, Prakash Nagarkatti.* **Effect of Interleukin (IL)-10 on the Tumorigenicity of T Cell Lymphomas.** 11th International Congress for Immunology. Stockholm, Sweden. 22nd - 27th of July, 2001
10. *Lombard, C., Mc KallipR., Zeytun, A., Hassuneh, M. Nagarkatti, M. and Nagarkatti, P. S.* **Characterization of tumor-derived Fas-ligand and its ability to induce apoptosis in immune cells of the host.** 3rd International Cancer Gene Therapy meeting, Pasteur Institute, July 2000. Paris, France.
11. *Hassuneh, M., Nagarkatti, M. and Nagarkatti, P.* **Role of interleukin 10 in the tumorigenicity of lymphomas.** 20th Annual Seminar of Cancer Researchers in Virginia Journal. March 11th, 2000. Norfolk, VA.
12. *Nagarkatti, P. S., Zeytun, A. and Hassuneh, M.* **Apoptosis induced by cytotoxic T cells and reverse apoptosis mediated by tumor cells may play a crucial role in host-tumor interactions.** 4th International Union of Biochemistry and Molecular Biology. July 14-17, 1996. Edinburgh, Scotland.
13. *Nagarkatti, M. and Hassuneh, M.* **Dysregulation of cytokine gene expression as a cause of T cell transformation and *in vivo* tumorigenicity.** Presented at the 9th symposium of the Molecular Biology of Hematopoiesis. June 23-27, 1995. Genoa, Italy.
14. *Hassuneh, M. Nagarkatti, P.S. and Nagarkatti, M.* **Dysregulation of the cytokine gene expression as a cause of T cell transformation and *in vivo* tumorigenicity.** Presented at the National Am. Assoc. Immunol. Meeting, April 9-13, 1995. Atlanta, GA.
15. *Nagarkatti, M. Hassuneh, M.* **Dysregulation of the cytokine gene expression as a cause of T cell transformation and the role of immunosuppressive molecules in tumorigenicity.** Presented at the Virginia -Maryland Regional College of Veterinary Medicine Seventh Annual Research Symposium, January, 1995. Blacksburg, VA.

16. Nagarkatti, M. and Hassuneh, M. **Dysregulation of the IL-2 gene expression as a cause of T cell transformation and its potential hazard in immunotherapy or immunorehabilitation.** Presented at the International Congress of Immunorehabilitation. July, 1994. Sochi, Russia.
17. Hassuneh, M. and Nagarkatti, M. **The transformation and maintenance of T cell lymphomas as a result of IL-2 autocrine stimulation.** Presented at the 72nd annual meeting of the Virginia Academy of Science at James Madison University. May, 21st, 1994. Harrisonburg, VA.
18. Hassuneh, M. and Nagarkatti, M. **Role of IL-2 as an autocrine growth factor in the transformation and maintenance of T cell lymphomas.** 14th Annual Seminar of Cancer Researchers in Virginia. March, 26th, 1994. Blacksburg, VA.
19. Hassuneh, M. and Nagarkatti, M. **Perturbation in autocrine growth factor production as a cause of T cell transformation and its regulation using growth factor-specific antibodies or antisense oligonucleotides.** Presented at the Annual Meeting of the Virginia Branch of American Society for Microbiology. Nov, 1993. Lexington, VA.
20. Nagarkatti, M., Hassuneh, M. and Seth, A. **Inhibition of autocrine growth and tumorigenicity induced by a T cell clone *in vivo* using monoclonal antibodies against cytokines and cytokines receptors.** Presented at the 18th International Congress of Chemotherapy. July, 1993. Stockholm, Sweden.
21. Hassuneh, M. and Nagarkatti, M. **Role of autocrine growth factors in tumorigenic transformation of T cells.** Presented at the 71st meeting of the Virginia Academy of Science at old Dominion University. May 20-21, 1993. Norfolk, VA.
22. Hassuneh, M. and Nagarkatti, M. **Role of IL-2 as an autocrine growth factor in T cell transformation and tumorigenesis.** Presented at the American Cancer Society, 13th Annual Cancer Researchers in Virginia Symposium. April 24th, 1993. Richmond, VA.