Fatheia Nabeil Hamza

Alfaisal University, Riyadh, Saudi Arabia

Born August 25,1983

Sudanese Citizen

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Main Expertise Areas

Cell Biology, Inflammation, Molecular Biology Techniques, Experimental Design, Tissue Culture, Flow Cytometry, Handling & analysing Tuberculosis Samples, Leishmania culture, ELISA, Western blotting, PCR quantification & real time PCR & Statistical packages (GraphPad).

Education:

2015-2017	**MSc in Biomedical science, First Class.** Neutrophil Migration in response to LPS: Possible Role of CD4 on Neutrophils in Murine Model of ALI/ARDS. Faculty of Medicine, Alfaisal University, Riyadh, KSA.
2001-2007	**Bachelor of Science (Hons) First Class, Zoology.** Distribution and Abundance of snails in Seilate Scheme. Faculty of Science, University of Khartoum, Khartoum, Sudan.

Work and Research experiences:

09/2018 - Present **Research assistant, Lecturer, College of Medicine, Department of Biochemistry and Molecular Medicine, Alfaisal University, Riyadh, K.S.A.**

Responsible for teaching molecular biology laboratory and basic biochemistry. participated in different research projects in my department and other department in college of medicine.

2015- 2018	**Lab Manager/ Lab technician - College of Medicine, Department of Biochemistry and Molecular Medicine, Alfaisal University, Riyadh, K.S.A.**
	Responsible for lab ordering, lab safety, and establishing molecular biology lab & pharmaceutical lab. Conducting DNA extraction, PCR, Real-time PCR experiments.
2014- 2015	**Product specialist- Enjaz Medical Modern Company, Riyadh, K.S.A.**
	Responsible for organizing and delivering workshops for lab equipment training such as real-time PCR, cell homogenizer & flow cytometry.
2013- 2014	**Trainee/ Research technician, King Faisal Specialized Hospital & Research Centre, Molecular Oncology Department, Riyadh, K.S.A.**
	Responsible for tissue culture of cancerous cells.
2011- 2012	**Trainee/ Research technician, King Faisal Specialized Hospital & Research Centre, Stem cell & tissue re-engineering program, Riyadh, K.S.A.**
	Investigating the biology of primitive hematopoietic stem cells in cord blood and bone marrow samples.
2009-2010	**Teaching assistant, University of Medical Science & Technology, Khartoum, Sudan.**
	Teaching basic biology lab techniques
02/2009 – 05/2009	**Trainee/ Research technician, Department of Molecular Biology & Immunology, Institute of Endemic Diseases, Khartoum, Sudan.**
	Handling Tuberculosis samples and detection of Mycobacterium tuberculosis using PCR.
2008 - 2009	**Teaching assistant, Faculty of Science, University of Khartoum, Sudan.**
	Teaching biology for 2nd year science students.
08- 09/2008	**Trainee/ Laboratory technician, Department of Virology & Haematology, Pasteur Institute, Ministry of Health, Casablanca, Morocco.**
	Handling blood samples and performing basic blood testing, diagnosis of HIV using ELISA.

Laboratory skills and techniques:

- **Cell culturing and isolation**

    - Handling and maintenance of long-term cultures and cell differentiation.
    - Macrophages and Neutrophils isolation
    - Isolation of peripheral blood mononuclear cells (MNCs) from cord blood and bone marrow samples.
    - Leishmania culture.

- **Flow Cytometry applications including.**

    - Surface and intracellular molecules staining.
    - DNA cell cycle analysis.
    - Cell viability.
    - Florescent Activated and Magnetic Activated Cell sorting (FACS & MACS).
    - Data analysis and storage using the Cell quest and Pro-Cell quest software.

- **Molecular Biology and proteomics techniques:**
    - DNA & RNA extraction and cDNA synthesis
    - PCR quantification and real time PCR.
    - Mycoplasma test for the cultured cell.
    - Protein extraction and quantification: Bradford method.
    - Western blotting.

- **Assays and tests:**

    - ELISA.
    - In vitro transwell migration
    - Basic clinical Hematology tests (CBC, PT, PTT, and ESR).
    - Direct Agglutination Test.
    - Diagnosis of leishmaniasis via smear, culture, and Leishmanin Skin Test (LST).
    - Diagnosis of Tuberculosis using PCR technique.

Relevant Experiences:

- Excellent written and oral communication skills.
- Flexible, resilient, and confident.
- Excellent leadership skills.
- Effective organizational and excellent time management skills.
- Self-motivated, dynamic and an effective team player.

Languages: English (fluent) & Arabic (Native speaker).

Honours:

- Awarded a fully funded Scholarship from King Faisal Foundation - Prince Sultan Program - for MSc in Biomedical science 2016-2017
- Awarded Three-minute thesis presentation competition 2012 (Third position) during the training at King Faisal Specialized Hospital & Research Center, Stem cell & tissue re-engineering program, Riyadh, K.S.A.
- Awarded the Best Academic writing competition in 2012 (second position) during the Stem cell & tissue re-engineering training program at King Faisal Specialized Hospital & Research Center, Riyadh, K.S.A.

Peer-reviewed Papers:

- **Hamza FN** & Alekhmimi N., Bou Matar DS, Barakzai A, Al Heialy S, Kvietys PR, Al-Kattan K. (2021) Pulmonary Innate Immune Response to Inhaled LPS is Impaired in CD4 Deficient Mice. Sponsored by KACKST (2M SR). Work description: graduate student & research assistant. Status (submitted to Frontiers in cellular & infection microbiology)
- **Hamza FN** & Fakhoury HMA (2021). A study of the association of *Vascular Endothelial Growth Factor* gene polymorphisms with hypertension. Sponsored by IRG (50,000SR). Work description: research assistant. Status (in progress).
- **Hamza FN** (2017). Neutrophil migration in response to LPS: possible role of CD4 on neutrophils in murine model of ALI/ARDS. (Master thesis). Alfaisal University, Riyadh, KSA.

Conference & Scientific Committees Involvement:

- Ameera Gaafar, Ayodele Alaiya, Aminah Ghazi Alotaibi, **Hamza FN**, Alia. Iqniebi, Pulicat Subramanian Manogaran, A Al-Mazrou, Iman Barhoush, Morad Ahmed Alkaff, Hind Al-Humaidan, Khalid Al-Hussein. Cellular and Molecular Profiling of Primitive HSC Subsets in Umbilical Cord Blood samples: Implications for Cellular Therapy 2011 Annual Research Report, 16-17April 2014, Prince Salman Auditorium, KFSHRC, Riyadh KSA.

- Ameera Gaafar, Ayodele Alaiya, Aminah Ghazi Alotaibi, **Hamza FN**, Alia. Iqniebi, Pulicat Subramanian Manogaran, A Al-Mazrou, Iman Barhoush, Morad Ahmed Alkaff, Hind Al-Humaidan, Khalid Al-Hussein. Cellular and Molecular Profiling of Primitive HSC Subsets in Umbilical Cord Blood samples: Implications for Cellular Therapy. The 43rd Annual Scientific Meeting of the ISEH-Society for Hematology and Stem Cells, August 21-24, 2014, Montreal, Canada.

References:

Professor Raja Mohammed Adnan Fakhoury

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(Master's thesis supervisor)

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