

Saeedah Musaed Almutairi

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Language skills

English and Arabic (spoken and written)

Education

- 2014 – 2020** **PhD student**, Program in Microbiology and Immunology
University of Ottawa, Ottawa, Ontario, Canada
- 2010 – 2013** **MSc student**, Master of Science, program in Medical Microbiology
University of Manitoba, Winnipeg, Manitoba, Canada
Overall GPA of 3.5/4
- 2003 – 2007** **BSc student**, Program in Botany and microbiology
King Saud University, Riyadh, Saudi Arabia
Overall GPA of 4.29/5 with the second-class honors degree

Publications

1. **Saeedah Musaed Almutairi**. (2024) Metabolic Impairment of Natural Killer Cells in Type 2 Diabetes (T2D) Individuals: A Double-Edged Sword Elevating Susceptibility to Infections and Cancer. *Biosciences Biotechnology Research Asia*.
2. Ayman Mubarak, Mahfoudh Alqoufai, **Saeedah Almutairi**, Bahauddeen Alrfaei, Abdulaziz Almutairi, Ibrahim Aziz, Taghreed N Almanaa, Mostafa A Abdel-Maksoud, Mohamed A Farrag, Allolo D Aldreiwish, Maaweya E Awadalla, Bandar Alosaimi, Wael Alturaiki. (2024) MERS-CoV Infection and Its Impact on the Expression of TSLP Cytokine and IgG Antibodies: An In Vivo and In Vitro Study. *Infection and Drug Resistance*.
3. Mohamed A Selim, Reda A. Suf, Ebrahim Saied, Mostafa A. Abdel-Maksoud, **Saeedah Musaed Almutairi**, Mohammed Aufy, Adel A. Mousa, Mohamed T. M. Mansour and Mohamed M. S. Farag. (2024) Peripheral NK cell phenotypic alteration and dysfunctional state post hepatitis B subviral particles stimulation in CHB patients: evading immune surveillance. *Front Immunol*.
4. Abrar Ul Haq Khan, Alaa Kassim Ali, Bryan Marr, Donghyeon Jo, Claire Fong-McMaster, **Saeedah Musaed Almutairi**, Lisheng Wang, Subash Sad, Mary-Ellen Harper and Seung-Hwan Lee. (2023) TNF α /TNFR2 axis mediates natural killer cell proliferation by enhancing the glycolytic plasticity. *Cellular Molecular Immunology*.
5. Israa M. Shamkh, Mahmoud Elkazzaz, Enas. S. Radwan, Jawayria Najeeb, Md. Tabish Rehman, Mohamed F. AlAjmi, Moayad Shahwan, Muhammad Sufyan, Nouf Khalifa Alaqeel, Ibrahim A. Ibrahim, Basit Jabbar, Mohammad Shahbaz Khan, Tomasz M. Karpiński, Abdullah Haikal, Reem M. Aljowaie, **Saeedah Musaed Almutairi** and Amr Ahmed. (2023) AI-driven Discovery of Celecoxib and

Dexamethasone for Exploring their Mode of Action as Human Interleukin (IL-6) Inhibitors to Treat COVID-19-induced Cytokine Storm in Humans. *Current Pharmaceutical Design*

6. Wenhao Xu, Haoming Li, Yasir Hameed, Mostafa A. Abdel-Maksoud, **Saeedah Musaed Almutairi**, Ayman Mubarak, Mohammed Aufy, Wael Alturaiki, Abdulaziz J. Alshalani, Ayman M. Mahmoud, Chen Li. (2023) Elucidating the clinical and immunological value of m6A regulator mediated methylation modification patterns in adrenocortical carcinoma. *Oncology research*.
7. Zhang, L. ; Sahar, A. M. ; Li, C. ; Chaudhary, A. ; Yousaf, I. ; **Saeedah, M. A.** ; Mubarak, A. ; Haris, M. ; Nawaz, M. ; Reem, M. A. ; Ramadan, F. A. ; Mostafa, A. A. M. ; Feng, W. ; Hameed, Y.(2022) A detailed multi-omics analysis of GNB2 gene in human cancers. *Brazilian journal of biology*.
8. Alturaiki, Wael ; Alhamad, Abdulaziz ; Alturaiqy, Muath ; Mir, Shabir Ahmad ; Iqbal, Danish ; Bin Dukhyil, Abdul Aziz ; Alaidarous, Mohammed ; Alshehri, Bader ; Alsagaby, Suliman A ; Almalki, Sami G. ; Alghofaili, Fayez ; Choudhary, Ranjay K. ; **Almutairi, Saeedah** ; Banawas, Saeed ; Alosaimi, Bandar ; Mubarak, Ayman. (2022) Assessment of IL-1 β , IL-6, TNF- α , IL-8, and CCL 5 levels in newly diagnosed Saudi patients with rheumatoid arthritis. *International journal of rheumatic diseases*.1013-1019
9. Gurung, Arun Bahadur ; Ali, Mohammad Ajmal ; Lee, Joongku ; Aljowaie, Reem M. ; **Almutairi, Saeedah M.** (2022) Exploring the phytochemicals of Platycodon grandiflorus for TMPRSS2 inhibition in the search for SARS-CoV-2 entry inhibitors. *Journal of King Saud University*.
10. Mubarak A, **Almutairi S**, Al-Dhabbah AD, Aldabas SY, Bhat R, Alqoufai MM, Abdel-Maksoud MA, Almanaa TN, Farrag MA, Alturaiki W. (2022) Durability of SARS-CoV-2 Specific IgG Antibody Responses Following Two Doses of Match and Mixed COVID-19 Vaccines Regimens in Saudi Population. *Infection and drug resistance*.
11. Darwish, Noura M ; Elshaer, Mohamed M A ; Almutairi, **Saeedah Musaed** ; Chen, Tse-Wei ; Mohamed, Mohamed Othman ; Ghaly, Wael B A ; Rasheed, Rabab AhmedOmega-3.(2022) Polyunsaturated Fatty Acids Provoke Apoptosis in Hepatocellular Carcinoma through Knocking Down the STAT3 Activated Signaling Pathway: In Vivo and In Vitro Study. *Molecules*.
12. Rabab Ahmed Rasheed, Mohamed S.Elshikh, Mohamed Othman Mohamed, Mohamed Faisal Darweesh, Dina S.Hussein, **Saeedah Musaed Almutairi**, Azza Saleh Embaby. (2022) Quercetin's potential to protect adult male albino rats from the health hazards of a high-fat diet on pancreatic and renal tissues. *Journal of King Saud university- sciences*.1 101946.
13. Hayder M. Al-kuraishy, Ali I. Al-Gareeb, Marwa S. Al-Niemi, Reem M. Aljowaie, **Saeedah Musaed Almutairi**, Athanasios Alexiou and Gaber El-Saber Batiha. (2022) The Prospective Effect of Allopurinol on the Oxidative Stress Index and Endothelial Dysfunction in Covid-19. *Inflammation*.
14. Abrar Ul Haq Khan*, **Saeedah Musaed Almutairi***, Alaa Kassim Ali, Rosalba Salcedo, Andrew Stewart and Seung-Hwan Lee. (2021) Expression of Nutrient Transporters on NK Cells during Murine Cytomegalovirus Infection is MyD88-Dependent. *Front Immunol*. **10**:3389. *Equal contribution.
15. Marianna Nacheff, Alaa Kassim Ali, **Saeedah Musaed Almutairi** and Seung-Hwan Lee. (2021) Targeting SLC1A5 and SLC3A2/SLC7A5 to strengthen anti-tumor immunity in the tumor microenvironment (review). *Front Immunol*. **10**:3389.

16. Alaa Kassim Ali, Amandeep Kaur Komal, **Saeedah Musaed Almutairi**, and Seung-Hwan Lee. (2019) Natural killer cell-derived IL-10 regulates T cell response to prevent liver damage during sustained murine cytomegalovirus infection. *Front Immunol.* **10**: 2688.
17. **Saeedah Musaed Almutairi***, Alaa Kassim Ali*, William He, Doo-Seok Yang, Peyman Ghorbani, Lisheng Wang, Morgan D Fullerton and Seung-Hwan Lee. (2019) Interleukin-18 up-regulates amino acid transporters and facilitates amino acid-induced mTORC1 activation in natural killer cells. *J Biol Chem.* **294**: 4644-4655. *Equal contribution (Article was selected to appear in a special virtual issue on “Immunometabolism” at *JBC* as part of the exciting advances in immunometabolism in 2019)

Oral presentations

1. **Saeedah Musaed Almutairi**, Alaa Kassim Ali, William He, Doo-Seok Yang, Peyman Ghorbani, Lisheng Wang, Morgan D. Fullerton, and Seung-Hwan Lee. IL-18 upregulates amino acid transporters and facilitates amino acid-induced mTORC1 activation in natural killer cells. At the CIACCO, May 2019.
2. **Saeedah Musaed Almutairi**, Alaa Kassim Ali, William He, Doo-Seok Yang and Seung-Hwan Lee. IL-18 upregulates nutrient transporters and facilitates amino acid-induced mTORC1 activation in natural killer cells. At 31th Annual spring Meeting of the Canadian Society for Immunology, June 2018.
3. **Saeedah Musaed Almutairi**, Alaa Kassim Ali, William He, Doo-Seok Yang and Seung-Hwan Lee. IL-18 upregulates nutrient transporters and facilitates amino acid-induced mTORC1 activation in natural killer cells. At The CIACCO, May 2018.
4. **Saeedah Musaed Almutairi**, Alaa Kassim Ali, and Seung-Hwan Lee. IL-18 increases nutrient transporter on natural killer that is essential for proliferation during infection. At the BMI Seminar Day, February 2018. **Won 3rd place**

Poster presentations

1. **Saeedah Musaed Almutairi**, Alaa Kassim Ali, William He, Doo-Seok Yang, Peyman Ghorbani, Lisheng Wang, Morgan D. Fullerton, and Seung-Hwan Lee. IL-18 upregulates amino acid transporters and facilitates amino acid-induced mTORC1 activation in natural killer cells. At 32th Annual spring Meeting of the Canadian Society for Immunology, April 2019.
2. **Saeedah Musaed Almutairi**, Alaa Kassim Ali, William He, Doo-Seok Yang and Seung-Hwan Lee. IL-18 upregulates nutrient transporters and facilitates amino acid-induced mTORC1 activation in natural killer cells. At 31st Annual spring Meeting of the Canadian Society for Immunology, June 2018.
3. **Saeedah Musaed Almutairi**, Alaa Kassim Ali, William He, Doo-Seok Yang and Seung-Hwan Lee. IL-18 upregulates nutrient transporters and facilitates amino acid-induced mTORC1 activation in natural killer cells. At the BMI symposium day, May 2018.
4. **Saeedah Musaed Almutairi**, Alaa Kassim Ali, and Seung-Hwan Lee. IL-18: A Key Cytokine Linking Metabolism to Immunity in Natural Killer Cells. At the BMI Seminar Day, May 2017. **Won 2nd place**

Experience:

June 2022– present

Consultant with Saudi food and drugs Authority (SFDA) (part-time job)
Supervising multiple projects

September 2022– April 2022

Medical consultant with Elm company (part-time job)
Lab management, safety management and quality management

September 2021– September 2022

Director of the central laboratory at the college of sciences (Girls campus)

March 2021– present

An editor of Cient Periodique Medicine journal (CPQ)

September 2020– present

Member of different committees at king Saud university:

- Evaluation & Accreditation Committee
- Laboratories & Safety Committee
- Public Relations & Community Partnerships Committee
- Vital education products

December 2020– Present

Assistant professor at king Saud university

July 2018– December 2020

Lecturer at king Saud university

June 2014– July 2018

Teaching assistant at king Saud university

Funds

Name of fund: Grant for university faculty members

Funding agency: Saudi food and drug authority (SFDA)

Date received: 7/20/2022

Title of the proposed work: Host immune responses to Salmonella enterica subsp. Infection.

Name of fund: Researcher supporting projects (RSP)

Funding agency: King Saud university

Date received: 6/20/2021

Certifications

February 2023 Post-graduate program in lean six sigma

February 2023 PG LSS - Lean Six Sigma Black Belt (LSSBB)

December 2022 PG LSS - Lean Six Sigma Green Belt (LSSGB)

October 2022 PG LSS - Lean Management

September 2022 Health Leadership and Quality

August 2022 Infection control

Teaching experience

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| September 2020- to Current | Immunology course |
| September 2020- to Current | Medical virology course |
| September 2020- to Current | Basic microbiology course |
| September 2020- to Current | Research project (bachelor thesis supervision of 5 students and 3 students won the first, second and third places as the best graduation projects at the research day) |
| September 2021- to Current | Scientific communication course |
| September 2021- to Current | Biomedical instrumentation technique course |
| September 2020- to Current | Training in medical microbiology laboratories (supervise students during rotation in the laboratory) |

Training

August 2014 – November 2019

Flow cytometry training, *Ottawa, Canada*
Animal care training, *Ottawa, Canada*

May 2007 – July 2007

Summer training at National Guards Hospital, *Riyadh, Saudi Arabia*

Office Skills:

- Entry and retrieval of patient's information in the computer database
- Maintaining patient relations through information exchange
- Laboratory Skills:
- Withdrawal of blood and analysis of blood samples

June 2006 – August 2006

Summer training at King Saud Chest Diseases Hospital, *Riyadh, Saudi Arabia*

- Streaked samples (Urine and Ear, Throat, and Vaginal swabs)
- Prepared bacterial media (Blood and Chocolate agar)
- Gram staining
- Performed Antibiotics sensitivity tests and using biochemical tests to identify bacterial strains

Honours and awards

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| 2024 | Received the Excellence in Teaching Award, first place, from the College of Sciences at King Saud University |
| 2018 – 2019 | Received International Doctoral Scholarship from the University of Ottawa |
| 2018/02 | Won third place as a presenter at the BMI seminar Day 2017 at uOttawa |
| 2017/05 | Won second place as a poster presenter at the BMI seminar Day 2017 at uOttawa |
| 2016/05 | Won third place as a poster presenter on Cytokines in Inflammation, Ageing, Cancer and Obesity (CIACCO-2016) |
| 2008 – 2013 | King Abdullah Scholarship Program |