

CURRICULUM VITAE

Hana Fakhoury Hajeer

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Educational Attainment

1998 Ph.D. Biochemistry and Molecular Biology, University of Manchester, Manchester, U.K.

1992 B.Sc. Biology, American University of Beirut, Beirut, Lebanon

Google Scholar Profile

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Employments and Appointments

Dec 2018- Present, **Head of Department**, Department of Biochemistry and Molecular Medicine, College of Medicine, Alfaisal University, Riyadh, KSA

Sept 2016- Present, **Mentorship Program Director**, College of Medicine, Alfaisal University, Riyadh, KSA

Sept 2015- Present, **Associate Professor of Biochemistry**, Department of Biochemistry and Molecular Medicine, College of Medicine, Alfaisal University, Riyadh, KSA

Sept 2017- Sept 2019, **Year one Director**, College of Medicine, Alfaisal University, Riyadh, KSA

Sept 2012- July 2015, **Associate Professor of Biochemistry**, Department of Basic Sciences, College of Science and Health Professions, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, KSA

Sept 2009–Sept 2012, **Assistant Professor of Biochemistry**, Department of Basic Sciences, College of Medicine, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, KSA

March 2002–June 2009, **Assistant Professor of Biochemistry**, College of Nursing and Allied Medical Sciences, National Guard Health Affairs, King Abdulaziz Medical City, Riyadh, KSA

Sept 2002–July 2003, **Acting Head**, Basic Sciences Department, College of Nursing and Allied Medical Sciences, National Guard Health Affairs, King Abdulaziz Medical City, Riyadh, KSA

2000- 2001, **Senior Postdoctoral Fellow**, Cancer Genetics Unit, School of Medicine, University of Manchester, Manchester, U.K.

1992 – 1999, **Postdoctoral Research Associate**, School of Biological Sciences, University of Manchester, Manchester, U.K.

Current Committees and Administrative Duties

- Chairman of the Department of Biochemistry and Molecular Medicine
- Mentorship Program Director
- Year 1 Director
- Student Mentorship and Development Committee, Chairperson
- Exam Review Committee, Member
- Curriculum Committee, Member
- College of Medicine Council
- Graduate Studies Committee

Teaching Experience

- Biochemistry and Molecular Biology for undergraduate medical students
- Biochemistry and Molecular Biology for postgraduate students
- Biology for pre-med and allied health students
- Medical Terminology for pre-med and allied health students

Professional Society Membership

- Member of the Biochemical Society, UK
- Member of the Association for the Study of Medical Education, UK

Editorial Board Membership

- Molecular and Cellular Biochemistry, Springer
- Frontiers in Reproductive Health, Frontiers

Awards

- Honorary Academic Status, University of Bristol, 2022- present
- Overseas Research Students Awards Scheme (ORS), UK, 1993-1995

Current Research Grant

1. IRG (Accepted): From Genes to Metabolites: Charting the Metabolic Landscape of Familial Hypercholesterolemia for Atherosclerosis Insights/ Rajaa Fakhoury, Ahmad Aljada, Hanaa Hajeer, Mohammad Aldubayee, Anas Abdel Rahman.
2. IRG (Accepted): Changes in Saliva and Blood Parameters in Obese and Laparoscopic Sleeve Gastrectomy Patients. Ahmad Aljada, Hanaa Hajeer, Awad Alshahrani, Rana Alkattan, Hani Tamim, Jasmine Holail, Rimah Saleem.
3. IRG (submitted): Salivary Biomarkers Associated with Academic Assessment Stress Among First Year Medical Students. Muhammad Atif Mazhar, Sadia Qazi, Hanaa Hajeer, Hala Tamim, Rimah Saleem
4. RDIA (Submitted): Role of Type A Lamins in Chemo-Resistance: Inhibition by Sulfated Non-Anticoagulant Heparin (S-NACH): Hanaa Hajeer , Ahmad Aljada, Rajaa Fakhoury, Mahmoud Zahra, May AbdelJabbar, Jasmine Holail.
5. RDIA (Submitted): Exploring mTOR Signalling in Salivary Gland Regeneration: Implications for Atrophy and Aging. Shakir Alsharari, Hanaa Hajeer , Ahmad Aljada, Hatouf Sukkarieh, Yousef Hawsawi, Lina Jamjoom, Fatheia Hamza, Alaa Alnour Alameen, Rimah Saleem.

Ongoing unfunded research projects:

1. Co-PI: Exploring the Association Between Student-Instructor Academic Relationship and the Academic Performance and Professional Development of Medical Students at Alfaisal University (Collecting data)
2. PI: Unveiling Challenges in Pharmacogenetics Adoption in Saudi Arabia (Submitted)
3. PI: Study of the Association of Vascular Endothelial Growth Factor Gene Polymorphisms with Essential Hypertension (Collecting data)
4. Collaboration: Evaluating nudges that aim to reduce the spread of COVID-19 (Submitted manuscript)
5. Collaboration: Assessing Attitudes Towards COVID-19 Vaccination and Clinical Trials Among Saudi University Affiliates: Implications for Public Health Policy (Writing Manuscript)
6. Collaboration: Association Between Vitamin D Forms, Adiponectin, and Irisin in Maternal-Neonatal Pairs (submitted Manuscript)
7. Collaboration: Poor Perceived Oral Health is associated with Adverse Mental Health Outcomes among Syrian Refugees in Canada (submitted Manuscript)
8. Age/BMI Score as a Strong Predictor of 30-Day Mortality Following Total Hip Replacement (submitted Manuscript)

Scientific Publications

1. Arabi TZ, **Fakhoury HMA**, Tamim H, Chun RF, Hewison M, AlAnouti F, Pilz S, Annweiler C, Tzimigiorgis G, Haitoglou C and Karras SN (2024) Associations between total, free and bioavailable 25-hydroxyvitamin D forms with adiponectin and irisin in maternal-neonatal pairs at birth from Greece. *Front. Endocrinol.* 15:1397869. doi: 10.3389/fendo.2024.1397869

2. Zhra, M., Al Saud, A., Alzayer, M., Okdah, L., Tamim, H., **Fakhoury, H. M.**, & Aljada, A. (2024). Cost-effective in-house COVID-19 reverse transcription-polymerase chain reaction testing with yeast-derived Taq polymerase. *Annals of Thoracic Medicine*, 19(2), 165-171.
3. **Fakhoury HMA**, Yousef Z, Tamim H, Daher S, Attasi AA, Al Ajlan A and Hajeer AH (2023). Combined effect of age and body mass index on postoperative mortality and morbidity in laparoscopic cholecystectomy patients. *Front. Surg.* 10:1243915. doi: 10.3389/fsurg.2023.1243915.
4. Mahevish R, Khan A, Mahmood HR, Qazi S, **Fakhoury HMA**, Tamim H. The Impact of Social Media on the Physical and Mental Well-Being of Medical Students During the COVID-19 Pandemic. *J Epidemiol Glob Health.* 2023 Nov 13. doi: 10.1007/s44197-023-00164-7. Epub ahead of print. PMID: 37955808.
5. **Fakhoury HMA**, Arabi TZ, Tamim H, Chun RF, Grant WB, Hewison M, AlAnouti F, Pilz S, Annweiler C, Tzimagiorgis G, Haitoglou C, Karras SN. Associations of free, bioavailable and total 25-hydroxyvitamin D with neonatal birth anthropometry and calcium homeostasis in mother-child pairs in a sunny Mediterranean region. *Br J Nutr.* 2023 Oct 26:1-8. doi: 10.1017/S000711452300243X. Epub ahead of print. PMID: 37880994.
6. Hamza FN, Daher S, **Fakhoury HMA**, Grant WB, Kvietys PR, Al-Kattan K. Immunomodulatory Properties of Vitamin D in the Intestinal and Respiratory Systems. *Nutrients.* 2023 Mar 30;15(7):1696. doi: 10.3390/nu15071696. PMID: 37049536; PMCID: PMC10097244.
7. Grant WB, Al Anouti F, Boucher BJ, **Fakhoury HMA**, Moukayed M, Pilz S, Al-Daghri NM. Evidence That Increasing Serum 25(OH)D Concentrations to 30 ng/mL in the Kingdom of Saudi Arabia and the United Arab Emirates Could Greatly Improve Health Outcomes. *Biomedicines.* 2023; 11(4):994. <https://doi.org/10.3390/biomedicines11040994>
8. **Fakhoury, H.M.A.**; Elahi, M.A.; Al Sarheed, S.; Al Dubayee, M.; Alshahrani, A.; Zhra, M.; Almassri, A.; Aljada, A. Gene Expression Profiling of Peripheral Blood Mononuclear Cells in Type 2 Diabetes: An Exploratory Study. *Medicina* 2022, 58, 1829. <https://doi.org/10.3390/medicina58121829>
9. Al Balwi W, Al Turki M, Memish ZA, **Fakhoury H**, Al Balwi M, Hajeer AH. Age/BMI is a Stronger Predictor of Death in COVID-19 Patients than Age Alone: A Pilot Study. *Journal of Epidemiology and Global Health.* 2022 Nov 10:1-4.
10. AbuObead DA, Alhomsy TK, Zhra M, Alosaimi B, Hamza M, Awadalla M, Abdelhadi OE, Alsharif JA, Okdah L, AlKattan K, Turki SA, **Fakhoury HMA**, Aljada A. Development and Validation of ScriptTaq COVID PCR: An In-House Multiplex rRT-PCR for Low-Cost Detection. *Current Issues in Molecular Biology.* 2022; 44(12):6117-6131. <https://doi.org/10.3390/cimb44120417>.

11. **Fakhoury, H.M.**; El Shamieh, S.; Rifai, A.; Tamim, H.; Fakhoury, R. Vitamin D Related Gene Polymorphisms and Cholesterol Levels in a Mediterranean Population. *Journal of Cardiovascular Development and Disease* 2022, 9, 102.
12. Holail, J., Mobarak, R., Al-Ghamdi, B., Aljada, A. and **Fakhoury, H.** Association of VKORC1 and CYP2C9 single-nucleotide polymorphisms with warfarin dose adjustment in Saudi patients. *Drug Metabolism and Personalized Therapy*. (2022) <https://doi.org/10.1515/dmdi-2022-0108>
13. Karras, S.N.; Dursun, E.; Alaylıoğlu, M.; Gezen-Ak, D.; Annweiler, C.; Al Anouti, F.; **Fakhoury, H.M.A.**; Bais, A.; Kiortsis, D. Investigating the Role of Functional Polymorphism of Maternal and Neonatal Vitamin D Binding Protein in the Context of 25-Hydroxyvitamin D Cutoffs as Determinants of Maternal-Neonatal Vitamin D Status Profiles in a Sunny Mediterranean Region. *Nutrients* (2021), 13, 3082. <https://doi.org/10.3390/nu13093082>
14. **Fakhoury, H.** et al. Lung-Centric Inflammation of COVID-19: Potential Modulation by Vitamin D. *Nutrients* 13, 2216 (2021).
15. Kvietys, P. R., H. **Fakhoury**, S. Kadan, A. Yaqinuddin, E. Al-Mutairy and K. AlKattan. "COVID-19: Lung-Centric Immunothrombosis." *Frontiers in Cellular and Infection Microbiology* 11: 534 (2021).
16. Al Dubayee M, Alshahrani A, Aljada D, Zahra M, Alotaibi A, Ababtain I, Alnaim M, Alahmari A, Aljarallah A, Elahi MA, **Fakhoury HMA**. Gene Expression Profiling of Apoptotic Proteins in Circulating Peripheral Blood Mononuclear Cells in Type II Diabetes Mellitus and Modulation by Metformin. *Diabetes Metab Syndr Obes*. 2021;14:1129-1139
<https://doi.org/10.2147/DMSO.S300048>
17. **Fakhoury, H. M.**, H. A Fatoum, M. A. Aldeiry, H. Alahmad, J. Enabi, S. Kayali, Y. Bawahab, E. M. Masuadi, A. Obeidat and C. J. Lumsden. "Flipping a biochemistry class within a medical curriculum: Impacts on perception, engagement, and attainment." *Biochemistry and Molecular Biology Education* (2021).
18. **Fakhoury, H. M.** et al. Vitamin D and Intestinal Homeostasis: Barrier, Microbiota, and Immune Modulation. *The Journal of Steroid Biochemistry and Molecular Biology*, 105663 (2020).
19. Karras, S.N., Koufakis, T., Antonopoulou, V., Goulis, D.G., Alaylıoğlu, M., Dursun, E., Gezen-Ak, D., Annweiler, C., Pilz, S., **Fakhoury, H.** and Al Anouti, F. Vitamin D Receptor FokI polymorphism is a determinant of both maternal and neonatal Vitamin D concentrations at birth. *The Journal of Steroid Biochemistry and Molecular Biology*, p.105568 (2019).
20. Grant, W. B., **Fakhoury, H.**, Karras, S. N., Al Anouti, F. & Bhattoa, H. P. Variations in 25-Hydroxyvitamin D in Countries from the Middle East and Europe: The Roles of UVB Exposure and Diet. *Nutrients* 11, 2065 (2019).

21. Muscogiuri G, Barrea L, Altieri B, Di Somma C, Bhattoa HP, Laudisio D, Duval GT, Pugliese G, Annweiler C, Orio F, **Fakhouri H**. Calcium and Vitamin D Supplementation. Myths and Realities with Regard to Cardiovascular Risk. *Current vascular pharmacology*. 2019.
22. Jawdat, Dunia & Al-Zahrani, Mohsen & Al-Askar, Ahmed & **Fakhoury, Hana** & Aytül Uyar, F & Hajeer, Ali. (2019). HLA-A, B, C, DRB1 and DQB1 allele and haplotype frequencies in volunteer bone marrow donors from Eastern Region of Saudi Arabia. *HLA*. 10.1111/tan.13533.
23. El Shamieh S, Saleh F, Masri N, **Fakhoury HM**, Fakhoury R. The association between ACE I/D polymorphism and the risk of Alzheimer's disease in Lebanon. *Meta Gene*. 2018 Oct 1.
24. Karras SN, Koufakis T, **Fakhoury H** and Kotsa K. Deconvoluting the Biological Roles of Vitamin D-Binding Protein During Pregnancy: A Both Clinical and Theoretical Challenge. *Frontiers in Endocrinology*. 2018; 9:259. doi:10.3389/fendo.2018.0025
25. Alghalyini B, El Shamieh S, Salami A, Siest SV, **Fakhoury HM**, Fakhoury R. Effect of SLCO1B1 gene polymorphisms and vitamin D on statin-induced myopathy. *Drug metabolism and personalized therapy*. 2018 Feb 8.
26. Al Jumah M, Kojan S, Al Shehri AM, Al Balwi M, Al Abdulkarim I, Masuadi EM, Alhaidan Y, Alabdulrahman A, **Fakhoury HM**, Hajeer AH. HLA class II polymorphism in Saudi patients with multiple sclerosis. *HLA*. 2018 Jan 1;91(1):17-22.
27. Al Salmi I, Metry AM, Al Ismaili F, Hola A, Shaheen F, **Fakhoury H**, Hannawi S. Epidemiology of human leukocyte antigens among omani population. *Saudi Journal of Kidney Diseases and Transplantation*. 2017 Sep 1;28(5):1021.
28. Alarifi M, Al-Amro F, Alalwan A, Al-Turki A, **Fakhoury H**, Atallah N, Al Muallimi M, Al-Balwi M, AlZahrani M, Alaskar A, Hajeer A. The prevalence of Ccr5-δ32 mutation in a cohort of Saudi stem cell donors. *HLA*. 2017 Nov 1.
29. **Fakhoury HA**, Alzahrani M, Alaskar AS, Hajeer AH. Identification of the Hla-dqb1* 06: 123 allele in an unrelated stem cell donor from the Saudi Registry. *HLA*. 2017 Oct 1.
30. Wagner CL, Hollis BW, Kotsa K, **Fakhoury H**, Karras SN. Vitamin D administration during pregnancy as prevention for pregnancy, neonatal and postnatal complications. *Reviews in Endocrine and Metabolic Disorders*. 2017 Sep 1;18(3):307-22.
31. Fawwaz S, Balbaa M, **Fakhoury H**, Borjac J & Fakhoury R. Association between angiotensin-converting enzyme insertion/deletion gene polymorphism and end-stage renal disease in lebanese patients with diabetic nephropathy. *Saudi Journal of Kidney Diseases and Transplantation* 28, 325 (2017).

32. Alrogy A, Dirar A, Alrogy W, **Fakhoury H**, Hajeer A. Association of human leukocyte antigen DRB1 with anti-cyclic citrullinated peptide autoantibodies in Saudi patients with rheumatoid arthritis. *Ann Saudi Med.* 2017 Jan-Feb;37(1):488-491. doi: 10.5144/0256-4947.2017.488.
33. Karras SN, **Fakhoury H**, Muscogiuri G, Grant WB, van den Ouweland JM, Colao AM, Kotsa K. Maternal vitamin D levels during pregnancy and neonatal health: evidence to date and clinical implications. *Ther Adv Musculoskelet Dis.* 2016 Aug;8(4):124-35. doi: 10.1177/1759720X16656810.
34. Abulkhair O, Saadeddin A, Makram O, Gasmelseed A, Pasha T, Shehata H & **Fakhoury HM** (2016) Vitamin D levels and breast cancer characteristics: Findings in patients from Saudi Arabia. *The Journal of steroid biochemistry and molecular biology*, 164, 106-109.
35. **Fakhoury HA**, Alzahrani M, Alaskar AS, Hajeer AH. Description of a novel HLA-DQB1 allele, HLA-DQB1*06:126, in the Saudi stem cell donor registry. *HLA.* 2016 Jan;87(1):58-9. doi: 10.1111/tan.12703. Epub 2015 Nov 24.
36. Al-Mohrej OA, Al-Shirian SD, Altraif SI, Tamim HM & **Fakhoury HM**. What encourages Saudis to quit smoking? *Journal of Health Specialties* 4, 146 (2016).
37. **Fakhoury HA**, Jawdat D, Alaskar A S, Al Jumah M, Cereb N, Hajeer A H. Three new HLA-C alleles (HLA-C*14:02:13, HLA-C*15:72 and HLA-C*15:74) in Saudi bone marrow donors. *International Journal of Immunogenetics* 08/2015; 42(5).
38. **Fakhoury HA**, Alaskar A S, Hajeer A H. A novel HLA-DQ allele, HLA-DQB1*05:48, found in the Saudi Stem Cells Donor Registry. *Tissue Antigens* 07/2015; 86(3). DOI:10.1111/tan.12628.
39. Al-Mohrej OA, Al-Shirian SD, Al-Otaibi SK, Tamim HM, Masuadi EM, **Fakhoury H**. Is the Saudi public aware of Middle East respiratory syndrome? *Journal of infection and public health.* 2015.
40. Abumaree MH, Al Askar AS, Kalionis B, Abomaray FM, Jawdat D, Hajeer AH, **Fakhoury H**, Al Jumah MA: Stem cell research and regenerative medicine at king abdullah international medical research center. *Stem cells and development* 2014, 23 Suppl 1:12-16.
41. Dafterdar R, Al-Fayoumi M, Saadeddin S, Khan R, Alothaim A, Hasanato R, Al-Shangiti A, **Fakhoury H**, Tamimi W. Vitamin D immunoassay systems: a comparison. *British journal of Biomedical Science.* 2014;71(3):127-30. Epub 2014/10/01.
42. **Fakhoury H**, Cereb N, Jawdat D, Al Jumah M, Alaskar A, Hajeer A. Two novel alleles HLA-DRB1* 11: 150 and HLA-DRB1* 14: 145 identified in Saudi individuals. *International Journal of Immunogenetics.* 2014;41(4):340-1.
43. Kanan RM, Al Saleh YM, **Fakhoury HM**, Adham M, Aljaser S, Tamimi W. Year-round vitamin D deficiency among Saudi female out-patients. *Public health nutrition* 2013; 16(03): 544-8.

44. **Fakhoury H**, Tamim H, Ferwana M, Siddiqui IA, Adham, M, Tamimi W. Age and BMI Adjusted Comparison of Reproductive Hormones in PCOS. *Journal of Family and Medicine and Primary care* 2012 Dec; 1(2): 132-136.
45. **Fakhoury H**, Nouredine S, Chmaisse HN, Tamim H, Makki RF. MMP1-1607(1G>2G) polymorphism and the risk of lung cancer in Lebanon. *Ann Thorac Med* 2012 July;7(3):130-2.
46. **Fakhoury HMA**, Nouredine S, Tamim H, Chmaisse H, Makki R. Association of MMP3 -1171(5A>6A) Polymorphism with Lung Cancer in Lebanon. *Genet Test Mol Biomarkers*. 2012 Aug;16(8):988-90.
47. Nahas R, **Fakhoury HM**, Chmaisse HN, Makki RF. Study of the association between -403G/A and -28C/G RANTES gene polymorphisms and asthma in Lebanon. *Ann Thorac Med*. 2012 Jan;7(1):16-20.
48. El Wafai RJ, Chmaisse HN, Makki RF, **Fakhoury H**. Association of HLA class II alleles and CTLA-4 polymorphism with type 1 diabetes. *Saudi J Kidney Dis Transpl*. 2011 Mar;22(2):273-81.
49. Chmaisse HN, Jammal M, **Fakhoury H**, Fakhoury R. A study on the association between angiotensin-I converting enzyme I/D dimorphism and type-2 diabetes mellitus. *Saudi J Kidney Dis Transpl*. 2009 Nov;20(6):1038-46.
50. Chmaisse HN, **Fakhoury HA**, Salti NN, Makki RF. The ICAM-1 469 T/C gene polymorphism but not 241 G/A is associated with Behcets disease in the Lebanese population. *Saudi Med J*. 2006 May;27(5):604-7.
51. Nakkash-Chmaisse H, Makki RF, Abdelhamid E, **Fakhoury H**, Salti NN, Salti I. CTLA-4 gene polymorphism and its association with Graves' disease in the Lebanese population. *Eur J Immunogenet*. 2004 Jun;31(3):141-3.
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54. Shahbazi M, Pravica V, Nasreen N, **Fakhoury H**, Fryer AA, Strange RC, et al. Association between functional polymorphism in EGF gene and malignant melanoma. *Lancet*. 2002 Feb 2;359(9304):397-401.
55. Hajeer AH, **Fakhoury H**, Ollier WER. Diagnostic molecular techniques in clinical medicine. *Middle East Laboratory* 2002 5(3), 6-13.

56. **Fakhoury H**, Hillarby MC, Weiss JB. Increased gelatinase activity in systemic sclerosis dermal fibroblast cultures with unaltered gelatinase A mRNA expression. *J Dermatol Sci*. 2002 May;29(1):62-9.
57. Shuttleworth A, Ball S, Baldock C, **Fakhoury H**, Kielty CM. Functional role of A-domains in type VI collagen. *Biochem Soc Trans*. 1999 Dec;27(6):821-3.
58. Warhurst G, Higgs NB, **Fakhoury H**, Warhurst AC, Garde J, Coy DH. Somatostatin receptor subtype 2 mediates somatostatin inhibition of ion secretion in rat distal colon. *Gastroenterology*. 1996 Aug;111(2):325-33.
59. **Fakhoury H.M.A.** and Hajeer A.H. Guide to Literature Search for College of Medicine Students. In Al Alwan A., Magzoub M., and Elzubeir M. International Handbook of Medical Education: A Guide for Students (2012). **Book Chapter**. Sage Publications Ltd (April 4, 2012), London.