

CURRICULUM VITAE



PERSONAL DATA

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Address School of Biomedicine, Faculty of Health Sciences, Sultan Zainal Abidin University (UniSZA), Gong Badak Campus, Kuala Nerus, 21300 Terengganu, Malaysia.

ACADEMIC QUALIFICATIONS

- Doctor of Philosophy (Ph.D) in Molecular and Cytogenetic of Myeloid Leukemia, Universiti Sains Malaysia (2015).
- Master of Science (MSc) in Transfusion Science, Universiti Sains Malaysia (2009).
- Bachelor of Medical Laboratories (BSc), Sana'a University, Yemen (1998).

FIELD OF SPECIALISATION

- Molecular Hematology and Cell Biology.

RESEARCH INTEREST

- Leukemia and Cancer Research.
- Methylation and Sequencing Analysis.
- Natural Products as Anticancer Agents.
- Thalassemia and other blood diseases.
- Gene expression and Protein Analysis.
- Signaling Pathway and Cytogenetic of Leukemia.

CAREER HISTORY

Current Position

Senior Lecturer at Faculty of Health Sciences, Universiti Zainal Abidin (UniSZA), Malaysia (2016- till date).

- Teaching theoretical and practical undergraduate courses in Hematology.
- Teaching theoretical and practical undergraduate courses in Transfusion Science & Blood Banking.

- Timely assess the students' progress and provide the students with necessary counseling.
- Contribute in the curriculum development for Biomedicine and Medical Laboratory Technology (MLT) programs.
- Coordinator for Hematology and Transfusion Science & Blood Banking for MLT and Biomedicine students.

Lecturer

High Medical Institute, Ibb branch, Yemen (2002-2007)

- Instructed theoretical and practical undergraduate courses in Medical Microbiology, Hematology, and Blood Transfusion.
- Served as a member of the Examination Committee.
- Supervised research projects conducted by students.
- Provided counseling and technical expertise in planning and conducting research projects.

Lab Technician

Al-Thawrah General Hospital, Ibb branch, Yemen (1998-2002)

- Carried out hematological and blood transfusion examinations.
- Conducted biochemical, microbiological, and parasitological analysis.

Consultant in Medical Laboratory (part time)

Almajd Specialized Hospital, Ibb, Yemen (2004-2007)

- Consulting and managing the medical laboratories.
- Trained and built the capacity of the lab. staff to evaluate and interpret clinical analysis.

CURRENT RESEARCHS AND PAST RELATED RESEARCHES

- Elucidate the Phosphorylation Effect of SMADs and JAK/STAT Signalling Pathways on Iron Metabolism in HbE/ β -thalassemia patients.
- Deciphering The Effect Mechanism of Thymoquinone on JAK/STAT Signaling Negative Regulation in Myeloid Leukemia Cells.
- Molecular characterization of target genes and gene mutations involved in iron metabolism in Hemoglobin E/beta thalassemia and beta thalassemia minor patients in Kuala Terengganu, Malaysia.
- Elucidate the Therapeutic impact of Thymoquinone on c-Myc oncogene in acute myeloid leukemia cell line.
- Comprehensive Bioinformatics Analysis of Transcriptome Profiling in Regulating Population Genetic Structure of Beta-thalassemia in Malaysia

- Effect of Weight Loss on Iron Status Among Overweight and Obese Young Women with Iron Deficiency Anemia.
- Antibacterial and Antibiofilm Activities of Malaysian Trigona Honey Against Pseudomonas Aeruginosa and Streptococcus Pyogenes

GRANTS AND SPONSORED RESEARCHES

Project Leader:

- Elucidate the Effect Mechanism of SMADs and JAK/STAT Signalling Pathways on Iron Metabolism in HbE/ β - thalassemia patients, . UniSZA/2022/DPU2.0/26: Grant value: **RM 25000** 1/12/2022-30/11/2024.
- Deciphering the effect mechanism of thymoquinone on JAK/STAT signaling negative regulation in myeloid leukemia cell lines, FRGS/1/2019/SKK08/UNISZA/02/3: Grant value: **RM 209800**: 1/9/2019 – 31/5/2023.
- Evaluation of iron metabolism in α and β -thalassemia with gene mutations in East Coast of Malaysia. UniSZA/2017/DPU/45: Grant value: **RM 20000**: 8/8/2017-31/7/2019 (completed)

Co-investigator:

- Elucidating the role of miR-100 and its potential to be a therapeutic target in acute promyelocytic leukaemia, FRGS/1/2017/SKK08/UNISZA/03/1: Grant value: **RM 158,450**: 15/8 2017- 14/8/2019.
- Elucidating The Iron Status, Hpcidin Level and Weight Loss Effect Among Overweight and Obese Young Malay Women with Iron Deficiency Anaemia. UniSZA/2020/LABMAT/05: Grant value: **RM24,500**: 21/12/2020 -20/6/2023
- Vaccination of Nile Tilapia (oreochromis Niloticus) Using Feed-Based Chitosan Nanoparticles Against Streptococcus Agalactiae Based on Molecular and Histopathological Analysis, UMT University Grant, UMT/CRIM/2-2/20 (63): Grant value: **RM20,000**: 01/12/2020 – 28/2/2024.

POSTGRADUATE STUDENTS

Main supervisor

1. Almajali Belal Bassam Shabeeb, PhD “Elucidate The Therapeutic Impact of Thymoquinone on c-MYC Oncogene in Acute Myeloid Leukaemic Cell Line” (**Graduated 2022**).
2. Al Rawashde Futoon Abedrabbu Falah, PhD “Deciphering The Effect Mechanism of Thymoquinone on JAK/STAT Signaling Negative Regulation in Myeloid Leukemia Cell Lines” (**Graduated 2022**).
3. Saad Hanan K M, PhD “Molecular Characterisation of HBB gene mutations in Haemoglobin E/beta- Thalassaemia patients in Kuala Terengganu, and the effects of the disease on genes expression related to in Iron Metabolism” (**Graduated 2023**).

Co-supervisor

1. Nur Aisyah Aziz, PhD “Comprehensive Bioinformatics Analysis of Transcriptome Profiling In Regulating Population Genetic Structure of Betathalassemia in Malaysia” (**Ongoing**).
2. Alshwaiyat Naseem Mohammad Hussein, PhD “Effect of Weight Loss on Iron Status Among Overweight and Obese Young Jordanian Women with Iron Deficiency Anemia” (**Ongoing**).
3. Mohammad Abdulraheem M. Alkafaween Abdulraheem, PhD “The Effect of Trigona Honey on Bacterial Growth, Biofilm and Gene Expression of Pseudomonas Aeruginosa and Streptococcus Pyogenes” (**Graduated 2021**)

UNDERGRADUATE STUDENTS

Main supervisor

1. Muhammad Kamil Bin Mohd Nasir, **Graduated 2023**. The Effect of Thymoquinone on JAK/STAT Signalling Pathways in Animal Model with Chronic Myeloid Leukaemia
2. Nur Anis Ashiela Binti Mohd Amiludin, **Graduated 2023**. The Effect of Thymoquinone on MAPK Signalling Pathways In K562 Leukaemia Cells.
3. Afiqah Nurin Fakhira Binti Hanapi, **Graduated 2022**. Fibroblast Growth Factor 23 (FGF23) Regulation on Hcpidin Expression and Iron Overload in Haemoglobin E/Beta-thalassemia (HbE/ β -thalassemia) patients.
4. Fatnun Zahiah Binti Zorimi, **Graduated 2022**. Thymoquinone effect on CXC chemokine receptor 2 (CXCR2) expression in HL60 cell line.
5. Nur Syazrin Binti Ahmad Safuan New, **Graduated 2022**. Thymoquinone effect on Chemokine (C-C motif) Ligand2 (CCL2) expression in HL60 leukemia cells.
6. Kaushalya A/P Krishna, **Graduated 2022**. Diagnostic Laboratory Methods for Beta-Thalassemia in PPUKM, Cheras.
7. Nabilah Izzati Aminy Binti Salahuddin Aminy, **Graduated 2021**. Thymoquinone Enhances The Expression of SOCS3 in MV4-11 Leukemic Cells.
8. Kirushmita A/P Anbualakan, **Graduated 2021**. The Effect of Thymoquinone on SHP-1 Gene Expression in K562 Leukemic Cells.
9. Nor Nabilah Binti Abd Halim, **Graduated 2021**. Comparison of Stains used for Identification of Helicobacter Pylori in Biopsy Tissue in HUSM.
10. Sim Yie Na, **Graduated 2020**. High-Performance Liquid Chromatography (HPLC) Analysis and Iron Profile of Haemoglobin E (HbE) Beta-Thalassemia Patients.
11. Nur Izzah 'Atirah Binti Wan Hamden, **Graduated 2020**. Laboratory Diagnosis of Acute Lymphoid Leukemia in Hospital Universiti Kebangsaan, Malaysia.

12. Rajwa Binti Shamsol Bahari, **Graduated 2019**. Screening of Haemoglobin H Disease in Hospital Universiti Sains Malaysia, Kelantan.
13. Nik Najwa Ayuni Binti Sulong, **Graduated 2019**. Laboratory Investigation of Iron Deficiency Anaemia in Hospital Sultanah Nur Zahirah (HSNZ), Kuala Terengganu.
14. Nur Najihah Binti Mahyun, **Graduated 2018**. The Evaluation of Precursor CD4/CD8 of HIV Patients by using Flow- Cytometry Method in PPUKM, Cheras.

Co-supervisor

1. Nurul Izzaty Najwa Binti Aziz, **Graduated 2022**. Preliminary Study of Glutamine-Fructose-6-Phosphate Amidotransferase 1 (GFAT1) Expression in Blood samples of Colorectal Carcinoma Patients in HSNZ, Terengganu, Malaysia.

ACHIEVEMENTS/AWARDS

1. **Staff Excellence Award 2021 (High Impact publication Award), University publication Award 2021**, Universiti Sultan Zainal Abidin, Awarded on 13 September 2022.
2. **University Excellence Service Award** for 2020, Human Resource Development, Universiti Sultan Zainal Abidin, Awarded; 17/10/2021.
3. Wan Rohani Binti Wan Taib, Imilia Ismail, **Hamid Ali Al-Jamal**, Mohd Khalid Awang Nur Aisyah Aziz, Ezalia Esa, Hishamshah Mohd Ibrahim, **SILVER MEDAL AWARD**, Week of Research and Innovation, Universiti Terengganu Malaysia (UMT), on a project entitled: MYTHALAHAP: A Risk Prediction Model, Online, 10 Mar 2021.
4. **The 2nd prize winner** of the laboratory poster competition In the 17th Malaysian Society of Haematology Scientific Meeting, Held on 10th -12th September 2020, Shangri La Hotel, Kuala Lumpur, Malaysia.
5. **University Excellence Service Award** for 2019, Human Resource Development, Universiti Sultan Zainal Abidin.
6. **University Excellence Service Award** for 2018, Human Resource Development, Universiti Sultan Zainal Abidin.
7. **The 1st prize, Outstanding Poster Award**
 "Restoration of PRG2 expression by 5-azacytidine confers sensitivity in Midostaurin resistant AML cells, 11th Malaysian National Haematology Scientific Meeting, 4th to 6th April 2014, Shangri La Hotel, Kuala Lumpur, Malaysia.

INTERNAL AND EXTERNAL COMMITTEE MEMBERSHIP

- Editorial board member in Experimental and Therapeutic Medicine (SPANDIDOS), since Feb. 2023 till present.
- Editorial board member in SF Journal of Blood Medicine and Research 2022-present.
- Malaysian Blood Transfusion Society (MBTS), Lifetime Membership (since 11th November 2022).

- Graduate Management Committee Member in Faculty of Health Sciences, Sultan Zainal Abidin University, 01Jan 2022- 31 Dec 2023.
- Human Research Ethics Committee (UHREC) in Sultan Zainal Abidin University, 01Jan 2022- 31 Dec 2023.
- Malaysian Society of Hematology 15 August 2019-14 July 2029.
- Members of Malaysian Laboratory Haematology Society (MMLHS), Lifetime Membership (since April 2019).
- Editorial board member in Journal of Cancer Treatment and Research, Nov 2018-2020.
- Editorial board member of Austin Leukemia Journal, April 2017-present.
- Editorial board, Austin Hematology Journal, 2015-present.
- International Society for Laboratory Hematology, 2015-May 2019.

SPECIAL INVITATIONS/APPOINTMENTS

1. Reviewer for Journals:

- 1) *BMC Medical Genomics*_1
 - 2) *Hematology*_3
 - 3) *Oncology Letters*_13.
 - 4) *Bioengineered*_1.
 - 5) *Oncology Reports*_5.
 - 6) *Molecular Medicine Reports*_2.
 - 7) *Molecular and Clinical Oncology*_3.
 - 8) *International Journal of Oncology*_1.
 - 9) *Experimental and Therapeutic Medicine*_3.
 - 10) *International Journal of Oncology*_1
 - 11) *Integrative Cancer Therapies Journal*_1.
 - 12) *International Journal of Molecular Medicine*_1.
2. Contribute to Evaluation of University Grant Application (DPU grant).
 3. Served as a member of the Examination Committee for postgraduate students.
 4. Contribute to the evaluation of postgraduate students' proposal defense.
 5. Contribute to evaluating students' proposal presentations for Final Year Research Project.
 6. Served as a Judge for evaluation of oral presentations in Global Health Sciences Conferences 2020 (GHSC 2020). Pandemic Challenges in Health Sustainability, 12 December 2020.

PUBLICATIONS

1. Al-Rawashde, F. A., Al-Sanabra, O. M., Alqaraleh, M., Jaradat, A. Q., Al-Wajeih, A. S., Johan, M. F., Wan Taib, W. R., Ismail, I., & **Al-Jamal, H. A. N.** (2023). Thymoquinone Enhances Apoptosis of K562 Chronic Myeloid Leukemia Cells through Hypomethylation of SHP-1 and Inhibition of JAK/STAT Signaling Pathway. *Pharmaceuticals*, 16(6), 884. <https://doi.org/10.3390/ph16060884>
Corresponding author- Q1, IF 4.6.
2. Alshwaiyat NM, Ahmad A and **Al-Jamal HAN** (2023). Effect of diet-induced weight loss on iron status and its markers among young women with overweight/obesity and iron deficiency anemia: a randomized controlled trial. *Front. Nutr.* 10:1155947. doi: 10.3389/fnut.2023.1155947.

3. Saad HKM, Taib WRW, Ab Ghani AS, Ismail I, Al-Rawashde FA, Almajali B, Alhawamdeh M, Abd Rahman AA, Al-wajeeh AS, **Al-Jamal HAN** (2023). HBB Gene Mutations and Their Pathological Impacts on HbE/ β -Thalassaemia in Kuala Terengganu, Malaysia. *Diagnostics*. 13(7):1247. <https://doi.org/10.3390/diagnostics13071247>. **Corresponding author- Q2, IF 3.992.**
4. Al-Rawashde, F. A., Al-wajeeh, A. S., Vishkaei, M. N., Saad, H. K. M., Johan, M. F., Taib, W. R. W., Ismail, I., & **Al-Jamal, H. A. N.** (2022). Thymoquinone Inhibits JAK/STAT and PI3K/Akt/ mTOR Signaling Pathways in MV4-11 and K562 Myeloid Leukemia Cells. *Pharmaceuticals*, 15(9), 1123. <https://doi.org/10.3390/ph15091123>. **Corresponding author- Q1, IF 5.215.**
5. Almajali, B., Johan, M. F., Al-Wajeeh, A. S., Wan Taib, W. R., Ismail, I., Alhawamdeh, M., Al-Tawarah, N. M., Ibrahim, W. N., Al-Rawashde, F. A., & **Al-Jamal*, H. A. N.** (2022). Gene Expression Profiling and Protein Analysis Reveal Suppression of the C-Myc Oncogene and Inhibition JAK/STAT and PI3K/AKT/mTOR Signaling by Thymoquinone in Acute Myeloid Leukemia Cells. *Pharmaceuticals*, 15(3), 307. <https://doi.org/10.3390/ph15030307>. **Corresponding author- Q1, IF 5.863.**
6. Saad, H. K. M., Abd Rahman, A. A., binti Ab Ghani, A. S., Taib, W. R. W., Ismail, I., Johan, M. F., **Al-Jamal*, H. A. N.** (2022). Activation of STAT and SMAD Signaling Induces Hepcidin Re-Expression as a Therapeutic Target for β -Thalassemia Patients. *Biomedicines*, 10(1), 189. <http://doi:10.3390/biomedicines10010189>. **Corresponding author- Q1, IF 6.081.**
7. Alkafaween, M., Abu-Sini, M., & Al-Jamal, H. (2022). Antibiotic Susceptibility and Differential expression of virulence genes in Staphylococcus aureus. *Applied Environmental Biotechnology*, 7(1), 6-15. doi:<http://dx.doi.org/10.26789/AEB.2022.01.002>. **Corresponding author.**
8. Al-Kafaween, M. A., & **Nagi Al-Jamal, H. A.** (2022). A comparative study of antibacterial and antivirulence activities of four selected honeys to Manuka honey. *Iranian journal of microbiology*, 14(2), 238–251. <https://doi.org/10.18502/ijm.v14i2.9193>. **Corresponding author.**
9. *AlFaris NA, Alshwaiyat NM, AlTamimi JZ, Alagal RI, Al-Jamal HA, and AlKehayez NM* (2022). Physical Activity Levels of a Multi-Ethnic Population of Middle-Aged Men Living in Saudi Arabia and Factors Associated With Physical Inactivity. *Int J Public Health* 66: <https://doi.org/10.3389/ijph.2021.1604328>
10. *AlTamimi JZ, Alagal RI, AlKehayez NM, Alshwaiyat NM, Al-Jamal HA, and AlFaris NA* (2022). Physical Activity Levels of a Multi-Ethnic Population of Young Men Living in Saudi Arabia and Factors Associated With Physical Inactivity. *Front. Public Health* 9:734968. DOI: <https://doi.org/10.3389/fpubh.2021.734968>
11. Al-Kafaween MA, **Al-Jamal* HAN**, Hilmi AB. De Novo Whole Genome Sequencing Data of Pseudomonas aeruginosa ATCC10145, an Opportunistic Pathogen. *Trop J Nat Prod Res.* 2022; 6(2):176-179. **Corresponding author.**
12. Al-Rawashde, F. A., Johan, M. F., Taib, W. R. W., Ismail, I., Johari, S. A. T. T., Almajali, B., ... **Al-Jamal*, H. A. N.** (2021). Thymoquinone Inhibits Growth of

- Acute Myeloid Leukemia Cells through Reversal SHP-1 and SOCS-3 Hypermethylation: In Vitro and In Silico Evaluation. *Pharmaceuticals*, 14(12), 1287. <https://doi.org/10.3390/ph14121287>. **Corresponding author- Q1, IF 5.863.**
13. Al-Rawashde FA, Wan Taib WR, Ismail I, Johan MF, Al-Wajeeh AS, **Al-Jamal* HAN**. Thymoquinone Induces Downregulation of BCR-ABL/JAK/STAT Pathway and Apoptosis in K562 Leukemia Cells. *Asian Pac J Cancer Prev*. 2021 Dec 1;22(12):3959-3965. DOI: [10.31557/APJCP.2021.22.12.3959](https://doi.org/10.31557/APJCP.2021.22.12.3959). PMID: 34967577. **Corresponding author.**
 14. A. Alkafaween, M., Magharbeh, M., Khleifat, K., Saraireh, R., Qaralleh, H., El-Hasan, T., Hujran, T., Jarrah, N., Al-Tarawneh, A., H. Ajbour, S., O. Al-limoun, M., Alqaraleh, M., **Al-Jamal*, H.**, & Amonov, M. (2021). Biodegradation of Phenol by *Bacillus simplex*: Characterization and Kinetics Study. *Applied Environmental Biotechnology*, 6(2), 1-12. doi:<http://dx.doi.org/10.26789/AEB.2021.02.001>. **Corresponding author.**
 15. Saad, H.K., Taib, W.R., Ismail, I., Johan, M.F., Al-Wajeeh, A.S., & **Al-jamal*, H.A.** (2021). Reduced hepcidin expression enhances iron overload in patients with HbE/ β -thalassemia: A comparative cross-sectional study. *Experimental and Therapeutic Medicine*, 22, 1402. <https://doi.org/10.3892/etm.2021.10838>. **Corresponding author- Q3, IF 2.71.**
 16. Alshwaiyat, N.M., Ahmad, A., Wan Hassan, W., & **Al-Jamal*, H.A.** (2021). Association between obesity and iron deficiency (Review). *Experimental and Therapeutic Medicine*, 22, 1268. <https://doi.org/10.3892/etm.2021.10703>. **Corresponding author- Q3, IF 2.71.**
 17. Aziz, NA., Taib, WR.W., Kharolazaman, NK. Ismail, I., **Al-Jamal, HAN**, et al. Evidence of new intragenic *HBB* haplotypes model for the prediction of beta-thalassemia in the Malaysian population. *Sci Rep* 11, 16772 (2021). <https://doi.org/10.1038/s41598-021-96018-y>
 18. Almajali, B., **Al-Jamal*, H.**, Taib, W., Ismail, I., Johan, M. F., Doolaanea, A. A., & Ibrahim, W. N. (2021). Thymoquinone, as a Novel Therapeutic Candidate of Cancers. *Pharmaceuticals (Basel, Switzerland)*, 14(4), 369. <https://doi.org/10.3390/ph14040369>. **Corresponding author, Q1, IF 5.863.**
 19. Zakaria, N. A., Rosle, N. A., Siti Asmaa, M. J., Aziee, S., Haiyuni, M. Y., Samat, N. A., Husin, A., Hassan, R., Ramli, M., Mohamed Yusoff, S., Ibrahim, I. K., **Al-Jamal, H.**, & Johan, M. F. (2021). Conformation sensitive gel electrophoresis for the detection of calreticulin mutations in BCR-ABL1-negative myeloproliferative neoplasms. *International journal of laboratory hematology*, 43(6), 1451–1457. <https://doi.org/10.1111/ijlh.13628>.
 20. Almajali, B., **Al-Jamal*, H.**, Wan Taib, W. R., Ismail, I., Johan, M. F., Doolaanea, A. A., Ibrahim, W. N., & Tajudin, S. A. (2021). Thymoquinone Suppresses Cell Proliferation and Enhances Apoptosis of HL60 Leukemia Cells through Re-Expression of JAK/STAT Negative Regulators. *Asian Pacific journal of cancer prevention: APJCP*, 22(3), 879–885. <https://doi.org/10.31557/APJCP.2021.22.3.879>. **Corresponding author.**

21. Mohammad A. Al-kafaween, Abu Bakar Mohd Hilmi, **Hamid A. Nagi Al-Jamal***, Rania M. Al-Groom, Nour A. Elsahoryi, and Hiba Al-Sayyed, (2021). "Potential Antibacterial Activity of Yemeni Sidr Honey Against *Pseudomonas aeruginosa* and *Streptococcus pyogenes*," *Anti-Infective Agents*; 19(4): [e130621192336](#). . **Corresponding author.**
22. Alkafaween, Mohammad A.; **AL-JAMAL, Hamid A. Nagi**; MOHMD HILMI, Abu Bakar. Evaluation of antimicrobial and antibiofilm activities of stingless bee *Trigona* honey (Malaysia) against *Streptococcus pneumoniae*. *The International Arabic Journal of Antimicrobial Agents*, [S.I.], v. 11, n. 2, May 2021. ISSN 2174-9094.
23. Alkafaween, Mohammad A.; **AL-JAMAL, Hamid A. Nagi**; MOHMD HILMI, Abu Bakar. Antibacterial activity of selected varieties of Malaysian honey against *Escherichia coli*: A comparative study. *The International Arabic Journal of Antimicrobial Agents*, [S.I.], v. 11, n. 1, Mar. 2021. ISSN 2174-9094.
24. Mat Jusoh, **Al-Jamal, H. A.**, Hussein A. R., Yahaya BH, Husin A, Hassan, R., Hussain FA, Shaharum Shamsuddin, Johan, M. F. (2020). Transcriptomic Profiles of MV4-11 and Kasumi 1 Acute Myeloid Leukemia Cell Lines Modulated by Epigenetic Modifiers Trichostatin A and 5-Azacytidine. *International Journal of Hematology-Oncology and Stem Cell Research*, **14(1)**: 72–92.
25. Al-Kafaween M, Mohd Hilmi AB, **Al-Jamal H, A.**, Elsahoryi N, Jaffar N, Khairi Zahri M., (2020). *Pseudomonas Aeruginosa* and *Streptococcus Pyogenes* Exposed to Malaysian *Trigona* Honey In Vitro Demonstrated Downregulation of Virulence Factor. *Iran J Biotechnol*,**18(4)**:e2542.
26. Al-Kafaween MA, Hilmi ABM, Jaffar N, **Al-Jamal HAN**, Zahri MK,et al., (2020). Effects of *Trigona* honey on the Gene Expression Profile of *Pseudomonas aeruginosa* ATCC 10145 and *Streptococcus pyogenes* ATCC 19615
27. Al-Kafaween MA, Hilmi ABM, Jaffar N, **Al-Jamal HAN**, Zahri MK, Jibril.F.I., (2020). Antibacterial and Antibiofilm Activities of Malaysian *Trigona* Honey Against *Pseudomonas Aeruginosa* Atcc 10145 and *Streptococcus Pyogenes* Atcc 19615, **13 (1)**: 69 –76.
28. Al-Kafaween MA, **Al-Jamal* HAN**, Hilmi ABM, Elsahoryi NA, Jaffar N, Zahri MK. Antibacterial properties of selected Malaysian Tualang honey against *Pseudomonas aeruginosa* and *Streptococcus pyogenes*. *Iran J Microbiol.* 2020;12(6):565-576. doi:10.18502/ijm.v12i6.5031. **Corresponding author.**
29. Al-kafaween, M.A., Mohd Hilmi, A.B., Jaffar, N., **Al-Jamal H.A.N.**, Zahri, M.K., (2019). Determination of optimum incubation time for formation of *Pseudomonas aeruginosa* and *Streptococcus pyogenes* biofilms in microtiter plate. *Bull Natl Res Cent* **43**, 100.
30. **Al-Jamal, H. A. N.**, Johan, M. F., Mat Jusoh, S. A., Ismail, I., & Wan Taib, W. R. (2018). Re-Expression of Bone Marrow Proteoglycan-2 by 5-Azacytidine is associated with STAT3 Inactivation and Sensitivity Response to Imatinib in Resistant CML Cells. *Asian Pacific Journal of Cancer Prevention*, **19(6)**: 1585-1590.

31. Aziee, S., Haiyuni, M. Y., **Al-Jamal, H. A. N.**, Shafini, M. Y., Wahab, R. A., Shamsuddin, S., & Johan, M. F. (2018). Apoptotic Induction in CCRF-CEM and HL-60 Human Leukemic Cell Lines by 5-Azacitidine and Trichostatin A. *Journal of Biomedical and Clinical Sciences (JBSCS)*, **3(1)**, 54-61.
32. Ismail, I., Sulong, S., **Al Jamal, H. A**, Johan, M. F., & Hassan, R. (2018). Differential expression profiles of miRNAs and correlation with clinical outcomes in acute myeloid leukemia. *Meta Gene*. **16**: 182-188.
33. Zamani, A., Jusoh, S. A. M., **Al-Jamal, H. A**, Sul'ain, M. D. & Johan, M. F. (2016). Anti-Proliferative Effects of Dendrophthoe pentandra Methanol Extract on BCR/ABL-Positive and Imatinib-Resistant Leukemia Cell Lines. *Asian Pac J Cancer Prev*, **17 (11)**, 4857-4861.
34. **Al-Jamal, H. A**, Asma'a, M. J., Hassan, R. & Johan, M.F. (2015). Enhancing SHP-1 expression with 5-azacytidine may inhibit STAT3 activation and confer sensitivity in lestaurtinib (CEP-701)-resistant FLT3-ITD positive acute myeloid leukemia. *BMC Cancer*, **15**:869
35. Yunus, N. M., Johan, M. F., **Al-Jamal, H. A.**, Husin, A., Hussein, A. R. & Hassan, R. (2015). Characterisation and clinical significance of FLT3- ITD and non-ITD in acute myeloid leukaemia (AML) patients in Kelantan, Northeast of Peninsular Malaysia. *Asian Pac J Cancer Prev*, **16**: 4869-72
36. Asma'a, M. J., **Al-Jamal, H. A.**, Seeni, A. & Johan, M. F. (2015). Growth inhibitory effects of crude pomegranate peel extract on chronic myeloid leukaemia, K562 cells. *Int J App Basic Med Res*, **5**:98-103.
37. **Al-Jamal H**, Jusoh S, Sidek M, Hassan, R. & Johan, M. F. (2015). Restoration of PRG2 Expression by 5-Azacytidine Involves in Sensitivity of PKC-412 (Midostaurin) Resistant FLT3-ITD Positive Acute Myeloid Leukaemia Cells. *J Hematol Thrombo Dis*, **3(186)**, 2.
38. **Al-Jamal, H. A.**, Jusoh, S. A., Yong, A. C., Asan, J. M., Hassan, R. & Johan, M. F. (2014). Silencing of suppressor of cytokine signaling-3 due to methylation results in phosphorylation of STAT3 in imatinib resistant BCR-ABL positive chronic myeloid leukemia cells. *Asian Pac J Cancer Prev*, **15(11)**, 4555-61.
39. Jusoh, S. A., **Al-Jamal, H. A.**, Ang, C. Y., Asan, J. M., Seeni, A. & Johan, M. F. (2014). Apoptosis induction in MV4-11 and K562 human leukemic cells by *Pereskia sacharosa* (Cactaceae) leaf crude extract. *Asian Pac J Cancer Prev*, **15(1)**, 475-81
40. Kamil, M., **Al-Jamal, H. A.** & Yusoff, N. M. (2010). Association of ABO blood groups with diabetes mellitus. *Libyan J Med*, **5**.

BOOKS CHAPTERS

1. Belal Almajali, Abdullah Saleh Al-wajeeh, **Hamid Ali Nagi Al-Jamal***. Thymoquinone in Cancers Therapy. In: Nosheen Akhtar, editor. Updates in Pharmacology. Hyderabad, India: Vide Leaf. 2022.

2. Roheen Akbar.; Faheem M.; **Hamid Ali Nagi Al-Jamal.** (2021). Polymerase Chain Reaction: Types and Applications [CHAPTER 3_ALU PCR]. AMAZON; pp:22-24. ISBN-13: 979-8721812033.
3. Ayesha A.B.; Faheem M.; Muhammad H.; **Hamid Ali Nagi Al-Jamal.**; Fizah I. (2021). Polymerase Chain Reaction: Types and Applications [CHAPTER 5_ASYMMETRIC PCR]. AMAZON; pp:27-31. ISBN-13: 979-8721812033.
4. Ayesha R; Faheem M.; Muhammad H.; Mubbashar M.; **Hamid Ali Nagi Al-Jamal.** (2021). Polymerase Chain Reaction: Types and Applications [CHAPTER 6_COLD-PCR]. AMAZON; pp:32-35. ISBN-13: 979-8721812033.
5. Maheen Z.; Faheem M.; Muhammad H.; Zirwah Tahir.; **Hamid Ali Nagi Al-Jamal.** (2021). Polymerase Chain Reaction: Types and Applications [CHAPTER 7_ COLONY PCR]. AMAZON; pp:36-37. ISBN-13: 979-8721812033.

CONFERENCE PAPERS

1. Transferrin gene expression as a biomarker of ineffective erythropoiesis and iron overload in HBE/ β -thalassemia and β -thalassemia trait patients (accepted for publication)
2. **Al-Jamal HA**, WRW Taib, SA Mat Jusoh, A. Sudin and MF.Johan (2017). Azacytidine enhances sensitivity response to imatinib in BCR/ABL positive CML cell line. Extended abstracts for Global Globin 2020 challenges (GG2020) Conference, Impiana KLCC Hotel, Kuala Lumpur, Malaysia, PP 20-22.
3. Johan, M. F. & **Al-Jamal, H. A.** (2013). Restoration of SHP-1 Expression by 5-Azacytidine Confer Sensitivity in Imatinib-Resistant BCR-ABL Chronic Myeloid Leukaemia. Proceedings of the 10th Malaysia Genetics Congress, Advances in Genetics, Biotechnology and Genomics, Palm Garden Hotel IOI Resort, Putrajaya, Malaysia, pp. 235-39.

CONFERENCES; ABSTRACTS, AND ORAL PRESENTATIONS

1. The 2nd international Conference on Basic and Applied Science (2nd ICBAS 2023). Toward Innovation in Science & Technology Held in Ain Sokhna, Egypt, during May 7th & 8th, 2023. Tolip Resort El-Galala Hills, Ain-Sokhna, Egypt.[Oral Presentation]
2. 10th National Transfusion Medicine Conference in Malaysia 2022 October, 9th to the 11th of October, 2022. Pullman Hotel Kuching, Sarawak, Malaysia.
3. 3rd How to Diagnose and Treat Acute Leukaemias. European School of Haematology. March 10-13, 2022 - E-Conference.
4. The 6th Translational Research Conference: LYMPHOID MALIGNANCIES: European School of Haematology. October 14-17, 2021 - E-Conference.
5. 23rd Annual John Goldman Conference on Chronic Myeloid Leukemia: Biology And Therapy. European School of Haematology. October 7-10, 2021 - E-Conference.

6. How I manage CAR-T Therapies and Bispecific Antibodies for My Patients. E-Conference- European School of Haematology. 6-9 September 2021.
7. 18th Malaysian Society of Haematology Scientific Meeting, Malaysian Society of Haematology Scientific Meeting (MSH), 5-7 August 2021, Virtual.
8. E-Conference: 2nd How to Diagnose and Treat CML / MPN, European School of Haematology. 25 to 28 February 2021. Virtual.
9. Virtual Congress on Controversies in Leukemias, EUROLEUK2020, 29-30 October 2020 online.
10. The Virtual Congress on Hematology: Age before beauty-an age-adjusted approach towards hematological disorders, 22-23 October 2020.
11. 5th Translational Research E-Conference on Multiple Myeloma, European School of Haematology, Live Conference: 8-11 October 2020.
12. 22nd John Goldman International E-Conference on Chronic Myeloid Leukemia: Biology and Therapy. European School of Haematology. 1-4 October 2020.
13. Re-expression of *SHP-1* and *PRG2* by azacytidine enhances sensitivity response to tyrosine kinase inhibitors in myeloid leukemic cell lines. 17th Malaysian Society of Haematology Scientific Meeting, Malaysian Society of Haematology Scientific Meeting (MSH), Shangri-La Hotel Kuala Lumpur, Malaysia (10- 12 September 2020).
14. **Al-Jamal HA**, Rohani W.T and MF.Johan. Azacytidine enhances sensitivity response to imatinib in BCR/ABL positive CML cell line. Global Globin 2020 challenges (GG2020). 17th -18th July 2017, Impiana KLCC Hotel, Kuala Lumpur, Malaysia.
15. Rohani W.T, **Al-Jamal HA**, and MF.Johan. Deciphering the role of β -globin gene (HBB) variants in β -Thalassemia in Malaysia population: a conceptual framework. Global Globin 2020 challenges (GG2020). 17th -18th July 2017, Impiana KLCC Hotel, Kuala Lumpur, Malaysia.
16. MF Johan, **Al-Jamal HA**, SA Mat Jusoh, A Sudin, R Hassan. Enhancing SHP-1 and PRG2 expression by 5-Azacytidine may inhibit STAT3 activation and confer sensitivity in Lestaurtinib (CEP-701) resistant FLT3-ITD positive Acute Myeloid Leukemia. International Congress of Human Genetics in 2016 (ICHG2016). 3rd - 7th April 2016, Kyoto International Conference Center (ICC Kyoto), Japan.
17. MF Johan, **Al-Jamal HA**, SA Mat Jusoh, A Sudin, R Hassan. Enhancing SHP-1 and PRG2 expression by 5-azacytidine may inhibit stat3 activation and confer sensitivity in midostaurin (PKC-412) resistant FLT3-ITD positive AML cell lines. 13th Malaysian National Hematology Scientific Meeting. 14-16 April 2016, Shangri La Hotel, Kuala Lumpur, Malaysia
18. Afiqah Zamani, SA Mat Jusoh b, **Al-Jamal H.A**, Mohd Dasuki Sul'ain, Johan, M.F (2015). Anti-Proliferative Effects of Dendrophthoe pentandra Methanol Extracts on BCR/ABL-Positive and Imatinib-Resistant Leukaemia Cells.

International Conference on Natural Products 2015 (ICNP2015).22-23rd March 2015, DoubleTreeby Hilton, Johor Bahru, Malaysia.

19. M. F. Johan, **Al-Jamal, H. A.**, Z. Alwi, and R. Hassan (2014). Aberrant methylation of SOCS-3 results in phosphorylation of stat3 in imatinib-resistant BCR-ABL positive K562 cells. *Human genome meeting 2014 (HGM 2014)*. 27-30th April 2014, Geneva, Switzerland.
20. **Al-Jamal, H.A.**, R Hassan and MF Johan. Restoration of PRG2 expression by 5-azacytidine confers sensitivity in Midostaurin resistant AML cells. *XIth Malaysian Society of Haematology Scientific Meeting*. 4-6th April 2014, Shangri La Hotel, Kuala Lumpur, Malaysia
21. Johan, M.F and **Al-Jamal, H.A.**, (2013). Restoration of SHP-1 Expression by 5-Azacytidine Confers Sensitivity Imatinib Resistant BCR-ABL Chronic Myeloid Leukaemia. *10th Malaysia Genetics Congress, Advances in Genetics, Biotechnology, and Genomics*. 3rd–5th December 2013, Palm Garden Hotel IOI Resort, Putrajaya, Malaysia.
22. **Al-Jamal, H.A.**, SA Mat Jusoh¹, Mohamad Ros Sidek and Johan, M.F (2013). Repression of STATs and JAKs genes by 5-azacytidine confers sensitivity to PKC-412 in resistant acute myeloid leukemia cells. *International Conference On Medical & Health Sciences (ICMHS)*, 22-24 May 2013, Renaissance Hotel, Kota Bharu, Malaysia.
23. **Al-Jamal, H.A.**, CY Ang¹ and MF Johan¹ (2013). Restoration of SHP-1 expression by demethylating agent 5-Azacytidine in Imatinib resistant BCR-ABL Chronic Myeloid Leukaemia. *International Conference on Medical & Health Sciences (ICMHS)*, 22-24 May 2013, Renaissance Kota Bharu Hotel, Malaysia.
24. Siti Asmaa M Jusoh, **Al-Jamal, H.A.**, Azman Seenii & Johan, M.F (2013). P. sacharosa and P. granatum crude extracts induce Apoptosis and cause DNA damage in human acute myeloid (MV4-11) and human chronic myeloid (K562) leukemia cells. *International Conference On Medical & Health Sciences (ICMHS)*, 22-24 May 2013, Renaissance Kota Bharu Hotel, Malaysia.
25. **Al-Jamal, H.A.** and MF Johan (2013). Down-regulation of SOCS-3 by aberrant methylation confers resistance to tyrosine kinase inhibitor in CML. *Conference of HGM 2013 and 21st International Conference of Genetics*, 13-18 April 2013, Marina Bay Sands, Singapore.
26. Johan, M F. S A Mat Jusoh, D Alias, **Al-Jamal, H.A.**, A Seenii. (2012). In vitro aberrant methylation of suppressors of cytokine signaling in acute myeloid leukemia cells with an FLT3-ITD treated with Malaysian edible plants. *Human Genome Meeting*, 11-14 March 2012, Sydney Convention Centre, Australia.
27. M F Johan., **Al-Jamal, H.A.**, S A Mat Jusoh, D Alias (2012). Development of resistant clones of acute myeloid leukaemia cells with an FLT3-ITD using tyrosine kinase inhibitors. *Human Genome Meeting*, 11-14 March 2012, Sydney Convention Centre, Australia.
28. Johan M.F., **Al-Jamal, H.A.**, Mat Jusoh, S.A. Alias. D. (2011). Methylation of suppressors of cytokine signaling in AML cells with an FLT3-ITD resistant to tyrosine kinase inhibitor. *Federation of Asian and Oceanian Biochemists and*

Molecular Biologists (FAOBMB) Conference, 5-7 October 2011, Level 4, Matrix Building, Biopolis, Singapore.

29. **Al-Jamal, H.A.**, Rosline H. and Johan M.F. (2011). Lestaurtinib and Midostaurin Inhibition of FLT3-IDT in AML Cell line. *The IXth Malaysian National Haematology Scientific Meeting (poster)*, 29 Apr -1st May 2011, Pullman Kuching, Kuching, Malaysia.
30. **Al-Jamal, H.A.**, Rosline H. and Johan M. F. (2011). Lestaurtinib and Midostaurin Inhibition of FLT3-IDT in AML Cell line. *1st International Molecular Medicine Conference (oral)*, 11 – 14 APR, 2011, Renaissance Hotel, Kota Bharu, Kelantan, Malaysia.
31. **Hamid Ali Nagi Al-Jamal** (2010). Association of ABO blood groups with diabetes mellitus. *Yemeni Postgraduate Students Exhibition in Malaysia – 2010 (YPSE 2010)*, 28 Apr 2010, Embassy of The Republic of Yemen, Cultural Attache, Kuala Lumpur, Malaysia.

ACADEMIC SYMPOSIA AND WORKSHOPS

2022	The Malaysian Blood Transfusion Society	International Society Blood Transfusion Academy Day and 10 th National Transfusion Medicine Conference, Pullman Hotel Kuching Sarawak Malaysia, 8-11 October 2022.
2021	USM, Online Webinar	FRIM-USM joint webinar series 2.0 2021 (ANTI MICROBIAL EFFECTS OF MEDICINAL PLANTS), USM, 2 November 2021.
2021	UniSZA, online Webinar	International Webinar on Cancer Cell Biology, Centre for Research in Infectious Diseases and Biotechnology (CeRIDB), Faculty of Medicine, UniSZA, 28 October 2021.
2021	UniSZA, online seminar	'HOW TO BECOME AN EFFECTIVE THESIS EXAMINER', 26 Sep. 2021.
2021	Clarivate Webinar	A Thai Researcher's Journey to Becoming One of the World's Most Influential Scientific Minds in Agricultural Sciences. Digital Platform Zoom, 18 August 2021.
2021	Clarivate Webinar training session	Fresh Look, New Features: What's new on the New Web of Science?, Digital Platform Zoom, 26 Jul 2021.
2021	Virtual meeting (Monash University)	34 th MALAYSIAN SOCIETY OF PHARMACOLOGY & PHYSIOLOGY (MSPP) Scientific Meeting 2021, 15-17 July 2021.
2021	CareDx 2021 HLA Webinar	The role of HLA pseudogenes, non-classical genes and non-coding sequences in unrelated HSCT on 7/29/2021 conducted by CareDx.
2021	CareDx 2021 HLA Webinar	Direct genetic comparisons between unrelated HSCT Donor / Patient Pairs with AlloSeq Tx17 on 6/29/2021 conducted by CareDx.

2021	Clarivate Online training session	On Journal Citation Reports 2021 Update – MOHE, Digital Platform Zoom, 6 Jul 2021.
2021	Online Webinar	CareDx 2021 HLA - Direct genetic comparisons between unrelated HSCT Donor / Patient Pairs with AlloSeq Tx17, Digital Platform Zoom, 6/29/2021.
2019	Bayview Hotel Langkawi, Kedah	Morphology Workshop 2.0: “ From Morphology To Molecular Diagnostics”. IPPT, USM. 26- 27 September 2019.
2019	Univesiti Sains Malaysia (INFORMM)	UNDERSTANDING SPECIFIC STATUS: DNA METHYLATION AND APPLICATION 26 th -27 th August 2019.
2019	Univesiti Sains Malaysia (INFORMM)	Cell culture: 3D Spheroid and Transfection 30-31 Jul 2019.
2019	Universiti Sultan Zainal Abidin	FSK POSTGRADUATE COLLOQUIUM 30 th April 2019.
2017	Universiti Sultan Zainal Abidin	Basic Teaching Course Lessons 1& 2, 8-9 October 2017
2018	Universiti Sultan Zainal Abidin	UniSZA e-Learning Carnival (UniCel) 2018
2017	Universiti Sultan Zainal Abidin	Integrated Cumulative Grade Point Average (ICGPA).
2016	Universiti Sultan Zainal Abidin	Training Manual iSpring workshop.
2015	Univesiti Sains Malaysia	Scientific writing editing and reviewing workshop.
2015	Univesiti Sains Malaysia	Pyrosequencing seminar.
2014	Univesiti Sains Malaysia	Next Generation Researchers Cancer Symposium
2014	Univesiti Sains Malaysia	Advancing Sequencing for A Better World.
2014	Univesiti Sains Malaysia	Publication Workshop : Ideas to Write Good Publishable Papers & Submission Process & Reviewers Insight.
2014	Univesiti Sains Malaysia	Manuscript Writing and Hematology Update Program.
2014	Univesiti Sains Malaysia	Repeated Measure Analysis of Variance.
2014	Univesiti Sains Malaysia	Haemostasis Workshop, “ From Bed to Bench”.
2013	Univesiti Sains Malaysia	Workshop on Intensive Course on Intermediate Statistic and Scientific Writing Thesis.
2013	Univesiti Sains Malaysia	Workshop on Intensive Course on Basic Statistic and Research Methodology.

2013	Univesiti Sains Malaysia	Seminar on Best Practice in Molecular Monitoring of CML.
2013	Univesiti Sains Malaysia	Workshop on quantitative real time –PCR (QR-PCR).
2013	Univesiti Sains Malaysia	3 workshops on Repeated Measure analysis of Variance (RM-ANOVA) and analysis of co-variance (ANCOVA).
2013	HGM, Singapore	Working with ENCODE data - One-Day Workshop.
2013	Agilent Evening Symposium, Singapore	Identification and Validation of Familiar Breast Cancer Susceptibility Genes Sponsored by Agilent Technology.
2013	Univesiti Sains Malaysia	certificate, BioRad i12 IEF System Training, Hematology.
2012	Univesiti Sains Malaysia	Intensive course on “Intermediate statistic, Scientific Writing and Producing Quality Thesis”.
2012	Univesiti Sains Malaysia	4 workshops on RM-ANOVA , ANOVA and ANCOVA.
2011	Univesiti Sains Malaysia	<i>Intensive course on “Intermediate statistic, Scientific Writing and Producing Quality Thesis”.</i>
2011	Univesiti Sains Malaysia	<i>Occupational Safety and Health Course.</i>
2011	Univesiti Sains Malaysia	<i>Hemostasis Seminar.</i>
2011	Univesiti Sains Malaysia	<i>Biosafety and Fume Hood Awareness.</i>
2011	Univesiti Sains Malaysia	<i>Intensive course on “Basic statistic and Research”.</i>
2011	Univesiti Sains Malaysia	<i>Scientific writing workshop.</i>
2011	Univesiti Sains Malaysia	<i>Basic Microscopy Seminar.</i>
2011	Univesiti Sains Malaysia	<i>Bioinformatics for Medical applications.</i>
2011	Univesiti Sains Malaysia	<i>The IXTH Malaysian National Haematology Scientific Meeting.</i>
2010	Univesiti Sains Malaysia	<i>Whole Human Genomic Expression Microarray.</i>
2010	Univesiti Sains Malaysia	<i>Workshop on Flow Cytometry.</i>
2010	Univesiti Sains Malaysia	<i>Bioinformatics Applications in Medicine.</i>
2009	Univesiti Sains Malaysia	<i>3rd AMDI Postgraduate Scientific Seminar.</i>
2008	Univesiti Sains Malaysia	<i>Laboratory Safety course.</i>
2006	High Medical Institute	<i>Diagnosis and Control of Intestinal Schistosomiasis.</i>
2004	High Medical Institute	<i>Workshop on Malaria Diagnosis and Control.</i>

