

Curriculum Vitae

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EDUCATION

- 1- Doctoral of Philosophy-School of Medicine-University of Queensland (2015)
 - 2- Masters of Clinical Science-Clinical Microbiology-Griffith University (2009)
 - 3- Bachelor of Botany/Microbiology-College of Science- King Saud University (2006)
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CURRENT POSITION

Assistant Professor (Medical virology and microbial diagnosis)- Department of Botany and Microbiology-
College of Science- King Saud University

POSITIONS HELD

1. Deputy of Department of Botany and Microbiology-College of Science- King Saud University (24/1/2018AD-09/12/2022)
2. Assistant Professor- Department of Botany and Microbiology- College of Science- King Saud University (4/01/2016AD TO DATE)
3. Lecturer- Department of Botany and Microbiology- College of Science- King Saud University (03/03/2011AD UNTIL 04/01/2016).
4. Representative of the Faculty of Science at the Center of Excellence in Biotechnology- King Saud University (2024)
5. Head of practical lessons development committee (2022). Department of Botany and Microbiology-Science College (Female Students Campus)-King Saud University
6. Head of Precautionary Committee-COVID-19 response, Department of Botany and Microbiology-Science College (Female Students Campus)-King Saud University (2020 -2021)
7. Head of ISO committee, Department of Botany and Microbiology, Science College (Female Students Campus)-King Saud University (2021)
8. Head of Training Unit-Science College (Female Students Campus)-King Saud University- 23/12/2016 AD 23/12/2018)
9. Head of laboratories committee- College of Science (Female Students Campus)-King Saud University (19/12/2016 – 19/12/2017)
10. Head of laboratories and Safety committee, Department of Botany and Microbiology-Science College (Female Students Campus)-King Saud University (31/12/2015 until-31/06/2021)
11. Head of eLearning Unit-Science College (Female Students Campus)-King Saud University (4/01/2016AD until 23/12/2016 AD)
12. Head of eLearning Committee Department of Botany and Microbiology-Science College (Female Students Campus)- King Saud University (31/12/2015AD-31/12/2018)
13. Head of Accreditation committee - Department of Botany and Microbiology-Science College (Female Students Campus)-King Saud University (31/12/2018 AD TO 31/12/2018)
14. Head of Students Affairs Committee Department of Botany and Microbiology-Science College (Female Students Campus)-King Saud University (2019 and 2020)
15. Coordinator of Students Internship Program held in Copenhagen, Denmark for the favor of the students of the Department of Botany and Microbiology.
16. Coordinator of the students training programs for microbiology program students during 2018,2019 and 2020.

17. Coordinator of a number of courses (140 MBIO, 250 MBIO, 320 MBIO, 450 MBIO) for several years.

PROFESSIONAL MEMBERSHIPS

1. Member of Scientific board, COVID19 research chair (March 2022 to date)
 2. Member of Board of directors. Saudi Biological Society (April 2022 – 3 years membership)
 3. Member in Saudi Biological Society.
 4. Member in The Acting Committee for Risk Management-King Saud University (24/01/2017- 24/1/2021).
 5. Member in Australian society of microbiology (from 2010-2015).
 6. Member of Risk Management – King Saud University for the years 2017, 2019, 2020).
 7. Member of Laboratories Accreditation Committee- College of Science- During the academic year 1438-1439 Hijri.
 8. Member of Supreme Committee – - Department of Botany and Microbiology-Science College (Female Students Campus)-King Saud University (31/12/2018 AD TO DATE)
 9. Member of student affairs committee Department of Botany and Microbiology-Science College (Female Students Campus)-King Saud University (2018 & 2022; Head of the committee for 2019,2020&2021)
 10. Member of Curriculum and Learning Resources Committee Department of Botany and Microbiology-Science College (Female Students Campus)-King Saud University (31/12/2018 AD TO DATE)
 11. Member of Science College Investment committee, Science College-King Saud University (2020)
 12. Member of strategic planning committee, Science College, King Saud University (2021).
 13. Member of the Scientific Committee for the Biotechnology Forum at the Faculty of Science (2024)
 14. Member of the Scientific Committee for the Annual Meeting of the Saudi Society for Life Sciences (2024)
 15. Member of the Committee for Updating the Authority Matrix at the Faculty of Science (2024)
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Teaching the following courses:

- General Microbiology (140MBIO)
 - General Virology (250MBIO)
 - Molecular biology (251MBIO)
 - Microbial Diagnosis (320MBIO)
 - Medical Virology (450MBIO)
 - Scientific communication (490MBIO)
 - Advanced virology (511MBIO, Master's course)
 - Microbial biotechnology (566MBIO, Master's course)
 - Specialized topics (599MBIO, Master's course)
 - Microscopic Forensic science (EFOR512)
 - Advanced technologies in virology (612MBIO, practical PhD course)
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Academic Supervision:

Academic Theses

1. Master's degree thesis (On-going): Molecular Epidemiology of Human Rhinovirus Infections among Children in Riyadh Hospitals. STUDENT: Fatimah Alonazi. ROLE: Principle Supervision
2. Master's degree thesis (On-going): Isolation and Characterization of Bacteriophages Specific to Escherichia coli from Different Freshwater Sources in Taif City Saudi Arabia. STUDENT: Manal Qayid. ROLE: Co-supervisor Investigating the Gut-Vaginal Microbiome Axis: Its Role in Recurrent Implantation Failure and Reproductive Health. STUDENT: Sarah Albaqmi. ROLE: 2nd co-supervisor
3. Master's degree thesis (On-going):
4. Master's degree thesis (completed): SARSCoV2 whole genome sequencing using next generation sequencing for tracing variants in Saudi patients. . STUDENT: Fedaa Ali Alswairi. ROLE: Principle Supervisor
5. Master's degree thesis (completed): Isolation Purification and Characterization of Bacteriophages Related to Salmonella sp from Local Poultry Farms and Products. STUDENT: Alyah Almarri. ROLE: Principle Supervisor
6. Master's degree thesis (Completed):: Genetic Variability in E6 E7 and L1 Genes of Human Papillomavirus Type16 and 18 in Women from Saudi Arabia. STUDENT: Madain Saleh Alsanea ROLE: Principle Supervisor.

7. Master's degree thesis (Completed):: Molecular Detection and Spike Gene Characterization of Middle East Respiratory Syndrome-Related Coronavirus (MERS-CoV) And Dromedary Camel Coronavirus (DcCoV UAE-HKU23) From Dromedaries in Riyadh. STUDENT: Taybah Aljasem. ROLE: Principle Supervisor.
8. Master's degree thesis (Completed): The Impact of Some Feed Additives on Intestinal Microbiome Diversity of Broiler Chicken Challenged with Salmonella typhimurium and Clostridium perfringens. STUDENT: Mashael Riyadh Aljumaah- ROLE: co-supervision.
9. Master's degree thesis (Completed):: Association Between High-Risk Human Papillomaviruses (HPVs) and Chlamydia trachomatis Co-Infection in Cervical Dysplasia. STUDENT: Haifa Jamal Alotaibi. ROLE: co-supervision.
10. Master's degree thesis (Completed):: Interactive impact of arbuscular mycorrhizal fungi to induce acquired systemic resistance and disease tolerance against tomato mosaic virus. STUDENT: Rawan Alswaileh. ROLE: co-supervision.

PUBLICATIONS (*Summary*)

- Refereed Journal Papers (12)
- Conference Papers and workshops(10)

PUBLICATIONS

JOURNAL PAPERS

1. **Alsaleh, A. N.**, Grimwood, K., Sloots, T. P., & Whiley, D. M. (2014). A retrospective performance evaluation of an adenovirus real-time PCR assay. *Journal of medical virology*, 86(5), 795-801. doi:10.1002/jmv.23844
2. **Alsaleh, A. N.**, Whiley, D. M., Bialasiewicz, S., Lambert, S. B., Ware, R. S., Nissen, M. D., Sloots, T. P., et al. (2014). Nasal swab samples and real-time polymerase chain reaction assays in community-based, longitudinal studies of respiratory viruses: the importance of sample integrity and quality control. *BMC infectious diseases*, 14(1), 15. doi:10.1186/1471-2334-14-15
3. Kumar, A. & Czovek, D. & Shackleton, Claire & Hantos, Zoltan & Grimwood, K. & Sarna, Minda & Whiley, D. & Sloom, T. & Alsaleh, Asma & Lambert, S. & Sly, Peter. (2015). WHEEZY EPISODES DURING THE FIRST YEAR OF LIFE DECREASE AIRWAY DISTENSIBILITY. *Respirology*. 20. 27-27.
4. Sarna M1, **Alsaleh A**, Lambert SB, Ware RS, Mhango LP, Mackay IM, Whiley DM, Sloots TP, Grimwood K (2016). Respiratory Viruses in Neonates: A Prospective, Community-based Birth Cohort Study. *Pediatr Infect Dis J*. 2016 Dec;35(12):1355-1357. DOI: 10.1097/INF.0000000000001316
5. Sarna, M., Lambert S., Sloots T., Whiley D., **Alsaleh A.**, Mahango L., Bialasiewics S., Wang D., Nissen M., Grimwood K., Ware R. (2017). Viruses causing lower respiratory symptoms in children younger than 2-years of age: findings from the ORChID birth cohort. *Thorax*.
6. Farrag MA, Amer HM, Aziz IM, **Alsaleh AN**, Almajhdi FN. The emergence of subgenotype ON-1 of Human orthopneumovirus type A in Riyadh, Saudi Arabia: A new episode of the virus epidemiological dynamic. *J Med Virol*. 2020 Aug;92(8):1133-1140. doi: 10.1002/jmv.25643. Epub 2019 Dec 9. PMID: 31777964.
7. Saquib, Quaiser & Ahmad, Mohammad & Al-Rehaily, Adnan & Siddiqui, Maqsood & Faisal, Mohammad & Ahmad, Javed & **Alsaleh, Asma** & Alatar, Abdularhaman & Khan, M.. (2020). Anticancer efficacies of persicogenin and homoeriodictyol isolated from Rhus retinorrhoea. *Process Biochemistry*. 10.1016/j.procbio.2020.02.008.
8. Albasher G, Alsaleh AS, Alkubaisi N, Alfarraj S, Alkahtani S, Farhood M, Alotibi N, Almeer R. Red Beetroot Extract Abrogates Chlorpyrifos-Induced Cortical Damage in Rats. *Oxid Med Cell Longev*. 2020 Mar 9;2020:2963020. doi: 10.1155/2020/2963020. PMID: 32215171; PMCID: PMC7085382.
9. Alotaibi HJ, Almajhdi FN, **Alsaleh AN**, Obeid DA, Khayat HH, Al-Muammer TA, Tulbah AM, Alfageeh MB, Al-Ahdal MN, Alhamlan FS. Association of sexually transmitted infections and human papillomavirus co-infection with abnormal cervical cytology among women in Saudi Arabia. *Saudi J Biol Sci*. 2020 Jun;27(6):1587-1595. doi: 10.1016/j.sjbs.2020.03.021. Epub 2020 Mar 19. PMID: 32489299; PMCID: PMC7253883.
10. Aljumaah MR, Alkhulaifi MM, Abudabos AM, Aljumaah RS, **Alsaleh AN**, Stanley D. Bacillus subtilis PB6 based probiotic supplementation plays a role in the recovery after the necrotic enteritis challenge. *PLoS One*. 2020 Jun 18;15(6):e0232781. doi: 10.1371/journal.pone.0232781. PMID: 32555739; PMCID: PMC7302482.

11. Aljasim TA, Almasoud A, Aljami HA, Alenzazi MW, Alsagaby SA, **Alsaleh AN** & Alharbi NK. (2020). High Rate of Circulating MERS-CoV in Dromedary Camels at Slaughterhouses in Riyadh, 2019. *Viruses* 2020, 12, 1215; doi:10.3390/v12111215
12. Mehetre GT, Leo VV, Singh G, Sorokan A, Maksimov I, Yadav MK, Upadhyaya K, Hashem A, **Alsaleh AN**, Dawoud TM, Almaary KS and Singh BP, Current Developments and Challenges in Plant Viral Diagnostics: A Systematic Review, 2020, *Viruses*, 13, 412, <https://doi.org/10.3390/v13030412>
13. Alsanea M, **Alsaleh AN**, Obeid D, Alhadeq F, Alahideb B, Alhamlan F. Genetic Variability in the E6, E7, and L1 Genes of Human Papillomavirus Types 16 and 18 among Women in Saudi Arabia. *Viruses*. 2022 Dec 30;15(1):109. doi: 10.3390/v15010109. PMID: 36680149; PMCID: PMC9862970.
14. Alzayed RM, Aziz IM, **Alsaleh AN**, Dudin GA, Ahmed AA, Hussain T, Alshememry AK, Somily AM, Alsaadi MM, Almajhdi FN. ON-1 and BA-IX Are the Dominant Sub-Genotypes of Human Orthopneumovirus A&B in Riyadh, Saudi Arabia. *Genes (Basel)*. 2022 Dec 5;13(12):2288. doi: 10.3390/genes13122288. PMID: 36553555; PMCID: PMC9778264.
15. Alkubaisi NA, Aziz IM, **Alsaleh AN**, Alhethel AF, Almajhdi FN. Molecular Profiling of Inflammatory Mediators in Human Respiratory Syncytial Virus and Human Bocavirus Infection. *Genes*. 2023; 14(5):1101. <https://doi.org/10.3390/genes14051101>
16. Alsuwairi FA, **Alsaleh AN**, Alsanea MS, Al-Qahtani AA, Obeid D, Almaghrabi RS, Alahideb BM, AlAbdulkareem MA, Mutabagani MS, Althawadi SI, et al. Association of SARS-CoV-2 Nucleocapsid Protein Mutations with Patient Demographic and Clinical Characteristics during the Delta and Omicron Waves. *Microorganisms*. 2023; 11(5):1288. <https://doi.org/10.3390/microorganisms11051288>
17. Mumtaz, S., Ali, A., Sharif, H.M., Aljowaie, R.M., **Alsaleh, A.N.**, Khan, H., Naeem, M., Abbasi, A.M., 2023. Assessment of sunscreen effects in photosensitivity under UV exposure during COVID-19 pandemic. *Journal of King Saud University-Science* 35, 102970.
18. **Alsaleh, A.N.**, Aziz, I.M., Alkubaisi, N.A., Almajhdi, F.N., 2024. Genetic analysis of human parainfluenza type 2 virus in Riyadh, Saudi Arabia. *Virus Genes* 60, 1–8.
19. Alsuwairi, F.A., **Alsaleh, A.N.**, Obeid, D.A., Al-Qahtani, A.A., Almaghrabi, R.S., Alahideb, B.M., AlAbdulkareem, M.A., Alsanea, M.S., Alharbi, L.A., Althawadi, S.I., 2024. Genomic Surveillance and Mutation Analysis of SARS-CoV-2 Variants among Patients in Saudi Arabia. *Microorganisms* 12, 467.
20. Farrag, M.A., Aziz, I.M., **Alsaleh, A.N.**, Almajhdi, F.N., 2024. Human bocavirus in Saudi Arabia: Molecular epidemiology and Co-infections among children with acute respiratory tract infections during 2014–2016. *Heliyon* 10.
21. Alsaleh, A.N., Aziz, I.M., Aljowaie, R.M., Alshalan, R.M., Alkubaisi, N.A., Aboul-Soud, M.A.M., 2024. In Vitro Evaluation, Chemical Profiling, and In Silico ADMET Prediction of the Pharmacological Activities of Artemisia absinthium Root Extract. *Pharmaceuticals* 17, 1646. <https://doi.org/10.3390/ph17121646>
22. Aziz, I.M., Alfuraydi, A.A., Almarfadi, O.M., Aboul-Soud, M.A.M., Alshememry, A.K., Alsaleh, A.N., Almajhdi, F.N., 2024. Phytochemical analysis, antioxidant, anticancer, and antibacterial potential of Alpinia galanga (L.) rhizome. *Heliyon* 10, e37196. <https://doi.org/10.1016/j.heliyon.2024.e37196>

CONFERENCE & WORKSHOP PAPERS:

1. ALSALEH AN. A preliminary investigation of PCR negative clinical respiratory samples using the Abbott Ibis system. Australian Society of Microbiology Annual Scientific Meeting and Exhibition. (July-2012). Brisbane. Format: Poster presentation
2. ALSALEH AN. Improving quality assurance for PCR diagnostics: using adenovirus as an example. Queensland Children Medical Research Institute, Students expo (August-2012) –Format: Oral presentation.
3. ALSALEH AN. The ORChID study; an observational research in children infectious disease; quality issues. Capricornia Medical Science Association 5th Scientific conference. (June-2013) Rockhampton . Format: Oral presentation.
4. ALSALEH AN. The Influence of Suboptimal Swab Sample Collection and Transport for Community-Based Studies of Respiratory Viruses. Australian Society of Microbiology Annual Scientific Meeting and Exhibition. (July-2013). Adelaide. Format: Poster presentation.
5. ALSALEH AN. Quality In PCR Laboratories. College of Science. King Saud University. (March 2018) Format: WORKSHOP
6. ALSALEH AN. Laboratory Documentation for Technical and Research Work. College of Science. King Saud University (September 2019). Format: Workshop

7. ALSALEH AN. Summary in current researches in infectious disease. VACCID research day: Vaccine in infection control – King Saud University. Riyadh (October 2019).
8. ALSALEH AN. Functionality and effectiveness of current SARS-CoV2 RT-PCR assays. COVID-19 pandemic challenges workshop- the role of Saudi University in the development of diagnostic and therapeutic tools to overcome the pandemic- - Ministry of Education. Format Workshop.
9. ALSALEH AN. Understanding SARS-CoV2 Characteristics for Better Infection Prevention and Control Practices. Saudi Pharmacology Society Student Chapter. Format: Workshop.
10. ALSALEH AN. COVID-19; Virus characteristics and public prevention. Institute of Public Administration. Format: Workshop.
11. ALSALEH AN. Viruses detection methods; PCR vs Immunoassays. LEK institute. Format: Workshop
12. ALSALEH AN. Quality in PCR laboratories; Riyadh Alelm University 2023. Format: Workshop
13. ALSALEH AN. Good Laboratory Management Practices. 2023. College of Science. King Saud University

Unpublished Projects

- Design of a comprehensive and high-resolution test to diagnose all strains of adenovirus by TaqMan-probe Queensland Laboratory for Pediatric Infectious Diseases- Children's Hospital-Brisbane
- Molecular characterization of rhinovirus strains isolated from weekly nasal swabs for infants during the first year of life targeting viral protein 2/4 VP2 / VP4 genes, 5'UTR and VP1- Queensland Laboratory for Pediatric Infectious Diseases - Children's Hospital – Brisbane
- The effect of environmental fungi on the quality of nasal swab samples collected for the diagnosis of respiratory viruses by polymerase chain reaction. Queensland Laboratory for Pediatric Infectious Diseases - Children's Hospital – Brisbane
- Genetic identification of the types of fungi contaminating the home-isolated nasal swab samples by targeting the internal transcribed region in the fungi genome. Queensland Laboratory for Paediatric Infectious Diseases - Children's Hospital – Brisbane
- Molecular characterization project for Chlamydia trachomatis strains in Queensland - The project was held in 2009 - at the Queensland Laboratory for Infectious Diseases for Children - Royal Children's Hospital – Brisbane

SKILLS

- Virus molecular biology techniques:
 - designing and evaluating molecular diagnostic tests based on PCR & real-time PCR technologies.
 - identification and analysis of nucleotide & protein sequences.
 - Nucleic acids and proteins phylogenetic and evolutionary analysis and tree constructions
- Worked on several copies of real-time PCR devices and the ability to operate and analyze their data such as:
 - Rotorgene series (3000,6000, RG-Q),
 - Applied biosystem ABI7500, and Vii7
 - Roche LightCycler4800
 - many conventional PCR instrument
- Worked on several copies of robotic devices for sample extraction and liquid handling systems
- Professional microbiology laboratory skills in its various branches. Development, cultivation and extraction of mycotoxins
- Very advanced skills in specialized programs for genetic and protein analysis such as (BioEdit, MEGA 5,6 & 7 & Geneious Pro)
- Very advanced office software skills (Microsoft Office [word, excel, PowerPoint], adobe acrobat DC, adobe illustrator)