

Personal Information

- **Name:** Bader Obaid Al-mutairi.
- **Position:** Associate professor of cancer epigenetics, Zoology department, Faculty of science, King Saud university.
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- **Nationality:** Saudi.

Academic Qualifications

PhD in cancer epigenetics, Cellular and Molecular Medicine department, faculty of Biomedical sciences, Bristol university (2013-2017).

Master of science in Medical molecular biology with genetics, Biological sciences department, faculty of Natural sciences, Bangor university (2009-2010).

Bachelor of science, Zoology department, faculty of science, King Saud university (2003-2007).

Career History

Teaching assistant, Zoology department, faculty of science, king Saud university 2008-2012.

Lecturer, Zoology department, faculty of science, king Saud university 2012- 2018.

Assistant professor, Zoology department, faculty of science, king Saud university 2018-2022.

Associate professor, Zoology department, faculty of science, king Saud university 2022-present.

Awards

Second Class Honor in bachelor degree, zoology department, faculty of sciences, king Saud university 2007.

Cultural Attaché Award (Award for Excellence) for the academic year 2014/2015 in United Kingdom.

Cultural Attaché Award (Award for Excellence) for the academic year 2015/2016 in United Kingdom.

Cultural Attaché Award (Award for Excellence) for the academic year 2016/2017 in United Kingdom.

Ambassador Award (Award for Excellence), 2017.

Training and workshops

Course design, Assessment and Delivery (4 hours).

Improving Student Motivation (4 hours).

Basic of academic leader ship (10 hours).

Design and construction of the course (9 hours).

Course on effective teaching (12 hours).

Evaluating learning out comes (9 hours).

Micro teaching (4 hours).

E-learning system and its components (3 hours).

Classroom assessment Methods (2 hours).

Classroom strategies in teaching gifted students (2 hours).

Performance assessment in the virtual classroom (3 hours).

Skills of Content analysis and use of multimedia (2 hours).

Strategies for extension activities (3 hours).

Building Your Consulting Portfolio, King Abdullah Institute for Research & Consulting Studies (12 Hour).

Techniques of Question Writing (12 Hour).

Scoring the International PISA 2025 Assessment (12 hour).

Teaching and supervision

Experience

Bachelor Degree:

Principles of General Zoology, General Biology, Principles of genetics, Molecular biology, Genetic Engineering, Human Genetics, Cell biology & Physiology and Graduation project.

MSc Degree:

Seminar, Selected Topics in Cell Biology, Genetics, and Histology, Research project and Thesis.

PhD Degree:

Seminar, Research project and Dissertation.

PhD and Master Students:

Ahmed I. Alsayadi, project's title "**Potential Anticancer and Anti-inflammatory Effects of Innovative Polyherbal Extracts**".

Ahmed Sholiah Mater, project's title "**Cytotoxic and synergistic potentials of selected plant extracts with Vinblastine against human Breast and hepatic cell lines**".

Yara M. Alabboud, project's title "**Gene Expression of Selected Cancer Germline Genes in Saudi Patients with Colon Cancer**".

Bashayer S. Aljuhani , project's title "**The Impact of DNA Methylation Alternations on the Regulation of Tumor Suppressor Gene Expressions in Colon Cancer Patients**".

Sahar H. Algradi , project's title "**The Impact of DNA Methylation on the Regulation of Tumor Suppressor Genes Expression in Leukemia Patients**".

Waad A. Alsoraie, project's title "**Identification of MAGE C Family Gene Expressions and their Epigenetic Mechanism Regulations in Colon Cancer Tissues**".

Hani Kamal, project's title "**The potential impacts of Asiatic acid against testosterone-induced benign prostatic hyperplasia in rats**".

Administrative duties

Member of zoology department board 2018- present.

Member of curriculum development committee, zoology department 2018- present.

Director of technical affairs unit, faculty of science, 2019- 2021.

Coordinator of laboratories and safety, zoology department, 2019-present.

Member of Supreme Steering, zoology department, 2019- present.

Member of Occupation Safety and Health, faculty of science 2020- 2021.

Secretary of zoology department council, 2021- present.

Director of laboratories and safety unit, faculty of science, 2022- present.

Representative of Saudi Arabia (Governor) at International Centre for Genetic Engineering and Biotechnology, 2020-present.

Member of Executive MSc in Quantitative Genetics & Genome Analysis' establishing committee, faculty of science 2024-present.

Director of central Lab, faculty of science, 2024-present.

Conferences and symposiums

Attendance, 8th mammalian genes development and diseases, Bristol, United Kingdom (2014).

Participation, 8th Saudi Students' conference, London, United Kingdom (2015).

Participation, 4th Neuroblastoma Research Symposium, Newcastle, United Kingdom (2015).

Participation, 9th Saudi Students' conference, Birmingham, United Kingdom (2016).

Participation, CMM away day, Bristol, United Kingdom (2016).

Participation, International Conference and Exhibition for Science (ICES2023).

Participation, Human Cancer Genome Research Conference (HCGRC2024).

Research Grants

Principal investigator, RSP2022R414, King Saud University. 01-01-2022 to 31-12-2022.

Principal investigator, RSP2023R414, King Saud University. 01-01-2023 to 31-12-2023.

Principal investigator, IFKSUPR3, Agency for Research and Innovation, Ministry of Education. 01-05-2023 to 31-12-2023.

Principal investigator, RSP2024R414, King Saud University. 01-01-2024 to 31-12-2024.

Principal investigator, KSRG-2024-237, King Salman Centre for Disability research. 01-01-2025 to 31-12-2025.

Principal investigator, ORF-2025-414, King Saud University. 25-05-2025 to 31-12-2025

Community Service

Train the researchers, Research Assistant Internship Program, Deanship of Scientific research, King Saud University.

Involve in Teaching anatomy and physiology course for gifted students King Abdulaziz and His companions foundation for giftedness and creativity (Mawhiba).

Involve in organizing Research Enrichment Program in Materials Science and Nanotechnology at King Saud University for gifted students King Abdulaziz and His companions foundation for giftedness and creativity (Mawhiba).

Contribute to Write/ Evaluate/ Translate questions for the following modules: Science 1, Science 2 and biology, Readiness test 1, Education and training Evaluation commission.

Contribute to Score the International PISA 2025 Assessment.

Publications

Genome-wide DNA methylation analysis identifies MEGF10 as a novel epigenetically repressed candidate tumor suppressor gene in neuroblastom.

Jessica Charlet, Ayumi Tomari, Anthony R, Dallosso, Marianna Szemes, Martina Kaselova, Thomas J. Curry, **Bader Almutairi**, Heather C, Etchevers Carmel McConville, Karim T. A. Malik Keith W. Brown (2016).

Assessment of DNA damage and oxidative stress in juvenile Channa punctatus (Bloch) after exposure to multi-walled carbon nanotubes. Daoud Ali, Fawaz A. Falodah, **Almutairi B**, Saad Alkahtani, Saud Alarifi (2019).

Epigenetic deregulation of GATA3 in neuroblastoma is associated with increased GATA3 protein expression and with poor outcomes. Bader Almutairi, Jessica Charlet, Anthony R Dallosso, Marianna Szemes, Heather C Etchevers, Karim T. A. Malik and Keith W. Brown. (2019).

Fucoidan Ameliorates Oxidative Stress, Inflammation, DNA Damage, and Hepatorenal Injuries in Diabetic Rats Intoxicated with Aflatoxin B. Mohammed S. Aleissa, Saad Alkahtani, Mabrouk Attia Abd Eldaim , Ali Meawad Ahmed, Simona G. Bungău ,**Bader Almutairi**, May Bin-Jumah ,Abdullah A. AlKahtane, Mohamed S. Alyousif , and Mohamed M. Abdel-Daim (2020).

TSLP receptor as biomarker for Breast Cancer Progression. abdelhabib semlali, Mikhlid H. Almutairi; Sultan N. Alharbi; Abdullah M. Al Amri; Abdulwahed F. Alrefaei; **Bader O. Almutairi**; Mahmoud Rouabhia (2020).

Investigation of cytotoxicity, apoptotic and inflammatory responses of biosynthesized zinc oxide nanoparticles from Ocimum sanctum Linn in human skin keratinocyte (HaCaT) and human lung epithelial (A549) cells. Bader Almutairi, Gadah Albahser, Rafa Almeer, Nouf M Alyami, Hanouf Almukhlafi, Khadijah N Yaseen, Saad Alkahtani, Saud Alarifi (2020).

The protective effects of the methylenetetrahydrofolate reductase rs1801131 variant among Saudi smokers. Mikhlid H. Almutairi; Nouf S. Al-Numair; Narasimha reddy Parine; **Bader O. Almutairi**; Abdulwahed F. Alrefaei; Mahmoud Rouabhia; Abdelhabib Semlal (2021).

Association between tobacco substance usage and a missense mutation in the tumor suppressor gene P53 in the Saudi Arabian population. Mikhlid H. Almutairi, **Bader O. Almutairi**, Turki M. Alrubie, Sultan N. Alharbi, Narasimha R. Parine, Abdulwahed F. Alrefaei , Ibrahim Aldeailej, Abdullah Alamri, Abdelhabib Semlali.(2021).

Human beta-defensin-1 rs2738047 polymorphism is associated with shisha smoking risk among Saudi population. Mikhliid Almutairi & Bader Almutairi & Mohammad Almutairi & Narasimha Reddy Parine & Abdulwahed Alrefaei & Mohammad Alanazi & Abdelhabib Semlali (2021).

The correlation between single nucleotide polymorphisms of the thymic stromal lymphopoietin receptor and breast cancer in a cohort of female patients in Saudi Arabia. Abdelhabib Semlali & Mikhliid H. Almutairi & Sultan N. Alharbi & Abdullah M. Alamri & Abdulwahed F. Alrefaei & **Bader O. Almutairi** & Mahmoud Rouabhia (2021).

Tantalum doped TiO₂ nanoparticles induced cytotoxicity and DNA damage through ROS generation in human neuroblastoma cells. **Bader Almutairi**, Daoud Ali, Nouf Alyami, Norah S. Alothman, Saad Alakhtani, Saud Alarifi (2021).

Mechanisms of Apoptotic Cell Death by Stainless Steel Nanoparticle Through Reactive Oxygen Species and Caspase-3 Activities on Human Liver Cells. **Bader Almutairi**, Daoud Ali, Khadijah N. Yaseen, Norah S. Alothman, Nouf Alyami, Hanouf Almukhlafi, Saad Alakhtani and Saud Alarifi (2021).

The protective effect of Ammi visnaga extract against human hepatic cancer. Mohammed Waleed Arafah, **Bader Almutairi**, Mohammed Al-Zharani , Abdullah A. Alkahtane, Fatimah O. Al-Otibi, Daoud Ali, Wadha M. Alghamdi, Ibtesam S. Alanazi, Nada H. Aljarba, Norah M. Alhoshani, Norah S. AL-Johani, Nora Alkeraishan, Alhanof Alhenaky, Saud Alarifi, Saad Alkahtani (2021).

Tantalum doped TiO₂ nanoparticles induced cytotoxicity and DNA damage through ROS generation in human neuroblastoma cells. **Bader Almutairi**, Daoud Ali, Nouf Alyami, Norah S. Alothman, Saad Alakhtani, Saud Alarifi (2021).

Antioxidant and anti-inflammatory activities of lycopene against 5-fluorouracil-induced cytotoxicity in Caco2 cells. Norah M. Alhoshani, Mohammed Al-Zharani, **Bader Almutairi**, Nada H. Aljarba, Norah S. AL-Johani, Nora Alkeraishan, Abdullah A. AlKahtane , Saud Alarifi, Daoud Ali, Saad Alkahtani (2022).

Protective effect of coenzyme-10 and piperine against cyclophosphamide-induced cytotoxicity in human cancer HuH-7 cells. Norah S. AL-Johani, Mohammed Al-Zharani, **Bader Almutairi**, Nada H. Aljarba, Norah M. Alhoshani, Nora Alkeraishan, Saud Alarifi, Daoud Ali, Saad Alkahtani (2022).

Dose-Dependent Variation in Anticancer Activity of Hexane and Chloroform Extracts of Field Horsetail Plant on Human Hepatocarcinoma Cells. Hadeel A. Almasoud, Daoud Ali, Khadijah N. Yaseen, Hanouf Almukhlafi, Norah S. Alothman, **Bader Almutairi** , Rafa Almeer, Nouf Alyami, Saad Alkahtani , and Saud Alarifi (2022).

Evaluating the efficacy of an innovative herbal formulation (HF6) on different human cancer cell lines. Ahmed I. Alsayadi· Nael Abutaha · **Bader O. Almutairi** · Fahd A. Al-Mekhlafi· Mohamed A. Wadaan (2022).

Exploring the therapeutic potential of GC–MS separated compounds from *Dracaena cinnabari* against dengue virus and *Aedes aegypti* using in silico tools .Nael Abutaha , **Bader O. Almutairi** (2022).

Cancer-Testis Gene Biomarkers Discovered in Colon Cancer Patients. Mikhliid H. Almutairi, Turki M. Alrubie, Abdullah M. Alamri, **Bader O. Almutairi**, Abdulwahed F. Alrefaei, Maha M. Arafah, Mohammad Alanazi and Abdelhabib Semlali(2022).

Evaluation of Cyto - and Genotoxic Influence of Lanthanum Dioxide Nanoparticles on Human Liver Cells.Saba M. Alsubaie, Daoud Ali, **Bader O. Almutairi**, Rafa Almeer, and Saud Alarifi (2022).

S-phase cell cycle arrest, and apoptotic potential of *Echium arabicum* phenolic fraction in hepatocellular carcinoma HepG2 cells. Nael Abutaha, Fahd A. AL-Mekhlafi, **Bader O. Almutairi**, Muhammad A. Wadaan (2022).

The Expression Patterns of Human Cancer-Testis Genes Are Induced through Epigenetic Drugs in Colon Cancer Cells. Mikhliid H. Almutairi, Turki M. Alrubie, **Bader O. Almutairi** , Abdullah M. Alamri, Abdulwahed F. Alrefaei , Maha M. Arafah, Mohammad Alanazi and Abdelhabib Semlali (2022).

Identification of MAGE-A family genes in colon cancer patients and their expression mechanism. Mikhliid H. Almutairi, Mona M. Alotaibi, Rasha Alonaizan, Abdulwahed F. Alrefaei, **Bader O. Almutairi** (2022).

Identification and characterization of testis-specific gene expressions in mouse tissues. Turki M. Alrubie, Jilani P. Shaik, Abdullah M. Alamri, **Bader O. Almutairi**, Mohanad A. Ibrahim, Mohammad Alanazi , Mikhliid H. Almutairi(2023).

HSPB6 Is Depleted in Colon Cancer Patients and Its Expression Is Induced by 5-aza-2 Deoxycytidine In Vitro. **Bader O. Almutairi**, Mikhliid H. Almutairi , Abdulwahed F. Alrefaei , Saad Alkahtani and Saud Alarifi (2023).

Higher Expression Levels of SSX1 and SSX2 in Patients with Colon Cancer: Regulated In Vitro by the Inhibition of Methylation and Histone Deacetylation. Turki M. Alrubie , Abdullah M. Alamri, **Bader O. Almutairi** , Abdulwahed F. Alrefaei , Maha M. Arafah , Mohammad Alanazi , Abdelhabib Semlali and Mikhliid H. Almutairi (2023).

In vitro antiproliferative efficacy of *Annona muricata* seed and fruit extracts on several cancer cell lines. **Bader O. Almutairi**, Ahmed Sholiah Mater, Nael Abutaha, Mikhliid H. Almutairi (2023).

Synthesis of 1-(4-chlorobenzoyl)-4-(dimethylamino) pyridin-1-ium chloride and determination of cytotoxicity and apoptosis in human colon cancer cells. Bader O. Almutairi, Saud M. Almutairi, Saud Alarifi (2024).

Green Lead Nanoparticles Induced Apoptosis and Cytotoxicity in MDA-MB-231 Cells by Inducing Reactive Oxygen Species and Caspase 3/7 Enzymes. Wadyan Lafi Alsulami, Daoud Ali, Bader O. Almutairi, Khadijah N. Yaseen, Saad Alkahtani, Rafa A. Almeer, and Saud Alarifi (2024).

Investigating the effect of resveratrol on apoptosis and regulation of gene expression of Caco-2 cells: Unravelling potential implications for colorectal cancer treatment. Mohammed Al-Zharani*, Abdullah A. Alkahtane, Norah S. AL-Johani, Bader Almutairi, Nora Alkeraishan, Saud Alarifi, Sahirah M. Alrajeh, Khadijah N. Yaseen, Nada H. Aljarba, Fahd A. Nasr, Saad Alkahtani (2024).

Determination of dose- and time-dependent hepatotoxicity and apoptosis of Lanthanum oxide nanoparticles in female Swiss albino mice. Nouf M. Alyami, Hussah Alobadi, Saleh Maodaa, Norah S. Alothman, Hanouf Almukhlafi, Khadijah N. Yaseen, Zainab A. Alnakhli, Noura M. Alshiban, Doaa M. Elnagar, Ahmed Rady, Wed A. Alharthi, Bader Almutairi, Rafa Almeer, Saud Alarifi & Daoud Ali (2024).

Asiatic acid mitigates testosterone-induced benign prostatic hyperplasia in rats via activation of PPAR- γ . Hani K. Kamall · Bader O. Almutairi · Ashraf B. Abdel-Naim (2024).

Differential expression and regulation of ADAD1, DMRTC2, PRSS54, SYCE1, SYCP1, TEX101, TEX48, and TMPRSS12 gene profiles in colon cancer tissues and their in vitro response to epigenetic drugs. Mikhlid H. Almutairi^{ID1*}, Turki M. Alrubie, Alaa T. Alshareeda, Nada Albarakati, Alhomidi Almotiri, Abdullah M. Alamri, Bader O. Almutairi, Mohammad Alanazi (2024).

Association of the Genetic Diversity of Killer Cell Immunoglobulin-like Receptor Genes and HLA-C Ligand in Saudi Women With Thyroid Cancer. Razan A. Altalhi, Ali Aljuaimlani, Mohammed Alswayyed, Maha Arafah, Yusra Tashkandy, Bader O. Almutairi, Lamjed Mansour, and Suliman Y. Alomar (2024).

Quercetin has a protective impact on human umbilical vein endothelial cells against tungsten carbide cobalt nanoparticle-induced cytotoxicity, oxidative stress, apoptosis. Wed Alharthi, Daoud Ali, Khadijah N. Yaseen, Bader O Almutairi, Saud Alarifi (2024).

Phytochemical profiling and anticancer potential of Cymbopogon citratus extract. Bader O. Almutairi, Mikhlid H. Almutairi, Badr A. Al-Dahmash, Saad Alkahtani, Saud Alarifi, Ahmed Rady (2024).

Green chemistry approach to synthesize titanium dioxide nanoparticles using Fagonia Cretica extract, novel strategy for developing antimicrobial and antidiabetic therapies. Mikhliid H. Almutairi, Shahrukh Khan, Fozia Fozia, Madeeha Aslam, Ijaz Ahmad, Mika Sillanpää, **Bader O. Almutairi**, and Ziaullah Ziaullah (2024).

Impact of Green-synthesized Copper Silver Nanoparticles Against Human Colon Cancer Cells Utilizing Sargassum muticum Extract in Terms of Cytotoxicity and Apoptosis. **Bader O. Almutairi**, Daoud Ali, Mohammed H. A. Almarzoug, Atheer M. Asiri, Saad Alkahtani and Saud Alarifi (2024).

Increased MAGE-C Family Gene Expression Levels as a Biomarker of Colon Cancer Through the Demethylation Mechanism. Mikhliid H. Almutairi , Waad A. Alsoraie , Turki M. Alrubie , Ahmad S. Alkhaldi, Nada S. Alhajri, Monira A. Alaujan, Manar H. Almutairi and **Bader O. Almutairi** (2024).

The Potential Therapeutic Efficacy of Pomegranate (Punica granatum) Seeds on MCF-7 Breast Cancer Cell Line. Reem A. Alqahtani1, **Bader Almutairi**, Mohammed Al-Zharani , Abdullah A. Alkahtane, Norah S. AL-Johani, Nora Alkeraishan, Khadijah N. Yaseen, Nada H. Aljarba, Hadeel Almasoud, Bashayer Aljuhani, Alhanof Alhenaky and Saad Alkahtan (2024).

Cigarette smoke modulates methylation levels of LEF1-AS1 and impedes its expression: An experimental study. **Bader O Almutairi**, Ahmed Rady, Bashayer Aljuhani, and Mikhliid H. Almutairi (2025).

Enhancing hepatocellular carcinoma treatment: synergistic cytotoxicity and mechanistic insights of Ramucirumab and 5-Azacytidine combination therapy. Hadeel Almasoud · Fares A. Alzahrani · Saud Alarifi · Badr Aldahmash · **Bader Almutairi** · Abdullah A. AlKahtane · Khadijah N. Yaseen · Bashayer Aljuhani · Saad Alkahtani (2025).

Assessment of Photo Apoptotic and Genotoxicity of Nalidixic Acid on the Mouse Fibroblast Cell Line Under Ambient Environmental Intensity of UV-B Irradiation. Daoud Ali, **Bader O. Almutairi**, Anis Ahmed, Mohammed H. Almarzoug, Saud Alarifi, and Saad Alkahtani (2025).

Utilizing of Seaweed for Eco-friendly Synthesis of Nickel Cobalt Nanoparticles and Assessment of its Cytotoxic Effects on Human Liver and Colon Cancer Cells. Eman A. Alanazy, Daoud Ali, Mohammed H. A. Almarzoug, Khadijah N. Yaseen, **Bader O. Almutairi**, Saad Alkahtani, Badr A. Aldahmash, and Saud Alarifi (2025).

Patients with colon cancer exhibited greater TEX19 expression, controlled in vitro by epigenetic inhibitors. Mikhliid H. Almutairi; Ahmad S. Alkhaldi; Turki M.

Alrubie; Waad A. Alsoraie; Jilani P. Shaik; Abdullah M. Alamri; Mohammad Alanazi; Saad H. Alkahtani; **Bader O. Almutairi** (2025).

Eco-friendly production of silver-copper nanoparticles using coconut husk and evaluation of its anti-cancer properties on human breast cancer (MDA-MB-231) cell line. Atheer M Asiri, Daoud Ali, Nawal Alamalahi, Mohammed H A Almarzoug, **Bader Almutairi**, Saad Hussin Alkahtani, Badr A Aldahmash and Saud Alarifi (2025).