

HOMOOD MOQBEL R AS SOBEAI

Business Address:

King Saud University
P.O. Box 2457
Riyadh, Saudi Arabia 11454

Business email: hassobeai@ksu.edu.sa**Business Phone:** +966114677212**Cell Phone:** +966555443415

PROFESSIONAL EXPERIENCES

(16/2/2022 – Current)

- Vice Dean of Graduate Studies and Scientific Research, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.

(30/5/2022 – Current)

- Associate Professor of Pharmacogenomics and Cancer Genomics, Pharmacology and Toxicology Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.

(27/3/2022 – 7/1/2023)

- Acting Dean, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.

(30/10/2017 – 30/5/2022)

- Assistant Professor of Pharmacogenomics and Cancer Genomics, Pharmacology and Toxicology Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.

(5/1/2020 – 2/6/2021)

- Director of Graduate Programs, Pharmacology and Toxicology Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.

(23/5/2009 – 31/10/2017)

- Teaching Assistant, Pharmacology and Toxicology Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.

(22/8/2011 – 6/12/2013)

- Teaching Assistant, College of Pharmacy, Nova Southeastern University, Fort Lauderdale, FL, USA.

(18/2/2009 – 20/5/2009)

- Pharmacist, Outpatient Pharmacy, King Abdulaziz Medical City at National Guard, Riyadh, Saudi Arabia.

EDUCATION:

(2011-2017)

- Doctor of Philosophy in Pharmaceutical Sciences, Molecular Medicine and Pharmacogenomics, College of Pharmacy, Nova Southeastern University, Fort Lauderdale, FL, USA.

(2003 - 2009)

- Bachelor's degree in Pharmaceutical Sciences, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.

TEACHING EXPERIENCES:

- Principles of Pharmacogenomics (PHRM 223) (16/1/2022-Current)
 - Program: Doctor of Pharmacy, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia
 - Role: course instructor
 - Description: This course introduces students to the principles of pharmacogenomics, protein and nucleic acids synthesis, regulations, functions, and their crucial roles in normal and pathological functions. It demonstrates the implementation of these concepts and discusses associated challenges in clinical practice.
- Pharmaceutical Biotechnology II (PHT 437) (17/1/2021-Current)
 - Program: Doctor of Pharmacy, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia
 - Role: course instructor
 - Description: This course discusses the principles of various biotechnology techniques and their application in pharmacy-related fields.
- Pharmacometrics (PHL 541) (20/1/18-Current)
 - Program: Master in Pharmacology/Toxicology, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia
 - Role: course coordinator
 - Description: The course deals with the integrated principles and practices of biostatistics as applied to pharmaceutical sciences research. The course covers descriptive and inferential statistics. Topics include measures of central tendency and dispersion, probability distribution, parametric, and non-parametric statistical tests.
- Physiological Chemistry (PHL 551) (20/1/18-Current)
 - Program: Master in Pharmacology/Toxicology, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia
 - Role: course coordinator
 - Description: A comprehensive study of basic aspects of physiological chemistry that are most relevant to biology and medicine. Among the topics to be covered are biomembranes, immunology, biochemistry of endocrine glands, and structure of the genetic material and regulation of metabolic pathways.
- Pharmaceutical Research Methods (EDRA 513) (6/1/2022-Current)
 - Program: Executive Master in Drug Regulatory Affairs, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia
 - Role: course instructor
 - Description: This course aims to introduce biostatistics concepts and research methodology necessary for the interpretation, evaluation, and communication of pharmaceutical research. It also seeks to understand the fundamental concepts of developing a research project by careful planning, execution, data collection, and analyzing the data for statistical significance.
- Laboratory Rotation (1) (PHL 618) (21/1/2018-Current)
 - Program: Doctor of Philosophy in Pharmacology and Toxicology, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia
 - Role: course instructor

- Description: This course exposes students to various laboratory research techniques and models established in Pharmacology and Toxicology or related fields.
- Laboratory Rotations (PHL 591) (19/1/2020-Current)
 - Program: Master in Pharmacology/Toxicology, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia
 - Role: course instructor/coordinator
 - Description: Laboratory rotations are the core of the course. Student are required to finish three laboratory rotations in the semester. Each rotation cycle is four weeks. The number of hours per week should not be less than 3 hours and not more than 12 hours.
- Molecular and Cellular Toxicology (PHL 635) (2/9/2018-Current)
 - Program: Doctor of Philosophy in Pharmacology and Toxicology, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia
 - Role: course coordinator
 - Description: The course focuses on studying the molecular and cellular mechanisms by which pharmaceutical drugs and toxins mediate their toxicological effects. The course discusses cutting-edge research tools commonly used in the field of molecular and cellular toxicology. Among the topics covered are: oxidative stress and its consequences, mechanisms of cell death, and carcinogenesis.
- Risk Assessment and Regulation (PHL 627) (17/1/2021-28/4/2021)
 - Program: Doctor of Philosophy in Pharmacology and Toxicology, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia
 - Role: course coordinator
 - Description: This course deals with: the systematic scientific characterization of potential adverse health effects resulting from human exposure to hazardous agents; the principles of risk analysis, including risk assessment, uncertainty analysis, risk perception, risk communication and risk management, with emphasis on exposure measurement, epidemiology, human toxicology and ecotoxicology; laws and regulatory policy.
- Pharmacological Screening (PHL 542) (19/1/2020-6/5/2020)
 - Program: Master in Toxicology, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia
 - Role: course instructor
 - Description: This course teaches how to screen for pharmacological and toxicological actions using various cell lines and experimental animal models.
- Pharmacology (4) (PHL 425) (20/1/2018-2/1/2020)
 - Program: Bachelor in Pharmaceutical Sciences, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia
 - Role: course instructor
 - Description: This course focuses on pharmacological aspects (mechanisms of actions, interactions, adverse effects, etc.) of various drug classes used to treat skin disorders, endocrine diseases, and cancer.
- Pharmacology and Therapeutics (PHRM 326) (1/9/2019-31/12/2020)
 - Program: Bachelor in Pharmaceutical Sciences, College of Pharmacy, Riyadh Elm University, Riyadh, Saudi Arabia
 - Role: course coordinator

- Description: This course provides students with substantive knowledge about the actions and uses of important drugs. It explains the mechanism of action of drugs at the molecular, cellular and tissue level and provides an alternative environment for the learning of selected topics in basic and systematic pharmacology.
- Pharmacology and Drug Bio-Evaluation (PHRM 416) (1/9/2019-31/12/2020)
 - Program: Bachelor in Pharmaceutical Sciences, College of Pharmacy, Riyadh Elm University, Riyadh, Saudi Arabia
 - Role: course coordinator
 - Description: The course introduces the student to the pharmacological aspects of cancer chemotherapy, analgesics, anti-inflammatory, CNS, endocrine, and gastrointestinal drugs.
- Biochemistry (1) (BIOC 201) (20/1/2018-14/5/2018)
 - Program: Doctor of Pharmacy, College of Pharmacy, Almaarefa University, Riyadh, Saudi Arabia
 - Role: course instructor
 - Description: This course covers the following topics in biochemistry: The structures and function of carbohydrates, amino acids and proteins, lipids, enzymes, nucleic acids and vitamins. Clinical correlations and the action of certain therapeutic as well as toxic agents are explained whenever possible.
- Biochemistry (2) (BIOC 202) (20/1/2018-14/5/2018)
 - Program: Doctor of Pharmacy, College of Pharmacy, Almaarefa University, Riyadh, Saudi Arabia
 - Role: course instructor
 - Description: This course covers the fundamental structure of amino acids, proteins, enzymes, carbohydrates, lipids, and vitamins
- Biochemistry (BIOC 200) (20/1/2018-14/5/2018)
 - Program: Bachelor in Nursing, College of Applied Sciences, Almaarefa University, Riyadh, Saudi Arabia
 - Role: course instructor
 - Description: The course focuses on the structures and functions of protein, lipid, carbohydrates, vitamins, enzymes, nucleic acids, and an overview of the metabolisms of carbohydrates.

ADMINISTRATIVE EXPERIENCES:

- Chair, Postgraduate pharmacy programs advisory committee, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (1/3/2022-Current).
- Member, executive master program committee, Deanship of Graduate Studies, King Saud University, Riyadh, Saudi Arabia (7/12/2022-current).
- Member, scientific committee of the oriented research publishing support program, Deanship of scientific research, King Saud University, Riyadh, Saudi Arabia (20/7/2023-current).
- Member, College council, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (7/1/2023-current).
- Member, Pharmacology and Toxicology Departmental council, Pharmacology and Toxicology Departmental College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (31/10/2017-current).
- Member, business unit advisory committee, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (13/12/2022-Current).

- Member, College strategic planning committee, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (29/8/2021-Current).
- Chair, College council, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (27/3/2022-7/1/2023).
- Member, University council, King Saud University, Riyadh, Saudi Arabia (27/3/2022-7/1/2023).
- Member, King Saud University Medical City executive board, King Saud University, Riyadh, Saudi Arabia (27/3/2022-7/1/2023).
- Member, Quarter system transition executive committee, King Saud University, Riyadh, Saudi Arabia (27/3/2022-7/1/2023).
- Member, Medical residency and fellowship guidelines committee, King Saud University, Riyadh, Saudi Arabia (27/3/2022-7/1/2023).
- Member, Graduate student affairs committee, Pharmacology and Toxicology Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (29/8/2021-8/6/2022).
- Member, Postgraduate pharmacy education Center guidelines and procedures committee, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (1/2/2021-8/6/2022).
- Member, Graduate proposal and thesis committee, Pharmacology and Toxicology Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (29/8/2020-8/6/2022).
- Chair, Graduate advisory committee, Pharmacology and Toxicology Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (28/8/2020-2/6/2021).
- Member, Graduate admission committee, Pharmacology and Toxicology Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (28/8/2020-2/6/2021).
- Member, Academic Assessment committee, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (4/11/2019-10/6/2020).
- Member, Fellowship programs committee, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (1/9/2019-10/6/2020).
- Member, Faculty recruitment committee, Pharmacology and Toxicology Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (1/9/2019-2/6/2021).
- Chair, Graduate admission committee, Pharmacology and Toxicology Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (1/9/2019-10/6/2020).
- Chair, Graduate proposal and thesis committee, Pharmacology and Toxicology Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (2/9/2018-16/6/2020).
- Member, College's student proposals evaluation committee, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (2/9/2018-16/6/2020).
- Member, Graduate curriculum development committee, Pharmacology and Toxicology Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (2/9/2018-16/6/2020).

- Grant reviewer, Ph.D. Graduate Pharmacy Association (PGPA), College of Pharmacy, Nova Southeastern University, Fort Lauderdale, FL, USA (2016-2017).
- Secretary, Ph.D. Graduate Pharmacy Association (PGPA), College of Pharmacy, Nova Southeastern University, Fort Lauderdale, FL, USA (2015-2016).

RESEARCH GRANTS:

- Role of DNA repair and immune check point genes in the recurrence of lymphoblastic leukemia and colon cancer patients.
(1/5/2023-31/12/2023)
 - Role: Primary investigator
 - Funder: Oriented Research Publishing Support Program, Deanship of Graduate Studies and Scientific Research at King Saud University, Riyadh, Saudi Arabia
 - Total fund: upto 40,000 SAR/publication
- Role of two-pore channels (TPCs) in breast and colon cancer tumorigenesis and metastasis: A case study of TPC genetic variations in the Saudi population.
(15/6/2022-15/6/2023)
 - Role: Co-Primary investigator
 - Funder: Institutional funding program for research and innovation, Deanship of Graduate Studies and Scientific Research at King Saud University, Riyadh, Saudi Arabia
 - Total fund: 420,000 SAR
- Circulating miRNAs as diagnostic and prognostic biomarkers for detecting and monitoring colorectal cancer in Saudi patients.
(15/6/2022-15/6/2023)
 - Role: Co-Primary investigator
 - Funder: Institutional funding program for research and innovation, Deanship of Graduate Studies and Scientific Research at King Saud University, Riyadh, Saudi Arabia
 - Total fund: 300,000 SAR
- Screening for novel anticancer gold complex agents (#Grant: RG-1441-496)
(26/4/2020-26/4/2022)
 - Role: Primary investigator
 - Funder: Deanship of Graduate studies and scientific research at King Saud University, Riyadh, Saudi Arabia
 - Total fund: 150,000 SAR
- Targeting therapy-induced senescence: a novel therapeutic approach in breast cancer treatment (#Grant: DRI-KSU-1273)
(20/10/2019-20/10/2022)
 - Role: Co-primary investigator
 - Funder: Deputyship for Research and Innovation, Ministry of Education, Saudi Arabia
 - Total fund: 1,800,000 SAR
- Targeting nucleotide excision repair-induced chemotherapy resistance with miR-143 in MDA-MB-231.
(9/7/2019-9/7/2020)
 - Role: Primary investigator
 - Funder: Undergraduate Research Support Program, Deanship of Graduate studies and scientific research at King Saud University, Riyadh, Saudi Arabia.

- Total fund: 10,000 SAR
- Persistently elevated somatic mutation as a biomarker of clinically relevant exposures in Gulf War illness.
(2016-2019)
 - Role: Graduate student
 - Funder: Gulf War Illness Research Program, Congressionally-Directed Medical Research Program, Department of Defense, USA.
 - Total fund: \$581,848
- Targeting African American and Ashkenazi Jewish triple-negative breast cancers.
(2015-2016)
 - Role: Graduate student
 - Funder: President's Fund for Research and Development, Nova Southeastern University, Florida, USA.
 - Total fund: \$15,000
- Establishment of a Tissue Bank and Live Cell Bank for Breast cancers from Disparate Populations.
(2015-2016)
 - Role: Graduate student
 - Funder: AutoNation, Florida, USA.
 - Total fund: \$2,000,000
- The role of DNA repair in childhood leukemia relapse.
(2015-2016)
 - Role: Graduate student
 - Funder: Children's Leukemia Research Association, New York, USA
 - Total fund: \$20,000
- Detailed molecular profiling of sporadic stage I breast cancer.
(2014-2015)
 - Role: Graduate student
 - Funder: President's Fund for Research and Development, Nova Southeastern University, Florida, USA.
 - Total fund: \$15,000
- The role of DNA repair, genomic instability and stem cells in leukemia relapse
(2012-2014)
 - Role: Graduate student
 - Funder: Children's Leukemia Research Association, New York, USA
 - Total fund: \$30,000
- Human breast tissue engineering model for environmental chemical assessment
(2012-2014)
 - Role: Graduate student
 - Funder: Florida Breast Cancer Foundation, Florida, USA.
 - Total fund: \$100,000
- Molecular mechanism of DNA repair deficiency in breast cancer
(2012-2014)
 - Role: Graduate student
 - Funder: President's Fund for Research and Development, Nova Southeastern University, Florida, USA.
 - Total fund: \$10,000

PUBLICATIONS:

- Alsaleh NB, Assiri MA, Aljarbou AM, Almutairi MM, **As Sobeai HM**, Alshamrani AA, Almudimeegh S. Adverse Responses following Exposure to Subtoxic Concentrations of Zinc Oxide and Nickle Oxide Nanoparticles in the Raw 264.7 Cells. *Toxics* 2023 Aug, 11(8), 674.
<https://doi.org/10.3390/toxics11080674>
- Alanazi AZ, Al-Rejaie SS, Ahmed MM, Alhazzani K, Alhosaini K, **As Sobeai HM**, Alsanea Sary, Alam P, Almarfadi OM, Alqahtani AS, Alhamed AS, Alqinyah M, Alhamami HN, Almutery MF, Mohany M. Protective role of Dodonaea viscosa extract against streptozotocin-induced hepatotoxicity and nephrotoxicity in rats. *Saudi Pharm. J.* 2023 Aug; 31 (2023) 101669.
<https://doi.org/10.1016/j.jsps.2023.06.002>
- Jarallah SJ, Aldossary AM, Tawfik EA, Altamimi RM, Alsharif WK, Alzahrani NM, **As Sobeai HM**, Qamar W, Alfahad AJ, Alshabibi MA, Alqahtani SH, Alshehri AA, Almughem FA. GL67 lipid-based liposomal formulation for efficient siRNA delivery into human lung cancer cells. *Saudi Pharm. J.* 2023 July;31 (2023) 1139–1148.
<https://pubmed.ncbi.nlm.nih.gov/37273265/>
- *Sulaiman AAA, ***As Sobeai HM**, Aldawood E, Abogosh A, Alhazzani K, Alotaibi MR, Ahmad S, Alhoshani A, Isab AA. In vitro and in vivo antitumor studies of potential anticancer agents of platinum(II) complexes of dicyclopentadiene and dithiocarbamates. *Metallomics* 2022 Aug;14(8):mfac054.
<https://pubmed.ncbi.nlm.nih.gov/35869976/> *Shared first author
- Saleh T, **As Sobeai HM**, Alhoshani A, Alhazzani K, Almutairi MM, Alotaibi MR. Effect of autophagy inhibitors on radiosensitivity in DNA repair-proficient and-deficient glioma cells. *Medicina.* 2022 Jul; 58(6) 889.
<https://pubmed.ncbi.nlm.nih.gov/35888608/>
- *Alhamhoom Y, ***As Sobeai HM**, Alsanea S, Alhoshani A. Aptamer-based therapy for targeting key mediators of cancer metastasis(Review). *Int J Oncol.* 2022 Jun; 60(6):1-15.
<https://pubmed.ncbi.nlm.nih.gov/35425991/> *Shared first author
- Alanazi FE, **As Sobeai HM**, Alhazzani K, Al-Dhfyhan A, Alshammari MA, Alotaibi MR, Al-hosaini K, Korashy HM, Alhoshani AR. Metformin attenuates V-domain Ig Suppressor of T-cell Activation Through the Aryl Hydrocarbon Receptor Pathway in Melanoma: in vivo and in vitro studies. *Saudi Pharm. J.* 2022 Feb; 30(2)138-149.
<https://doi.org/10.1016/j.jsps.2021.12.014>
- **As Sobeai HM**, Alohaydib M, Alhoshani AR, Alhazzani K, Almutairi MM, Saleh T, Gewirtz DA, Alotiabi MR. Sorafenib, rapamycin, and venetoclax attenuate doxorubicin-induced senescence and promote apoptosis in HCT116 cells. *Saudi Pharm. J.* 2022 Jan; 30(1)91-101.
<https://doi.org/10.1016/j.jsps.2021.12.004>
- Abogosh AK, Ahmad S, Al-Asmari A, **As Sobeai HM**, Sulaiman AAA, Fettouchi M, Popoola SA, Alhoshani AR, Isab AA. A Novel Cyclic Dinuclear Gold(I) Complex Induces Anticancer Activity via Oxidative Stress-Mediated Intrinsic Apoptotic Pathway in MDA-MB231 Cancer Cells. *Dalton Trans.* 2022 Jan; 51(7)2760-2769.
<https://pubs.rsc.org/en/content/articlehtml/2022/dt/d1dt03546k>

- Alhoshani A, Alotaibi M, **As Sobeai HM**, Alharbi N, Alhazzani K, Al-Dhfyhan A, Alanazi FE, Korashy HM. In vivo and in vitro studies evaluating the chemopreventive effect of metformin on the aryl hydrocarbon receptor-mediated breast carcinogenesis. *Saudi J Biol Sci*. 2021 Dec; 28(12)7396-7403. <https://www.sciencedirect.com/science/article/pii/S1319562X21007403>
- Alhazzani K, Alotaibi MR, Alotaibi FN, Aljerian K, **As Sobeai HM**, Alhoshani AR, Alanazi AZ, Alanazi WA, Alswayyed M. Protective effect of valsartan against doxorubicin-induced cardiotoxicity: Histopathology and metabolomics in vivo study. *J Biochem Mol Toxicol*. 2021 Jul; e22842 <https://doi.org/10.1002/jbt.22842>
- Alhoshani AR, Sulaiman AA, **As Sobeai HM**, Qamar W, Alotiabi MR, Alhazzani K, Monim-ul-Mehboob M, Ahmad S, Isab AA. Anticancer Activity and Apoptosis Induction of Gold (III) Complexes Containing 2, 2'-Bipyridine-3, 3'-dicarboxylic Acid and Dithiocarbamates. *Molecules*. 2021 Jul; 26(13) 3973. <https://doi.org/10.3390/molecules26133973>
- **As Sobeai HM**, Sulaiman AA, Ahmad S, Shaikh A, Sulaimon R, Alotiabi MR, AlZoghaibi F, Altoum AO, Isab AA, Alhoshani AR. Synthesis, characterization, and miRNA-mediated PI3K suppressing activity of novel cisplatin-derived complexes of selenones. *Arab. J. Chem*. 2021 Jul; 14(7); 103245. <https://doi.org/10.1016/j.arabjc.2021.103245>
- Nadeem A, Ahmad SF, Al-Harbi NO, Al-Ayadhi LY, Attia SM, Alasmari AF, **As Sobeai HM**, Bakheet SA. Ubiquitous plasticizer, Di-(2-ethylhexyl) phthalate enhances existing inflammatory profile in monocytes of children with autism. *Toxicology*. 2020 Dec; 446(15); 152597. <https://doi.org/10.1016/j.tox.2020.152597>
- Attia SM, Ahmad SF, Nadeem A, Attia MS, Ansari MA, **As Sobeai HM**, Al-Mazroua HA, Alasmari AF, Bakheet SA. 3-Aminobenzamide alleviates elevated DNA damage and DNA methylation in a BTBR T+ Itpr3tf/J mouse model of autism by enhancing repair gene expression. *Pharmacol. Biochem. Behav*. 199; 2020 Dec; 173057. <https://doi.org/10.1016/j.pbb.2020.173057>
- Nadeem A, Ahmad SF, Al-Harbi NO, Ibrahim KE, Alqahtani F, **As Sobeai HM**, Alotaibi MR. Inhibition of interleukin-2-inducible T-cell kinase causes reduction in imiquimod-induced psoriasiform inflammation through reduction of Th17 cells and enhancement of Treg cells in mice. *Biochimie*. 179; 2020 Dec; 146-156. <https://doi.org/10.1016/j.biochi.2020.09.023>
- Sulaiman AA, Zierkiewicz W, Michalczyk M, Malik-Gajewska M, Ahmad S, Alhoshani A, **As Sobeai HM**, Bienko D, Isab AA. Synthesis, characterization, DFT optimization and anticancer evaluation of phosphane-gold(I) dithiocarbamates. *J Mol. Struct*. 2020 Oct; 1218: 128486. <https://www.sciencedirect.com/science/article/abs/pii/S0022286020308115>
- Al-Harbi NO, Nadeem A, Ahmed SF, Al-Ayadhi LY, Al-Harbi MM, **As Sobeai HM**, Ibrahim KE, Bakheet SA. Elevated expression of toll-like receptor 4 is associated with NADPH oxidase-induced oxidative stress in B cells of children with autism. *Int. Immunopharmacol*. 2020 Jul; 84: 106555. <https://pubmed.ncbi.nlm.nih.gov/32388012/>
- Sulaiman AA, Alhoshani A, **As Sobeai HM**, Alghanem M, Abogosh AK, Ahmed S, Altaf M, Monim-ul-Mehboob M, Stoeckli-Evans H, Isab AA. Anticancer activity and

X-ray structure determination of gold(I) complexes of 2-(diphenylphosphanyl)-1-aminocyclohexane. *Polyhedron*. 2020 June; 183: 114532.

<https://www.sciencedirect.com/science/article/abs/pii/S0277538720301893>

- Alasmari AF, Ali N, Alasmari FF, Alanazi WA, Alshammari MA, Alharbi NO, Alhoshani AR, **As Sobeai HM**, Alswayyed MM, Alghamdi NS. Liraglutide attenuates gefitinib-induced cardiotoxicity and promotes cardioprotection through the regulation of MAPK/NF-κB signaling pathways. *Saudi Pharm. J.* 2020 Apr; 28(4): 509-518.
<https://pubmed.ncbi.nlm.nih.gov/32273812/>
- Alotaibi MR, **As Sobeai HM**, Alaqil FA, Alhoshani AR, Almutairi MM, Alhazzani K, Sulaiman A, Isab A, Alotaibi N. A Newly Synthesized platinum-based Compound (PBC-II) Increases Chemo-sensitivity of HeLa Ovarian Cancer Cells Via Inhibition of Autophagy. *Saudi Pharm. J.* 2019 Dec; 27(8): 1203–1209.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6921179/>
- Ahmad SF, Nadeem A, Ansari MA, Bakheet SA, Al-Mazroua HA, Khan MR, Alasmari AF, Alanazi WA, **As Sobeai HM**, Attia SM. The histamine-4 receptor antagonist JNJ7777120 prevents immune abnormalities by inhibiting RORγt/T-bet transcription factor signaling pathways in BTBR T⁺ Itpr3^{tf}/J mice exposed to gamma rays. *Mol. Immunol.* 2019 Oct;114:561-570.
<https://www.ncbi.nlm.nih.gov/pubmed/31522074>
- Ahmad SF, Ansari MA, Nadeem A, Bakheet SA, Alanazi AZ, Alsanea S, **As Sobeai HM**, Almutairi MM, Mahmood HM, Attia SM. The Stat3 inhibitor, S3I-201, downregulates lymphocyte activation markers, chemokine receptors, and inflammatory cytokines in the BTBR T⁺ Itpr3^{tf}/J mouse model of autism. *Brain Res. Bull.* 2019 Oct; 152:27-34.
<https://www.ncbi.nlm.nih.gov/pubmed/31299319>
- Al-Hamamaha MA, Alotaibia MR, Ahmada SF, Ansaria MA, Attia MS, Nadeem A., Bakheet SA, **As Sobeai HM**, Attia SM. Genetic and epigenetic alterations induced by the small-molecule panobinostat: A mechanistic study at the chromosome and gene levels. *DNA Repair (Amst)*. 2019 Jun; 78: 70-80.
<https://www.ncbi.nlm.nih.gov/pubmed/30978576>
- Al-Harbi NO, Imam F, Al-Harbi MM, Al-shabanah OA, Alotaibi MR, **As Sobeai HM**, Afzal M, Kazmi I, Al Rikabi AC. Rutin inhibits carfilzomib-induced oxidative stress and inflammation via the NOS-mediated NF-κB signaling pathway. *Inflammopharmacology*. 2019 Aug; 27(4): 817-827.
<https://www.ncbi.nlm.nih.gov/pubmed/30600471>
- Ibrahim OM*, **As Sobeai HM***, Grant SG, Latimer JJ. Nucleotide excision repair (NER) gene expression in childhood acute lymphocytic leukemia is a predictor of early relapse (2018) *BMC Medical Genomics*. 2018 Oct 30;11(1):95.
<https://doi.org/10.1186/s12920-018-0422-2> *Shared first author.

SCIENTIFIC ABSTRACTS:

- Rasheed MH, AlHusseini, Alhoshani AR, Alotiabi MR, **As Sobeai HM**. PVR expression and correlated clinical characteristics are predictors of Relapse in Colorectal Cancer Patients (2023). Presented at the 3rd Saudi Society of Clinical Pharmacy annual meeting, Saudi Commission for Health Specialties, Riyadh, Saudi Arabia.
- Rasheed MH, AlHusseini, **As Sobeai HM**. Genetic and epigenetic factors regulating immune checkpoints associated with relapse in colorectal cancer

patients (2023). Presented at the 12th College of Pharmacy Research Day, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.

- **As Sobeai HM**, Alhoshani AR, Alotiabi MR. Sensitization of poly (adribose) polymerase (PARP) inhibitors and radiation – induced senescent breast cancer cells by venetoclax (2023). Presented at the 47th Federal European Biochemical Society annual meeting, Tours, France.
- Alotaibi MR, Saleh T, Alotaibi F, **As Sobeai HM**, Alhazzani K, Alanazi A, Alotaibi F, Alhoshani AR. Senolytics: Novel therapeutic agents to target chemotherapy-induced-senescence in breast cancer cell lines (2023). Presented at the 47th Federal European Biochemical Society annual meeting, Tours, France.
- Saleh T, Softah A, Alhazzani K, **As Sobeai HM**, Alotaibi MR. Senolytic effect of navitoclax in breast cancer cells induced into senescence by radiation and PARP inhibition (2023). Presented at the 47th Federal European Biochemical Society annual meeting, Tours, France.
- Alanazi A, Alotaibi F, Alhoshani A, Alhazzani K, Alhoshani AR, **As Sobeai HM**, Alotaibi M. Senolytics: Novel Therapeutic Agents To Target Chemotherapy-Induced Senescence in Breast Cancer Cell Lines (2022). Presented at the 11th College of Pharmacy Research Day, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.
- Almubarak AA, Alotaibi FE, Alhoshani AR, Alotiabi MR, Alhazzani K, **As Sobeai HM**. Genetic and epigenetic biomarkers associated with early relapse in acute lymphoblastic leukemia: A Focused Bioinformatics Study on DNA Repair Genes (2022). Presented at 2022 annual meeting of Saudi Pharmaceutical society, Riyadh, Saudi Arabia.
- Alotaibi BJ, Alshahrani RS, Alkathiri MA, Alqasem AM, Alamri BN, Alhoshani AR, Alhazzani KA, **As Sobeai HM**. Low expression of immune checkpoint genes is significantly associated with early relapse in pediatric acute lymphoblastic leukemia (2021). Presented at 2021 annual meeting of American Association for Cancer Research, Online, The United States of America.
- Alamri B, Alqasem A, **As Sobeai HM**. miR-145-3p: A novel small therapeutic molecule to target colon carcinogenesis and chemotherapy resistance (2021). Presented at the 10th College of Pharmacy research day. College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.
- Alkathiri M, Alshahrani R, **As Sobeai HM**. miR-145-3p: A novel small therapeutic molecule to target breast carcinogenesis and chemotherapy resistance (2021). Presented at the 10th College of Pharmacy research day. College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.
- Alkahtani LA, Alwhaibi MM, Almomen AA, **As Sobeai HM**, Orfali RS. Is social media stress shortening our telomeres? (2021). Presented at the 10th College of Pharmacy research day. College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.
- Alotaibi BJ, **As Sobeai HM**. The clinical significance of NHEJ gene expression as a prognostic tool to predict early chemotherapy resistance in relapsed acute lymphoblastic leukemia patients (2020). Presented at 2020 annual meeting of Dubai International Pharmaceutical & Technology Conference & Exhibition, Dubai, United Arab of Emirates.
- **As Sobeai HM**, Johnson JM, Lalanne N, Ibrahim OM, Grant SG, Wenger SL, Latimer JJ. Nucleotide excision repair is elevated in commercially available late

stage breast cancer cell lines as compared to early stage explants (2016). Presented at Nova Southeastern University- Health Division research day, Fort Lauderdale, FL, The United States of America.

- Ibrahim OM, **As Sobeai HM**, Latimer JJ, Grant SG. Nucleotide excision repair (NER) in acute lymphoblastic leukemia (ALL) and a predictor of early relapse. (2016) Presented at Nova Southeastern University- Health Division research day, Fort Lauderdale, FL, The United States of America.
- **As Sobeai HM**, Johnson JM, Lalanne N, Ibrahim OM, Grant SG, Wenger SL, Latimer JJ. Nucleotide excision repair is elevated in stage IV commonly used breast cancer cell lines as compared to stage I breast tumor explants (2016). Presented at 2016 annual meeting of American Association Cancer Research (AACR), New Orleans, LA, The United States of America.
- Ibrahim OM, **As Sobeai HM**, Latimer JJ, Grant SG. Nucleotide excision repair gene expression in childhood acute lymphocytic leukemia is a predictor of early relapse (2016). Presented at 2016 annual meeting of American Association Cancer Research (AACR), New Orleans, LA, The United States of America.
- Grant SG, Ibrahim OM, **As Sobeai HM**, and Latimer JJ. Elevated gene expression of nucleotide excision repair genes upon relapse of acute lymphocytic leukemia (2014). Presented at Nova Southeastern University- Health Division research day, Fort Lauderdale, FL, The United States of America.
- **As Sobeai HM**, Ibrahim OM, Pimpley MR, Mboge MY., Seviven SN, Grant SG, Latimer JJ. Nucleotide Excision Repair Regulation may be mediated by miRNAs in Breast Cancer (2014). Presented at Nova Southeastern University- Health Division research day, Fort Lauderdale, FL, The United States of America.
- Ibrahim OM, **As Sobeai HM**, Thumar K, Roskos R, Grant SG, Latimer JJ. Nucleotide excision repair as a driving force in acute lymphocytic leukemia relapse (2013) . Presented at the 2013 annual meeting of the Florida Academy of Sciences, Miami Shores, FL, The United States of America. Florida Scientist 76(Supplement 1): 70–71.
- **As Sobeai HM**, Johnson JM, Ibrahim OM, Grant SG, Latimer JJ. DNA repair capacity in commercially available breast cancer cell lines compared to primary early breast tumor cultures (2013). Presented at the 2013 annual meeting of the Florida Academy of Sciences, Miami Shores, FL, The United States of America. Florida Scientist 76(Supplement 1): 67–68.
- Latimer JJ, Johnson JM, **As Sobeai HM**, Ibrahim OM, Kelly CM, Beaudry-Rodgers K, Kelley J, Johnson R, Amortegui A, Mock L, Grant SG. A new paradigm of sporadic breast cancer etiology (2013). Presented at the joint Keystone Symposia on DNA Replication and Recombination and Genetic Instability and DNA Repair, Banff, Canada.
- Grant SG, Ibrahim OM, **As Sobeai HM**, Rudolph R, Latimer, JJ. Nucleotide excision repair gene expression in acute lymphocytic leukemia relapse (2013). Presented at the joint Keystone Symposia on DNA Replication and Recombination and Genetic Instability and DNA Repair, Banff, Canada.

RESEARCH TECHNICAL SKILLS:

- Omics techniques: isolate, prepare, run, and analyze nucleic acid samples.
- Bioinformatics: run raw genomic data in R, analyze and interpret big genomic data, extract and analyze genomic data from publicly available genomic databases, screen miRNA target genes, perform pathway enrichment analyses.
- Gene expression modification: manipulate gene expression using RNA interference or miRNA transfection techniques.
- Cell culture: maintain cell lines in culture, isolate and culture primary cells
- In vitro testing: perform cytotoxicity studies, examine DNA repair/damage
- Flow cytometry: perform and analyze apoptosis and cell cycle experiments, characterize cellular and molecular biomarkers.
- qPCR: isolate, prepare, and run RNA and DNA samples for/on qPCR machines, analyze and interpret qPCR data.
- Western blotting: extract total protein from biological samples. Quantify protein expression using western immunoblotting.
- Writing research manuscripts: drafting manuscripts, drafting point to point response to reviewers, handling the logistics of paper submission.
- Writing research grants: generate research ideas, forming the research team, drafting research proposals, handling the logistics of grant submission.

SCIENTIFIC TALKS AND WORKSHOPS:

- Genomics Review (Nov 2022). Presented at College of Pharmacy, Almarefaa University, Riyadh, Saudi Arabia.
- Navigating Publicly-available Cancer Genomic Databases: An Ocean of Data That is a Click Away (Aug 2022). Presented at the 1st Saudi Oncology Research Society annual meeting, Dammam, Saudi Arabia.
- Masters and Ph.D. programs in pharmaceutical sciences (Mar 2021). Presented at the 2021 Pharmacy Career Day. King Saud University, Riyadh, Saudi Arabia.
- Hands-on Session in Bioinformatics: How to generate genomic data from hidden treasure sources (Jan 2021). Presented at The Genetic Revolution: Medical Applications Webinar. Pharmaceutical scientists Group, Saudi Pharmaceutical Society, Saudi Arabia.
- Pathways to success as a pharmacist: graduate pharmacy programs in Saudi Arabia (Oct 2020). Presented at King Saud University – University of California San Diego joint webinar.
- The advances of biopharmaceutical research in KSA (Nov 2019). Presented at the 2nd Arab International Pharmacy Congress, Riyadh, Saudi Arabia.
- Saudi Pharmacist Licensure Examination (SPLE): Recipe for Success (Nov 2019). Presented at College of Pharmacy, Jouf University, Jouf, Saudi Arabia.
- Clinical Pharmacogenomics: Saudi Pharmacist Licensure Examination (SPLE) Review (Nov 2019). Presented at College of Pharmacy, Jouf University, Jouf, Saudi Arabia.
- Clinical Pharmacogenomics: Saudi Pharmacist Licensure Examination (SPLE) Review (Jan 2019). Presented at College of Pharmacy, Riyadh El Elum University, Riyadh, Saudi Arabia.
- One size does not fit all – Pharmacogenomics: clinical research and applications (Jan 2019). Presented at the second annual meeting of Saudi International Pharmaceutical Sciences (SIPHA), Jeddah, Saudi Arabia.

- Targeting nucleotide excision repair with microRNAs: a novel therapeutic approach to overcome DNA repair-induced chemotherapy resistance (Dec 2018). Presented at advances in pharmacological research, American Association for Pharmaceutical Scientists, Saudi Discussion Chapter, Riyadh, Saudi Arabia.
- Targeting nucleotide excision repair with miR145: a novel therapeutic strategy to overcome chemotherapy resistance (Nov 2018). Presented at Advances in Breast Cancer Research: Towards Precision Therapy conference, King Faisal specialized hospital and research center, Riyadh, Saudi Arabia.
- Regulation of nucleotide excision repair by microRNAs: potential use to overcome DNA repair-induced chemotherapy resistance in breast cancer (Apr 2018). Presented at College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.
- Nucleotide excision repair is elevated in commercially available late stage breast cancer cell lines as compared to early stage explants (Feb 2016). Presented at Nova Southeastern University- Health Division research day, Fort Lauderdale, FL, USA.

STUDENT SUPERVISION:

- Noura Alayani, Ph.D's Student (8/20/2023-current)
 - Role: Primary supervisor
 - Project title: Sensitization of Senoresistant cancer cell lines to senolytics
- Lama ben Obaid, Ph.D's Student (24/10/2022-current)
 - Role: Secondary supervisor
 - Project title: Investigate the role of two-pore channels (TPC1/2) on proliferation, migration, and drug-resistance in vitro and in vivo colon cancer models
- Ibrahim Hamzi, master's Student (30/9/2022-current)
 - Role: Secondary supervisor
 - Project title: Chemo-sensitization of Doxorubicin-treated Breast Cancer Cells by Metal-containing Compounds
- Abrar Safta, Ph.D's Student (22/9/2020-current)
 - Role: Secondary supervisor
 - Project title: Studying senescence in breast cancer cells induced by treatment protocol poly ADP-ribose polymerase inhibitors and radiation aided by senolytics
 - Awards: 6th place for the best poster presentation at the 12th College of Pharmacy Research Day, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (2023).
- Abdulrahman Alanazi, Master's Student (7/12/2020-22/6/2023)
 - Role: Primary supervisor
 - Project title: Senolytics: novel therapeutic agents to target chemotherapy-induced senescence in breast cancer cell lines
 - Awards: 2nd place for the best poster presentation at the 11th College of Pharmacy Research Day, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (2022).
- Faisal Alotaibi, Master's Student (7/12/2020-22/6/2023)
 - Role: Secondary supervisor
 - Project title: Studying the effects of senolytics on therapy-induced senescence in breast cancer cells in vivo and in vitro

- Awards: 2nd place for the best poster presentation at the 11th College of Pharmacy Research Day, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (2022).
- Zaid AlHusseini and Muhammad Hamza Rushdi, PharmD Students (16/2/2022-22/6/2023)
 - Role: Primary supervisor
 - Project title: Genetic and epigenetic regulations of immune checkpoints in relapsed breast and colon cancer patients: emerging factors in chemo and radiotherapy efficacy
- Ali Almubarak and Faris Alotaibi, PharmD Students (30/1/2021-16/6/2022)
 - Role: Primary supervisor
 - Project title: Genetic and epigenetic biomarkers associated with early relapse in acute lymphoblastic leukemia: a focused bioinformatics study on DNA repair genes
 - Awards: 7th place for the best poster presentation at the 11th College of Pharmacy Research Day, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (2022).
- Munirah Alkathiri and Razan Alshahrani, PharmD Students (2/1/2020-23/5/2021)
 - Role: Primary supervisor
 - Project title: miR-145-3p: a novel small therapeutic molecule to target breast carcinogenesis and chemotherapy resistance
 - Awards: 11th place for the best poster presentation at the 10th College of Pharmacy Research Day, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (2021).
- Basil Alamri and Ali Alqasem, PharmD Students (2/1/2020-23/5/2021)
 - Role: Primary supervisor
 - Project title: miR-145-3p: a novel small therapeutic molecule to target colon carcinogenesis and chemotherapy resistance
 - Awards: 17th place for the best poster presentation at the 10th College of Pharmacy Research Day, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (2021).
- Layan Alqahtani, PharmD Students (2/1/2020-23/5/2021)
 - Role: Secondary supervisor
 - Project title: Is social media stress shortening our telomeres?
 - Awards: 3rd place for the best poster presentation at the 10th College of Pharmacy Research Day, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia (2021).
- Basil Alotaibi, PharmD Students (21/8/2019-23/5/2021)
 - Role: Primary supervisor
 - Project title 1: Targeting nucleotide excision repair-induced chemotherapy resistance with miR-143 in MDA-MB-231
 - Project title 2: Low expression of immune checkpoint genes is significantly associated with early relapse in pediatric acute lymphoblastic leukemia
 - Awards: funded by Undergraduate Research Support Program, Deanship of Graduate studies and scientific research, King Saud University (Total fund: 10,000 SAR – 2019).

- Mohammed Alzahrani, Master's Student (6/1/2019-29/4/2021)
 - Role: Secondary supervisor
 - Project title: In vitro synergistic activities and cytotoxicities of colistin-based drug combinations against colistin-resistant Enterobacteriaceae clinical isolates in Saudi Arabia
- Munirah Alohaydib, Master's Student (1/9/2018-29/12/2019)
 - Role: Secondary supervisor
 - Project title: Studying the effects of prevention of doxorubicin-induced senescence in human colon cancer HCT116 cells

PROFESSIONAL SOCIETIES:

- Member, Saudi Pharmaceutical Society (SPS), Riyadh, Saudi Arabia. (2019-current)
- Member, American Association for Pharmaceutical Scientists, Saudi Discussion Chapter, Riyadh, Saudi Arabia. (2018-current)
- Member, American Association for Cancer Research (AACR), Philadelphia, PA, USA. (2015-current)
- Member, Rho Chi Society (the academic honor society in pharmacy), College of Pharmacy, Nova Southeastern University, Fort Lauderdale, FL, USA. (2013-2017)