

Curriculum Vitae

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Objective:

A medicinal chemist and molecular biologist with a deep knowledge in the genetics, biochemistry, enzymology and chemical biology of the pseudoglycosyltransferases (PsGTs) which plays an important role in the biosynthesis of antivirals, antidiabetic and antimicrobial agents. I have experience in the synthesis and exploring of new drugs, deciphering the secondary metabolism of many *Streptomyces* species, genetic engineering strategies for producing carbohydrate mimetic, redesigning glycoconjugates, and creating new bioactive natural products. Moreover, I am leading a team of researcher focusing on cardiovascular, autism, diabetes, cancer and infectious diseases projects. I am the principal investigator of many funded projects with a total fund of 2 and half million S.R.. I am assistant professor of medicinal chemistry at Department of Pharmaceutical Chemistry, College of Pharmacy, King Saud University. Associate Editor of the Saudi Pharmaceutical Journal. Excellent in utilizing all my skills in organization development, manage and participate in the curriculum review projects, critical thinking, data analysis, presentation of scientific results written and verbal. I am a father, teacher, researcher and team leader of research group with a passion for challenging projects.

Qualifications:

Ph.D. degree in Pharmacy, Medicinal Chemistry, Molecular Biology Track, College of Pharmacy, Oregon State University, 2015, **Excellent (Honor degree)**.
B.Sc. Pharm degree, College of Pharmacy, King Saud University, Clinical Pharmacy Track, 2007, **Excellent (Honor degree)**.
High School: Al-Faisalya Secondary School, Science Section, (**Excellent, average 99.53%**)

Professional Appointments:

(January/2017-present) Consultant of the CEO-Saudi Food and Drug Authority, Riyadh, Saudi Arabia.

Responsibilities include:

- Oversees the labs analytical services.
- Lead research projects in exploring and development of drug and food sectors.
- Coordinate the training of the laboratory technicians to be qualified to independently operating the instruments and apply the experiments.

- Develop and implement a plan to cultivate new practice experience sites and promote the SFDA services quality.
- Participate in planning and ideas generation for new initiatives.
- Coordinate the international collaborations plans and visits.
- Oversees the International collaborations processes and agreements.

(March/2016-March/2017) Director of College of Pharmacy Central Lab, King Saud University, Riyadh, Saudi Arabia.

Central Lab is Avant-grade research equipment (worth of 35 million S.R.) facility operated by expert scientists and technicians to support the college by providing interdisciplinary shared-user lab, and the research community through training and services. The central laboratory is composed of six core facilities including characterization, imaging, analytical chemistry, genomics, microbiology and biosciences.

Responsibilities include:

- Oversees the analytical services to researchers in KSU, outside-KSU and overseas.
- Coordinate with KSU-business office for all the college services.
- Coordinate the business development for all the college service units.
- Coordinate interdisciplinary research projects between colleges of pharmacy fellows within the central lab.
- Coordinate the analytical services for governmental and private sectors.
- Collaborate with stakeholders as research and development.
- Promote the research within the college by coordinating the research themes.
- Lead research projects in cardiovascular, diabetes, autism and exploring and development of drugs.
- Coordinate the training of the fellows, students and technicians to be qualified to independently operating the instruments.
- Develop and implement a plan to cultivate new practice experience sites and promote the research quality.
- Participate in planning and ideas generation for new initiatives at the College level.

- (March/2016-present) Director of College of Pharmacy Collaborations.

Responsibilities include:

- Conduct the college of pharmacy collaborations.
- Oversees the college of pharmacy MOU's.
- Oversight the MOU's application and evaluation.
- Coordinate between the university and the college to ensure meeting the strategic goals of the university.
- Coordinate between the college and the collaborators to apply the

terms of the MOU's.

Achievements while in position:

- MOU with Eli Lilly and company.
- MOU with Al-Nahdi medical company.
- MOU with University of Kuwait.
- MOU with Mayo Clinic.
- MOU with THE CSIR- Indian Institute of Chemical Technology.
- MOU with University of Alberta.

- (Sept./2016-present) PhD. Student Co-Advisor, Department of Pharmaceutical Chemistry, College of Pharmacy, King Saud University.
- (March/2016-present) Undergraduate Student Advisor, Department of Pharmaceutical Chemistry, College of Pharmacy, King Saud University.
- (October/2015-present) Leader of a research group for synthetic chemistry and molecular biology projects.
- (August/2015-present) Assistant professor of medicinal chemistry. Department of Pharmaceutical Chemistry, College of Pharmacy, King Saud University.

Experiences:

- (August/2015-present) Teaching medicinal chemistry advanced courses for PhD., PharmD. and Bachelor of Pharmaceutical sciences students (<http://faculty.ksu.edu.sa/Habuelizz>).
 - Member of Vaccines and Biologics Research Unit (**VBRU**) in college of pharmacy.
 - Chief organizer of the college of pharmacy seminars.
 - Member of curriculum committee board in college of pharmacy.
 - Rapporteur of exam committee board in college of pharmacy.
- (September/2009) **Graduate Research Assistant:** PhD. graduate student at Oregon State University, College of Pharmacy under supervision of Dr. Taifo Mahmud on research areas includes:
 - Understanding and exploiting biosynthetic pathways
 - Antiviral and antimycobacterium development
 - Enzyme mechanisms.
 - Sugar and pseudo-sugar organic synthesis.
 - Enzyme engineering and evolution.
 - Natural products discovery and bioprospecting.
- (April/2008) **Teaching Assistant:** Teaching Assistant of medicinal chemistry in Pharmaceutical Chemistry Department, College of Pharmacy, King Saud University.
- (January/2008) **Part Time Job:** in-charge pharmacist of the evening shift in the inpatient pharmacy of the main hospital in King Fahad Medical City under supervision of Dr. Osama Tabbara for eighteen months:

- Unite Dose.
- Discharge.
- Intravenous room.
- Chemo preparation
- (September/2007) **Internship:** King Faisal Specialist Hospital and Research Center in different areas for four months under supervision of Dr.Ahmad Al-Jedaie:
 - Compounding of intravenous, ophthalmic, and oral preparation in inpatient pharmacy of the oncology center.
 - Prepare the prescription in the system, filling, and patient counseling.
 - Presentation of the use of Argatroban in the treatment of Heparine Induce thrombocytopenia.
 - Journal Club under supervision of Dr. Abdulrazaq Al-Jazaeri
 - Literature evaluation of Prasugril versus Clopedogril.
- (July/2007) **Summer Training:** Eli Lilly Company for one month under supervision of Ayman Al-Helwa:
 - Marketing skills and methods of explanation.
 - Communication skills.
 - Medical rep. training program for institution hospitals and community pharmacies.
- (August/2006) **Summer Training:** Outpatient pharmacy of King Faisal Specialist Hospital and Research Center for one month under supervision of Dr.Ahmad Al-jedaie:
 - Compounding of intravenous, ophthalmic, and oral preparation.
 - Prepare the prescription in the system, filling, and patient counseling.
 - Presentation of Naproxen modification and development.

Awards:

- U.S. Patent 9,808,443 B1 of “ **New Cyclooxygenase “inhibitors”**. Nov, 2017
- Saudi Food and Drug Authority research center funding award of 300,000 SAR on the “**Vigilance for the emergence of antimicrobial resistance following long-term use of antibacterial hand washing products among Hajj pilgrims**“
- MERS-CoV fund award of 1,400,000 SAR on the “**Deciphering Genetic Susceptibility For Mers-Cov Infection**”. 2017
- New faculty fund award from the Deanship of Scientific Research Raed 5 70,000 SAR.
- Saudi Arabia, Ministry of Higher Education travel award, 2015.
- Oregon State university, college of pharmacy travel award, 2014

- Became a member of the **Rho Chi Society**, academic honor society in pharmacy, 2012.
- Podium presentation award in college of pharmacy retreat, Oregon State University, 2012.
- Best poster presentation award in college of pharmacy retreat, Oregon State University, 2011.
- Honor grade in my 1st, 2nd, 3rd and 5th years in College of Pharmacy, King Saud University.

Publications:

- Alhawassi, T. M.; Abuelizz, H. A. et. al., **Advancing Pharmaceuticals and Patient Safety in Saudi Arabia: A 2030 Vision Initiative**, *Saudi Pharmaceutical Journal* **2017**.
- Abuelizz, H. A. et. al., **Synthesis, crystallographic characterization, molecular docking and biological activity of isoquinoline derivatives**, *Chemistry Central Journal* **2017** 11 (1), 103
- Abuelizz, H. A. et. al., **Molecular modeling, enzyme activity, anti-inflammatory and antiarthritic activities of newly synthesized quinazoline derivatives**, *Future Medicinal Chemistry* **2017**
- Abuelizz, H. A. et. al., **Molecular Docking and Anticonvulsant Activity of Newly Synthesized Quinazoline Derivatives**, *Molecules* **2017** 22 (7), 1094
- Abuelizz, H. A. et. al., **Synthesis and anticancer activity of new quinazoline derivatives**, *Saudi Pharmaceutical Journal* **2017**
- Abuelizz, H. A. et. al., **Antimicrobial Activity of New 2-Thioxo-benzo [g]quinazolin-4 (3H)-one Derivatives**, *Medicinal Chemistry* **2017** 13 (1), 85-92
- Abuelizz, H. A. et. al., **Analysis of Trace Elements in Rat Bronchoalveolar Lavage Fluid by Inductively Coupled Plasma Mass Spectrometry**, *Biological trace element research* **2017**.
- Abuelizz, H. A. et. al., **Antimicrobial Activity of Synthesized 2-Methylthiobenzo [g][1, 2, 4]-triazolo [1, 5-a] quinazoline Derivatives**, *Medicinal Chemistry* **2016** 12 (8), 760-766
- Abuelizz, H. A. et. al., **Crystal structure of 3-(adamantan-1-yl)-1-[(4-benzylpiperazin-1-yl) methyl]-4-[(E)-(2, 6-difluorobenzylidene) amino]-1H-1, 2, 4-triazole-5 (4H)-thione, C₃₁H₃₆F₂N₆S**, *Zeitschrift für Kristallographie-New Crystal Structures* **2016**, 231 (3), 927-929

- Abuelizz, H. A. et. al., **Molecular docking study and antiviral evaluation of 2-thioxo-benzo [g] quinazolin-4 (3 H)-one derivatives**, *Chemistry Central Journal* **2016**, 10, 21
- Abuelizz, H. A. et. al., **Crystal Structure of 3-[[4-(2-methoxyphenyl)piperazin-1-yl]methyl]-5-(thiophen-2-yl)-2,3-dihydro-1,3,4-oxadiazole-2-thione**, *Acta Crystal. Sec. E: Crystal Comm* **2016**, 72, 269-272
- Abuelizz, H. A.; Mahmud, T., **Distinct Substrate Specificity and Catalytic Activity of the Pseudoglycosyltransferase VldE**, *Cell Chem Biol* **2015**, 22, 724.
- Abuelizz, H. A., **Mechanistic Studies and Catalytic Engineering of the Pseudoglycosyltransferase VldE**, Oregon State University
- Hatfull, G.F et. al., **Mycobacterium Phage Archie, Complete Genome**, *NCBI GenBank* **2015**, KT591489.1, GI:928541325.
- Hatfull, G.F et. al., **Mycobacterium Phage Sparky, Complete Genome**, *NCBI GenBank* **2014**, KM083128.1, GI:670142404.
- Hatfull, G.F et. al., **Mycobacterium Phage Sparky, Complete Genome**, *NCBI GenBank* **2014**, NC_026597.1, GI:764160820.
- Hatfull, G.F et. al., **Mycobacterium Phage Tiger, Complete Genome**, *NCBI GenBank* **2012**, JQ684677.1, GI:380886204.

Publications in progress:

- Abuelizz, H. A.; Alhoshani, A. R., **RNA Aptamer against DPP-4 Glycosylation Reveals a New Target for MERS-Cov Vaccine**, *PLOS one* (Manuscript in progress)
- Abuelizz, H. A.; Alhoshani, A. R., **Development, Screening, and Analysis of RNA Aptamer for Diagnosis and Passive Immunity of MERS-Cov**, *Nature Mol. Ther. Nucl. Acids* (Manuscript in progress)
- Abuelizz, H. A.; Alhoshani, A. R., Alhawasi, T.; Aljadhey, H., **Genetic Screening of Saudi Population Reveals Markers of MERS-Cov Susceptibility**, *Saudi Pharm. J.* (Manuscript in progress)
- Abuelizz, H. A.; Alsalahai, R., **New Quiazoline Derivatives as Tyrosin Kinase Inhibitor**, *PLOS one* (Manuscript in progress)
- Abuelizz, H. A.; Alburikan, K. A., **Drug-Gene Interactions of Cardiovascular Medications: A Pharmacogenomics Study from Saudi Genome Project**, *BMC Genet.* **2016** (Manuscript in progress)

Conferences and Symposiums:

I have presented a work and/or attended the following conferences and symposiums:

- MERS – COV Vaccine Development Workshop, 2015, Ministry of Health, King Abdulaziz City for Science and Technology (**KACST**), Riyadh, Saudi Arabia.
- Natural products discovery and development in the post genomic era, 2015, **poster presentation**, San Diego, CA., USA.
- Gordon Research Conference: Enzymes, Coenzymes & Metabolic Pathways, 2014, **Poster presentation**, Waterville Valley, NH., USA,
- ACS meeting, 2013, **poster presentation**, Oregon State University, Corvallis, OR, USA.
- CGRB conference, 2013, **poster presentation**, Oregon State University, Corvallis, OR, USA.
- Agriculture and Life Science poster session, 2014, **poster presentation**, Oregon State University, Corvallis, OR, USA.
- Volcano conference, 2012, **podium and poster presentation**, at Pack Forest, Eatonville, WA, USA.
- The Drug Interactions in the 21st Century from Herbals to Pharmaceutical, 2006, Riyadh, KSA.
- The 6th Saudi Pharmaceutical International Conference 2003 "Pharmacy Profession Towards Patient Care", Riyadh, KSA.
- The 9th International Pharmaceutical Conference & Exhibition, 2003, Riyadh, KSA.
- The COX-2 Inhibitors: New Drugs with Recent Concerns, 2003, Riyadh, KSA.
- The Pharmacy: A profession in Transition, 2002, Riyadh, KSA.

Other Experiences:

- Certificate in **Techniques in Molecular and Cellular Biology** from Oregon State University, Molecular and Cellular Biology Program, supervised by Barbara J. Taylor.
- Certificate in **Management and Human Resource Skills for Pharmacists** from Oregon State University, Professional and Noncredit Education, supervised by Chris LaBelle.

- Organizer and a member of the support committee for the Total Parenteral Nutrition Symposium held in King Fahd Medical City in 2008.
- Statistics Trainer in Novartis Company training program for the new employees about Bio-statistical Analysis and using of SPSS program.
- **B.L.S. (Basic Life Support)** certificate in Emergency, King Fahad Medical City by Saudi Heart Association, 2008.
- I have attended many workshops in marketing and basic leadership skills.
- Good on Window, Excel, Power Point, Access and good user of Database and Internet
- Good in Searching about Drug Information using Internet, Micromedix Program, IDIS Program, Chimera, PyMol, ChemDraw.
- Good knowledge of Statistical Analysis Program using SPSS.