Dr: Amany Ibrahim Mohammad Alqosaibi

Assistant Professor in Molecular Genetics and Gene Regulation

Personal Data

Nationality | Saudi

Date of Birth | 05/01/1980

Department | Biology

Official IAU Email lamgosaibi@iau.edu.sa

Office Phone No. | 009661333337298

ResearcherID	A-3379-2015
Scopus Authror ID	https://www.scopus.com/authid/detail.uri?authorld=57210147522
ORCID ID	https://orcid.org/0000-0001-8348-9451
Google Scholar link	https://scholar.google.com/citations?user=_zM9Q_EAAAAJ&hl=en_
linkedin	http://linkedin.com/in/dr-amany-alqosaibi-0657aa91

Language Proficiency

Language	Read	Write	Speak
Arabic	٧	٧	٧
English	٧	٧	٧

Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
2021	Fellowship	Imam Abdulrahman Bin Faisal University and	Saudi Arabia in
	(CLTHE)	Advance HE	collaboration with UK
2015	PhD	The University of Nottingham	United Kingdom
2009	Master	King Faisal University	Saudi Arabia
2002	Bachelor	Science College for girls	Saudi Arabia

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

NCBE	The national Committee of BioEthics at King Abdulaziz City for science and Technology (KACST), BIOETHIC TRANING COURSE , NO:10023084
Fellowship	The fast-track certificate in learning and teaching in higher education (CLTHE), Fellowship
PhD Post-Transcriptional Regulation in Telomere Position Effect in Yeast	

Maste	М	aste	
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Cytogenetical Studies of the Effects of Vitamins B6, Folic Acid and B12 Deficiencies on Bone Marrow Chromosomes in Male Albino Mice.

Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work	Date
Assistant professor	Biology department, College of science, Imam Abdulrahman Bin Faisal University (University of Dammam).	2016- present
Lecturer	Biology department, College of science, University of Dammam.	2010-2016
Demonstrator	Biology department, College of science University of Dammam.	2004-2010

Administrative Positions Held: (Beginning with the most recent)

Administrative Position	Office	Date
Head of Academic Programs Development Unit, College of Science	Academic Programs Development Unit, College of Science	2020-2021
Vice Dean of Admission and Registration for Female section	Vice Dean of Admission and Registration for Female section	2017- 2020

Scientific Achievements

Published Refereed Scientific Research

(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
1	Nagla Zaky Ibrahim El–Alfy, Mahmoud Fathy Mahmoud, Amany Ibrahim Alqosaibi and Sally Ramadan Gabr El-Ashry	Genotoxic Effect of Methotrexate on Bone Marrow Chromosomes and DNA of Male Albino Mice (Mus musculus)	The Egyptian Journal of Hospital Medicine,2016, (64) 350- 363
2	Nagla Zaky Ibrahim El –Alfy, Amany Ibrahim Alqosaibi, Mahmoud Fathy Mahmoud, and Sally Ramadan Gabr El-Ashry	An analysis of micronuclei and DNA damage induced by Methotrexate treatment in bone marrow of Male Albino Mice (Mus musculus)	The Egyptian Journal of Hospital Medicine,2016, (65) 504- 514
3	Mervat A. Ahmed, Amany I. Alqosaibi, Mona A. Mohamed and Maha G. Soliman	Evaluation of some cytokines and Gene expressions in pre-eclamptic	Pak. J. Biol. Sci., 22 (3): 148-153, 2019
4	Hussein Sabit, Emre Cevik, Huseyin Tombuloglu, Katrine Farag, Osama AM Said, Shaimaa E Abdel-Ghany, Amany I Alqosaibi, Huseyin Bekir Yildiz, Ferhad Serag ElDeen, Eman Wagih and Mokhtar El-Zawahri	miRNA Profiling in MCF-7 Breast Cancer Cells: Seeking a New Biomarker	J. Biomed. Sci, Vol.8 No.2:3, 2019

5	Hussein Sabit, Shaimaa Nazir, Shaimma Abdel-Ghany, Osama A Said, Eman W. Mohammed, Omnia M. Badawy, Ashraf El-zayyat, Amany I. Alqosaibi, Emre Cevik, Huseyin Tombuloglu, Mokhtar Elzawahri.	Poly (ADP-ribose) Polymerase Promoter Hypermethylation Predispose Females to Breast Cancer	Asian Pac J Cancer Biol, 3 (4), 105-109, 2018
6	Shaimaa E. Abdel-Ghany, Eman El- Sayed, Nour Ashraf, Nada Mokhtar, Amany Alqosaibi, Emre Cevik, Ayhan Bozkurt, Eman W. Mohamed, Hussein Sabit	Titanium Oxide Nanoparticles Improve the Chemotherapeutic Action of Erlotinib in Liver Cancer Cells	Current Cancer Therapy Reviews, Volume 16, 4 Issues, 2020
7	Hussein Sabit & Amany Alqosaibi	Book titled (CRISPR/Cas9 Revolutionizing the biological arena)	2020, published by Imam Abdulrahman bin Faisal University.
8	أماني القصيبي واخرون	"الدليل الاكاديمي"	جامعة الامام عبد الرحمن بن ه 1439فيصل -978-603-91072 :ردمك 3-1
9	Nagla Z. El-Alfy, Amany I. Alqosaibi, Mahmoud F Mahmoud, Asmaa A Emam	Role of Propolis against Monosodium Glutamate Genotoxicity by Chromosomal Aberration, Micronucleus Test and Comet Assay in Males	Der Pharmacia Lettre, 2020, 12 (8): 13-22
10	Nagla Zaky Ibrahim El -Alfy, Mahmoud Fathy Mahmoud, Amany Ibrahim Alqosaibi and Ayman Mohammad Abdullah	Genotoxic Effects of Depakine and/or Epanutin on Male Albino Mice Mus Musculus: Cytological and Molecular Study	wjpps, Vol 9, Issue 9, 2020
11	Mutaib M. Mashraqi, Navaneet Chaturvedi, Qamre Alam, Saleh Alshamrani, Mosa M. Bahnass, Khurshid Ahmad, Amany I. Alqosaibi, Mashael M. Alnamshan, Syed Sayeed Ahmad, Mirza Masroor Ali Beg, Abha Mishra, Sibhghatulla Shaikh, and Syed Mohd Danish Rizvi	Biocomputational Prediction Approach Targeting FimH by Natural SGLT2 Inhibitors: A Possible Way to Overcome the Uropathogenic Effect of SGLT2 Inhibitor Drugs	Molecules 2021, 26, 582.
12	Amany I. Alqosaibi, Shaimaa Abdel- Ghany, Hussein Sabit	Temozolomide modulates the expression of miRNAs in colorectal cancer	Cancer Treatment and Research Communications, 27 (2021) 100308
13	Khloud Algothmi, Hadeel Kalboneh, Aisha Alrofaidi, Mona Alharbi, Reem Farsi, Najla Alburae, Magdah Ganash, Alawiah Alhebshi, Fatema Basingab, Sheren Azhari, Manal Shaabad, Ashraf Dallol, Amany Alqosaibi, Mohammed Jan, Hesham Aldhalaan, Safiah Alhazmi	Effect of CpG Sites on Transcription Factor in Promoter of 'RASA3' Gene	International Journal of Pharmaceutical and Phytopharmacological Research(eIJPPR) Volume 11, Issue 1, Page 120-124, 2021
14	Nagla Zaky Ibrahim El -Alfy and Amany Ibrahim Alqosaibi	Hepatic Injuries Induced by Phentolep Drug and Hepatic Regenerative Capasity	World Journal of Pharmacy and

		in Male Albino Mice Mus Musculus: Molecular and Histological Studies	Pharmaceutical Sciences Vol 10, Issue 2, 2021
15	Hussein Sabit, Shaimaa Abdel-Ghany, Huseyin Tombuloglu, Emre Cevik, Amany Alqosaibi,Fatma Almulhim and Afnan Al-Muhanaa	New Insights on CRISPR/Cas9-based Therapy for Breast Cancer	Genes and Environment (2021) 43:15
16	N. Z. E. Alfy, A. Alqosaibi, Mahmoud Fathy Mahmoud, Ayman Mohammad Abdullah	Evaluation of hepatotoxicity of two famous antiepileptic drugs depakine and / or epanutin in male albino mice Mus musculus: integrated biochemical and histological studies	Indian Journal of Public Health Research and Development Vol. 11 No. 11,2020
17	Misbahuddin M. Rafeeq, Ziaullah M. Sain, Norah A. Alturki, Ahmad Alzamami, Saeed A. Asiri, Mutaib M. Mashraqi, Amany I. Alqosaibi, Mashael M. Alnamshan, Abdulrahman Almutairi, Abdulkhaliq Munawir Alanazi and Qamre Alam	Computational Screening of Natural Compounds for the Discovery of Potential Aromatase Inhibitors: A Promising Therapy for Estrogen- Dependent Breast Cancer	Journal of Pharmaceutical Research International 33(32A): 72-78, 2021
18	Aisha Alrofaidi, Raghad Alghamdi, Mona Alharbi, Khloud Algothmi, Reem Farsi, Najla Alburae, Magdah Ganash, Alawiah Alhebshi, Fatemah Basingab, Sheren Azhari, Manal Shaabad, Ashraf Dallol, Amany Alqosaibi, Mohammed Jan, Hesham Aldhalaan, Safiah Alhazmi	Association Between RAS-Like Proto- Oncogene B (RALB) Gene Expression and Methylation Levels in Saudi Autistic Children	International Journal of Pharmaceutical and Phytopharmacological Research(eIJPPR) February 2021 Volume 11 Issue 1 Page 173- 176
10	Ibtesam Al-Dhuayan, Essam Kotb, Amany Alqosaibi and Amal Mahmoud	Histological Studies on a Newly Isolated Bacillus subtilis D10 Protease in the Debridement of Burn Wound Eschars Using Mouse Model	Pharmaceutics 2021, 13, 923.
21	Aisha Alrofaidi, Rawan Saeed Alghamdi, Mona Alharbi, Khloud Algothmi, Reem Farsi, Najla Alburae, Magdah Ganash, Fatemah Basingab, Sheren Azhari, Heba Alkhatabi, Aisha Elaimi, Manal Shaabad, Ashraf Dallol, Amany Alqosaibi, Mohammed Jan, Hesham Aldhalaan and Safiah Alhazmi	The Correlation between Gene Expression and DNA Methylation Levels of RAS p21 Protein Activator 3 (RASA3) Gene in Saudi Autistic Children	Journal of Pharmaceutical Research International 33(33B): 20-26, 2021
21	Amal Mahmoud, Essam Kotb, Amany I. Alqosaibi, Ahmed A. Al-Karmalawy, Ibtesam S. Al-Dhuayan, Hameedah Alabkari	In vitro and in silico characterization of alkaline serine protease from Bacillus subtilis D9 recovered from Saudi Arabia	2021, HELIYON, Published by Elsevier Volume 7, Issue 10, E08148.
22	Muhammad Umair, Farooq Ahmad, Saeed Ahmad, Qamre Alam, Mohd Rehan, Amany I. Alqosaibi, Mashael M. Alnamshan, Misbahuddin M Rafeeq, Shahnaz Haque, Ziaullah M	A novel homozygous missense mutation in the zinc finger DNA binding domain of the GLI1 causes recessive post-axial polydactyly	2021, Front. Genet. 12:746949.

	Sain, Muhammad Ismail and Majid Alfadhel		
23	Wesam Al-Amarat, Mohammad H. Abukhalil, Osama Y. Althunibat, Manal A. Alfwuaires, Mashael M. Alnamshan, Amany I. Alqosaibi, Ahmad F. Ahmeda, Emadeldin M. Kamel, Hany H. Arab and Ayman M. Mahmoud	Galangin Attenuates Liver Injury, Oxidative Stress and Inflammation, and Upregulates Nrf2/HO-1 Signaling in Streptozotocin-Induced Diabetic Rats	Processes 2021, 9, 1562.
24	Fatma Al-Mulhim, Amany I. Alqosaibi, Afnan Al-Muhnna, Khalid Farid, Shaimaa Abdel-Ghany, Hamdy Rizk, Abdel-Bary Prince, Adaugo Isichei, Hussein Sabit	CRISPR/Cas9-mediated activation of CDH1 suppresses metastasis of breast cancer in rats	Electronic Journal of Biotechnology Volume 53, September 2021, Pages 54-60
25	Nagla Zaky Ibrahim El -Alfy, Amany Ibrahim Alqosaibi, Mahmoud Fathy Mahmoud, Ayman Mohammad Abdullah	Appraisal of Genotoxicity and Cytotoxicity of Depakine® and/or Epanutin® in Bone Marrow Erythrocytes and Hepatocytes of Male Albino Mice by Comet and Micronucleus Assays	Medico-legal Update, January-March 2021, Vol. 21, No. 1
26	Arwa Ali Almahasheer, Amal Mahmoud, Hesham ElKomy, Amany I. Alqosaibi, Sultan Akhtar, Sayed AbdulAzeez, and J. Francis Borgio	Novel feather degrading keratinases from Bacillus cereus group: Biochemical, genetic and bioinformatics analysis	Microorganisms 2022, 10: 93
27	Amany I Alqosaibi, Shaimaa Abdel- Ghany, Fatma Al-Mulhim, Hussein Sabit	Vorinostat enhances the therapeutic potential of Erlotinib via MAPK in lung cancer cells	Cancer Treatment and Research Communications Volume 30, 2022, 100509
28	Mutaib M. Mashraqi, Navaneet Chaturvedi, Qamre Alam, Saleh Alshamrani, Mosa M. Bahnass, Khurshid Ahmad, Amany I. Alqosaibi, Mashael M. Alnamshan, Syed Sayeed Ahmad, Mirza Masroor Ali Beg, Abha Mishra, Sibhghatulla Shaikh, and Syed Mohd Danish Rizvi	Chapter in a Book entitle: Computational Approaches: Drug Discovery and Design in Medicinal Chemistry and Bioinformatics Chapter title: Biocomputational Prediction Approach Targeting FimH by Natural SGLT2 Inhibitors: A Possible Way to Overcome the Uropathogenic Effect of SGLT2 Inhibitor Drugs Molecules 2021, 26, 582. https://doi.org/10.3390/molecules2603 0582	Published: December 2021 in Molecules ISBN 978-3-0365-2779- 6
29	Khloud Algothmi, Amal Alqurashi, Aisha Alrofaidi, Mona Alharbi, Reem Farsi, Najla Alburae, Magdah Ganash, Sheren Azhari, Fatemah Basingab, Asma Almuhammadi, Amany Alqosaibi, Heba Alkhatabi, Aisha Elaimi, Mohammed Jan, Hesham Aldhalaan, Aziza Alrafiah, Safiah Alhazmi	DNA Methylation Level of Transcription Factor Binding Site in The Promoter Region of Acyl-CoA Synthetase Family Member 3(ACSF3) in Saudi Autistic Children	Pharmacogenomics and Personalized Medicine, 2022

30	Shan He, Abdulraheem Ali Almalki, Misbahuddin M. Rafeeq, Ziaullah M. Sain, Amany I. Alqosaibi, Mashael M. Alnamshan, Ibtesam S. Al-Dhuayan, Abdul Rahaman, Yang Zhang, Hamsa Jameel Banje, Farah Anjum, Haitham Ali M. Alzghaibi, Ali H. Alharbi, and Qazi Mohammad Sajid Jamal	Targeting Cytotoxin-Associated Antigen A, a Virulent Factor of Helicobacter pylori-Associated Gastric Cancer: Structure-Based In Silico Screening of Natural Compounds	Molecules, 2022, Volume 27, Issue 3
31	Anwar Ullah, Zhaohan Lin, Muhammad Younus, Sarfraz Shafiq, Shazia Khan, Memoona Rasheed, Arif Mahmood, Amany I Alqosaibi, Mohammed Ali Alshehri, Amjad Khan, Muhammad Umair	Homozygous missense variant in POPDC3 causes recessive limb girdle muscular dystrophy type 26	Journal of Gene Medicine, 2022, 24(4):e3412.
32	Amany I. Alqosaibi	Nanocarriers for anticancer drugs: challenges and perspectives	Saudi Journal of Biological Sciences, Volume 29, Issue 6,
33	Ahmed Waqas, Anam Nayab, Shabnam Shaheen, Safdar Abbas, Muhammad Latif, Misbahuddin M. Rafeeq, Ibtesam S. Al-Dhuayan, Amany I. Alqosaibi, Mashael M. Alnamshan, Ziaullah M. Sain, Alaa Hamed Habib, Qamre Alam, Muhammad Umair and Muhammad Arif Nadeem Saqib	Biallelic Variant in the tRNA methyltransferase domain of the AlkB Homolog 8 causes Syndromic Intellectual Disability	Frontiers in Genetics. Volume 13, 2022
34	Abdelrazeq M Shehata, Vinod Kumar Paswan, Youssef A Attia, Mohammed Sh Abougabal, Tarek Khamis, Amany I Alqosaibi, Mashael Alnamshan, Reda Elmazoudy, Mohamed A Abaza, Ehab A A Salama, Mohamed Talaat El- Saadony, Ahmed M Saad and Abdel- Moneim Eid Abdel-Moneim	In ovo inoculation of Bacillus subtilis and raffinose affects growth performance, cecal microbiota, volatile fatty acid, ileal morphology and gene expression, and sustainability of broiler chickens (Gallus gallus)	Frontiers Nutrition, Volume 9, 2022
35	Safiah Alhazmi, Maryam Alzahrani, Reem Farsi, Mona Alharbi, Khloud Algothmi, Najla Alburae, Magdah Ganash, Sheren Azhari, Fatemah Basingab, Asma Almuhammadi, Amany Alqosaibi, Heba Alkhatabi, Aisha Elaimi, Mohammed Jan, Hesham M Aldhalaan, Aziza Alrafiah, Aisha Alrofaidi	Multiple Recurrent Copy Number Variations (CNVs) in Chromosome 22 Including 22q11.2 Associated with Autism Spectrum Disorder	Pharmacogenomics and Personalized Medicine, 2022:15 705–720
36	Amany I. Alqosaibi, Amal Mahmoud, Essam Kotb, Yan Huang, Ibtesam S. Al-Dhuayan, Safiah Alhazmi, Amany A. Bahloul, Shaima T. Okasha, Hend Al Otaibi, Najwa AlYami, and Edward Louis	Saccharomyces cerevisiae strain OS303 expression of a Alka-line protease from a newly isolated Bacillus subtilis D9	Brazilian Journal of Biology, 2022

37	Sultan Akhtar, Seyda Tugba Gunday, Amany I. Alqosaibi, Hanan Aldossary, Ayhan Bozkurt, Firdos Alam Khan	Template-free preparation of iron oxide loaded hollow silica spheres and their anticancer proliferation capabilities	RSC Advances, Volume 12,2022
38	Adam A. A. Sulaiman, Saeed Ahmad Saeed, Mujahid Hashimi, Amany I. Alqosaibi, AbdulMalik Puthan Peedikakkal, Ali Alhoshani, Nasser B. Alsaleh, Anvarhusein A. Isab	Novel dinuclear gold(I) complexes containing Bis (diphenylphosphano) alkanes and (Biphenyl-2-yl)(di-tert-butyl) phosphane: Synthesis, structural characterization and anticancer activity	New Journal of Chemistry,2022

Supervision of Master and/or PhD Thesis

(In Chronological Order Beginning with the Most Recent)

#	Degree Type	Title	Institution	Date
1	Master	Studies on keratinase gene of some keratinolytic bacteria dominated in the Eastern Region of Saudi Arabia	IAU	2020-2022
2	Master	Targeting the Unique Tumor Microenvironment and Metabolism	IAU	2020-2022

Current /completed Research

#	Research Title	Name of Investigator(s)	
1	Yeasts as cell factory and expression system for the production of commercial alkaline Protease	Amany Alqosaibi, et al.	Completed Awarded by DSR
2	A study on the telomere length for age estimation in a Saudi population	Mohammed Madadin, et al.	Completed Awarded by DSR
3	miR-469, miR-1185, miR-654, miR-3183 and miR-495 are downregulated in colorectal cancer cells and have putative roles in the mTOR pathway	Naif AlQurashi, et al.	Awarded by DSR
4	Evaluation of a novel in polycystic ovary, breast cancer and teratology of <i>Costus speciosus</i> extract: Genotoxic, biochemical and histopathological aspects	Amany Alqosaibi, et al.	Awarded by DSR
5	Exploration and utilization of Phyto-beneficial and halo-tolerant Endophytes as a Substitute for Sustainable and Eco-friendly Agriculture in Kingdom of Saudi Arabia	Shahzad Raheem, et al.	Awarded by DSR
6	CRISPR/Cas9 approach to control Breast Cancer via activation of CDH1 in rats.	Afnan Al-Muhanaa, et al.	Awarded by DSR

Research Interests

Research Interests

Molecular Biology, genomics, Bioinformatics, RNA biology, Gene regulation, Gene silencing, Epigenetics, Telomere biology, Cancer biology, Forensic biology.

Professional Research experience

Professional Research experience

- Experience in molecular biology techniques such as; PCR, RT-PCR, qRT-PCR, Western blotting technique, follow cytometry, cDNA-synthesis, Rapid amplification of cDNA, Primer/Probe synthesis, Point mutation, knock out gene, screen the whole gene deletion collection.
- DNA: Isolation, purification, cloning, sequencing, electrophoresis.
- RNA: Isolation and purification.
- Cell culture technique.
- Cell proliferation and cytotoxicity.
- Dealing and treatment of experimental animals.
- Preparation of slides (preparing the animal tissues, chromosomes and slides to be examined microscopically).

Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of the Conference	Extent of Contribution
1	British Yeast Group Conference	21st -23rd March 2013, Nottingham, United Kingdom.	Attended with a scientific contribution (poster presentation)
2	Telomeres & Telomerase meeting at Cold Spring Harbor Laboratory	April 30 – May 4, 2013, Cold Spring Harbor Laboratory, New York, United States of America.	Attended with a scientific contribution (poster presentation)
3	The scientific talks at the UK Genome Science Meeting	2 nd -4 th Sep 2013, Nottingham, United Kingdom.	Attended with a scientific contribution (poster presentation)
4	Personal skills for the working environment: A conference for PG students	10 th Jan 2013, Nottingham, United Kingdom.	Attended
5	The 12th East Midlands Proteomics conference	6 th Nov 2013, Leicester, United Kingdom.	Attended
6	Researcher-led seminar series - multiplex sample analysis and Luminex,	7 th Nov 2013, Nottingham United Kingdom.	Attended
7	Flow Cytometry meeting	13 th Nov 2013, Nottingham United Kingdom.	Attended
8	Functional Genomics & Systems Biology Conference	21 st -23 rd Nov 2013, Well come Trust Conference Centre, Hinxton, Cambridge, United Kingdom.	Attended with a scientific contribution (poster presentation)

9	RNA-UK 2014	24-26 th Jan 2014, Windermere, Lake District, United Kingdom.	Attended with a scientific contribution (poster presentation)
10	The 7th Saudi Student Conference-UK	1 st - 2 nd Feb 2014, Edinburgh, United Kingdom.	Attended with a scientific contribution (poster presentation)
11	The Scientific Laboratory Show & Conference.	14 th May 2014, Nottingham, United Kingdom.	Attended
12	Circling the Square- Research, Politics, Media and Impact' Conference	20 th -22 nd May 2014, University of Nottingham, United Kingdom.	Attended
13	The M5 Biomedical Imaging Conference	9 th Sep 2014, Nottingham, United Kingdom.	Attended with a scientific contribution (poster presentation)
14	The Complex Life of mRNA at the EMBO- EMBL.	5 th – 8 th Oct 2014, EMBL Advanced Training Centre, Heidelberg, Germany.	Attended with a scientific contribution (poster presentation)
15	British Yeast Group Conference	25 th -27 th March 2015, Manchester Institute of Biotechnology (MIB), The University of Manchester, United Kingdom.	Attended with a scientific contribution (Oral presentation)
16	M4 MIDLANDS MOLECULAR MICROBIOLOGY MEETING	14 th - 15 th Sep 2015, University of Nottingham	Attended with a scientific contribution (poster presentation)
17	The 4th Saudi International Nanotechnology Conference	25 th -27 th Oct 2016, King Fahd University of Petroleum & Minerals, Saudi Arabia, Dammam.	Attended
18	The 3rd Middle East Molecular Biology Congress and Exhibition	14 th - 17 th Nov 2016, Research Complex, Qatar University, Doha, Qatar.	Attended
19	Jojoba reality and hope in biotechnology	29 th Nov 2017, King Faisal university in cooperation with Aramco, Alhassa, Saudi Arabia.	Attended
20	The 3rd Annual National Academic Training and Development Program (NATDP) Symposium.	22 nd Mar 2018, King Abdullah University of Science and Technology (KAUST)	Attended
21	International conference on education evaluation ICEE 2018	4 th - 6 th Dec 2018, The education evaluation commission, Saudi Arabia, Riyadh.	Attended
22	Sustainable development of desert regions conference	22 nd -24 th Jan 2019, Imam Abdulrahman Bin Faisal University, Saudi Arabia, Dammam.	Attended

23	The international Conference on Education & Training Evaluation 2020	14 th -15 th Oct 2020. Education and training evaluation commission in partnership with the G20 Saudi secretariat, Saudi Arabia.	Held virtually
24	Brazilian bioenergy science and technology conference BBEST 2020- 2021 - Biofuture summit II 2020	15 th Oct 2020, Brazil	Held virtually
25	First scientific conference of heads and supervisors of scientific departments	10 th -12 th Nov 2020, King Abdulaziz University, Saudi Arabia.	Held virtually
26	International webinar on science, sustainable development, and ecosystem in Saudi Arabia 2021	6 th -7 th Apr 2021, Imam Abdulrahman Bin Faisal University, Saudi Arabia, Dammam	Held virtually
27	Riyadh Global Medical Biotechnology Summit	14 th -16 th Sep 2021, King Abdullah International Medical Research Center (KAIMRC) & Ministry of National Guard - Health Affairs	Held virtually
28	The 5 th international conferences of the Arab society for forensics sciences and forensic medicine	23 rd -25 th Nov 2022, Naif Arab University for Security Sciences, Riyadh	Held virtually
29	The Second International Webinar on Science, Sustainable Development and Ecosystem in Saudi Arabia 2022	14 th -17 th Feb 2022, Imam Abdulrahman Bin Faisal University, Saudi Arabia, Dammam	Held virtually
30	The 1 st international conference on food security and environmental sustainability	7 th Mar 2022, The Ministry of Environment, Water and Agriculture (MEWA), and the Arab Organization for Education, Culture and Science (Alexo) at king Faisal university	Attended
31	10 th Symposium & Exhibition Environmental opportunities for global sustainability	19 th May 2022, The Ministry of Environment, Water and Agriculture & Aramco	Attended
32	Symposium on Innovative Materials for a Sustainable Future	24 th -23 rd Feb 2022, KFUPM	Attended

Teaching Activities

Undergraduate

#	Course/Rotation Title	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Molecular Biology	Lectures and labs
2	Principle of Genetics	Lectures and labs
3	Cell Biology	Lectures and labs
4	Gene Regulation	Lectures
5	Forensic Biology	Labs
6	Graduation Project	Project
7	Invertebrates	Lectures
8	Comparative Anatomy	Labs
9	Environmental Toxicology	Labs
10	Vertebrates Biology	Labs

Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

Gene Regulation (GENTC420): In this course the student will be studying: the regulation of transcription in eukaryotic organisms; post-transcriptional regulation; Chromatin remodeling and Histone modifications, epigenetic mechanisms of gene regulation and microRNAs, RNAi; how the process of translation and protein synthesis is controlled. Also, study CRISPR and other new methods to modulate gene expression. Identify similarities and differences in gene regulation in prokaryotes and eukaryotes.

Principles of Genetics (GENTC304): The basic principles of genetics in prokaryotes and Eukaryotes. Chromosomal basis of heredity:(Chromosome theory & Structure & Function of chromosomes). Cell Division (Mitosis & Meiosis-cell cycle). Patterns of inheritance (Genotype - Phenotype -Haploid-Diploid-Polymorphism of genetic character). Mendelian genetics. Non - Mendelian genetics. Genetic and chromosomal abnormalities. The genetic material (Structure of DNA&RNA molecules- nucleic proteins). The functional units of DNA (types of genes). Principles of population genetics. Genetic variations

Postgraduate

#	Course/Rotation Title	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Advanced Molecular Biology	Lectures and labs
2	Seminar	Supervision
3	Thesis	Supervision

Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

Advanced Molecular Biology (Zool 623): This course aims to teach students to understand the chemical structure of genetic material, DNA replication, genetic mutations, and DNA repair. Mechanisms of RNA transcription and post transcriptional mechanisms, translation and post translation mechanisms of gene regulation. Define linkage analysis, epigenetics, pedigree analysis and dysmorphology). Also, study

epigenetics modifications (Histone modifications, methylation, Genomic imprinting, and RNA Interference). Moreover, explore CRISPR and other new methods to modulate gene expression.

Course Coordination

#	Course Title and Code	Coordinatio n	Co- coordination	Undergra d.	Postgrad.	From	То
1	Gene Regulation	$\sqrt{}$	-	$\sqrt{}$	-	2018	2022
2	Principle of Genetics	$\sqrt{}$	-	V	-	2019	2022
3	Advanced Molecular Biology	√	-	-	V	20:	19

Student Academic Supervision and Mentoring

#	Level Number of Students		From	to
1	Undergraduate	5	2017	2018
2	Undergraduate	10	2019	2020
3	Undergraduate	29	2020	2021
4	Undergraduate	16	2021	2022
5	Postgraduate (Master)	1	2020	2022

Administrative Responsibilities, Committee and Community Service

(Beginning with the most recent)

#	From	То	Position	Organization
1	2020	Till	Member of the Standing Committee of Care and Use of Animals in Scientific Research	lmam Abdulrahman bin Faisal university
2	2022	Till	Head of Graduates studies committee	Biology Department, Science College
3	2021	2022	Head of developmental Master programs committee at Biology department	Biology Department, Science College
4	2021	2021	Member of the Committee to review policies and regulations for motivating IAU faculty members	lmam Abdulrahman bin Faisal university
5	2020	2021	Head of Academic Programs Development Unit, College of Science	College of Science
6	2020	2021	Member of the Higher Committee for the environmental program	College of Science
7	2020	2021	Member of the Higher Committee for the Statistics Program	College of Science
8	2020	2021	Head of committee to review and restructure academic programs	College of Science

9	2020	2021	Member of the interdisciplinary program committee	College of Science
10	2021	2022	Member of the self-study standard 3 & substandard 5.	Biology Department, Science College
11	2020	2022	Member of the Awareness Committee of the Saudi Human Genome Project	Biology Department, Science College
12	2017	2020	Vice Dean of Admission and Registration for Female section	Vice Dean of Admission and Registration for Female section
13	2017	2020	Head of Waai awareness initiative (مبادرة وعي) for IAU students	Deanship of Admission and Registration
14	2018	2020	Member of the strategic plan committee of Deanship of Admission and Registration	Deanship of Admission and Registration
15	2016	2019	Head of developmental programs committee at Biology department	Biology Department, Science College
16	2015	2019	Head of developmental bachelor program (cell and molecular genetics track)	Biology Department, Science College
17	2017	2017	Member of the Advisory Committee for Research Units	Science College
18	2016	2016	Head of the committee of final exam of the Department of Biology	Biology Department, Science College

Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work	Date
External reviewer	External reviewer for Bachelor program, Biotechnology department at Taif University.	February,2018
Independent external reviewer	Independent external reviewer for Biology Bachelor programs (zoology-plants- microbiology) accreditation, in preparation for NCAAA visit, King Abdulaziz university.	February,2022
Supervisor of Biotechnology unit (online)	King Abdulaziz and his Companions Foundation for Giftedness and Creativity "Mawhiba".	June, 2021
Trainer of Biotechnology unit (online)	King Abdulaziz and his Companions Foundation for Giftedness and Creativity "Mawhiba".	August, 2021
Trainer of Biomedical sciences unit (online & on campus)	King Abdulaziz and his Companions Foundation for Giftedness and Creativity "Mawhiba".	August, 2022

Community services & Volunteer Work

Participate in different community services around 276 credit hours in different area such as:	
Community services & Volunteer Work Date	
Supervising 4 of Mawhiba talented Students. 2016-2	
Contribute with the educational awareness program 'Drugs' in Science college 2017	

Supervising 1 of Mawhiba talented Student.	2018-2019
Arrange several lectures on Forensic biology and COVID19 pandemic.	2020
Participate in awareness of the Saudi Human Genome Project program.	2020-2021
Gift Donation to the Children's Cancer Society in the World Children's Cancer Day.	2021
Participate in field visit to mangrove nurseries on Tarut Island.	2021
An educational awareness campaign to introduce genetic diseases and diagnosis methods and treatment within the principle of genetics course activities.	2021
Arrange a DNA week which includes DNA exception and moderate 2 lectures (human genome and personalized medicine- forensic blood analysis).	2022
Presenting a lecture entitled the Saudi Human Genome Project.	2022
Conducting research to help community to solve the degradation of birds feathers (Novel feather degrading keratinases from Bacillus cereus group: Biochemical, genetic and bioinformatics analysis).	2020-2022

Scientific Consultations

#	From	То	Institute	Full-time or Part- time
1	2015	2018	Member of Committee for the Preparation of Courses Descriptions of Bachelor Programs Courses in Biology Dep.	Pat-time

Training courses and Workshops

#			
	I have attended the following v	workshops and training course at United Kingdom	the University of Nottingham,
	Workshops	Training courses	Other
1			Intensive English Program at Embassy CES collage in UK for 1 year.
2			pre-master course at Bellerbys college in UK from 18th April– 1st July 2011
3		New Research Workers Health and Safety Training (Chemical Bias) on the 12/10/2011.	
4		Biological Safety on the 09/11/2011.	
5			understanding the student psychology Lecture
6			Workshop on Youth reality and aspirations
7		Laboratory Practice 2 - basic techniques on the 20/02/2013.	
8		An Introduction to Flow Cytometry, 28/01/2014.	

9		Ultracentrifuge training course, 3/09/2014	
10	Workshop on Access to Gene and Genomics with Ensmbl 12/01/2012 from the European Bioinformatics Institute.	-,,	
11	Introduction to Academic Writing 13-27/10/2011.		
12	Induction to Library Services for the New Researcher on the 14/10/2011.		
13	Essential information skills for new researchers in biology on the 24/10/2011.		
14	Presentation skills for researchers (Science & Engineering) on the 09/01/2012.		
15	Microsoft Excel: Introduction on the 22/02/2012		
16	Microsoft PowerPoint: Introduction on the 08/03/2012.		
17	Referencing and citing using Endnote on the 21/03/2012.		
18	Introductory Event to Teaching for PG Research Students and Researchers on the 23/04/2012.		
19	Stress Reduction Techniques on the 28/11/2012.		
20	Improve your Memory on the 25/06/2012.		
21	Microsoft PowerPoint: Advanced on the 19/02/2013.		
22	Creating a Poster in PowerPoint on the 12/03/2013.		
23	Presentation Skills: Structure and Technique on the 15/03/2013.		
24	Evaluating your Teaching on the 12/06/2013.		
25	Introduction to quantitative research on the 20/06/2013, 28/06/2013.		
26	PhD writes up support series - Regulations & formatting on the 29/10/2013.		
27	Ethics of human tissue and animal studies in research, 15/01/2014.		
28	Keeping up to date with research in engineering, medicine & science, 06/02/2014.		

29	Essential information skills for new researchers in Science,		
	12/02/2014.		
	Creating and Managing Long		
30	Documents in Microsoft Word,		
	3/03/2014.		
24	Using Excel as a Database,		
31	4/03/2014.		
	Lecturing for Learning,		
32	30/04/2014.		
	Creating Personal Impact – The		
33	-		
	thinking skills, 2/05/2014.		
34	Problem exploration in research		
	on the 04/02/2015.		
35	Finishing your thesis 07/02/2015.		
36	Post-genomics and bioinformatics		
30	18-20/03/2015		
	Preparing for the viva		
37	06/05/2015.		
	Microsoft Outlook: Introduction		
38	to email 13/05/2015.		
56	to email 15/05/2015.		
		ollowing workshops and training courses in Saudi Arabia	
	Global university ranking-		
39	improving UOD ranking		
	31/01/2016		
	31/01/2010		
	The new procedural manual to		
40	The new procedural manual to		
40	The new procedural manual to review academic programs		
40	The new procedural manual to	Developing core competencies in	
	The new procedural manual to review academic programs	Developing core competencies in teaching and learning in higher	
40	The new procedural manual to review academic programs	teaching and learning in higher	
	The new procedural manual to review academic programs	teaching and learning in higher education (intensive training	
	The new procedural manual to review academic programs 16/02/2016	teaching and learning in higher	
	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop	teaching and learning in higher education (intensive training	
41	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of	teaching and learning in higher education (intensive training	
	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of education development for the	teaching and learning in higher education (intensive training	
41	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of education development for the teaching assistants and lecturers	teaching and learning in higher education (intensive training	
41	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of education development for the	teaching and learning in higher education (intensive training	
41	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of education development for the teaching assistants and lecturers	teaching and learning in higher education (intensive training	
41	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of education development for the teaching assistants and lecturers to study overseas, 21/4/2016	teaching and learning in higher education (intensive training	
41	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of education development for the teaching assistants and lecturers to study overseas, 21/4/2016 A workshop new mechanism to review and develop study plans	teaching and learning in higher education (intensive training	
41	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of education development for the teaching assistants and lecturers to study overseas, 21/4/2016 A workshop new mechanism to review and develop study plans 16/2/2016	teaching and learning in higher education (intensive training	
41 42 43	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of education development for the teaching assistants and lecturers to study overseas, 21/4/2016 A workshop new mechanism to review and develop study plans 16/2/2016 A workshop for faculty members	teaching and learning in higher education (intensive training	
41	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of education development for the teaching assistants and lecturers to study overseas, 21/4/2016 A workshop new mechanism to review and develop study plans 16/2/2016 A workshop for faculty members to prepare a strategic study plan	teaching and learning in higher education (intensive training	
41 42 43	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of education development for the teaching assistants and lecturers to study overseas, 21/4/2016 A workshop new mechanism to review and develop study plans 16/2/2016 A workshop for faculty members to prepare a strategic study plan by the Vice Presidency for	teaching and learning in higher education (intensive training	
41 42 43	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of education development for the teaching assistants and lecturers to study overseas, 21/4/2016 A workshop new mechanism to review and develop study plans 16/2/2016 A workshop for faculty members to prepare a strategic study plan by the Vice Presidency for Academic Affairs 2/6/2016	teaching and learning in higher education (intensive training	
41 42 43	The new procedural manual to review academic programs 16/02/2016 Participation in the workshop arranged by deanship of education development for the teaching assistants and lecturers to study overseas, 21/4/2016 A workshop new mechanism to review and develop study plans 16/2/2016 A workshop for faculty members to prepare a strategic study plan by the Vice Presidency for	teaching and learning in higher education (intensive training	

46		Introduction to Droplet Digital™ PCR: Workflow and Applications, By Bio-Rad, 15/11/2016	
47		Introduction to Quantum Biology: A New Science, By Phi science institute, 14/11/2016	
48		Faculty mentorship certification program 12/6/2016- 8/5/2017 11 months	
49	A workshop 'developed program" for the Faculty of Science 5/6/2016		
50	Creative and Active Teaching Strategies; An Art-based Teaching Approach, 7/2/2017		
51	Poster presentation academic & conferences 15/2/2017		
52	Innovation workshop with Faculty and Students. 6/3/2017, 15/3/2017		
53	Writing a research paper in English: Tips for ESL authors. Webinar. 28/3/2017		
54		Molecular Identification & Validation of Novel Species of Bacteria, 10/4/2017	
55	Author Workshop in Scholarly Publishing 20/12/2017		
56	High-quality assessment through Rubric, 25/1/2018		
57	Women Leadership Forum in higher Education, 27 Jan -1 Feb 2018		
58	The 1st genome meeting, hope panel, 27/3/2018		
59	ALC Webinar 7: Robot-Proof: Higher Education in the Age of Artificial Intelligence by Dr. Joseph Aoun, president Northeastern university, USA 28/3/2018		
60	Learning outcomes assessment 27/9/2018		
61	Developing a Plan for Academic Program Assessment 2/9/2018		
62	Teaching your subject in English: making it understandable		

	0/10/2019	
	9/10/2018	
	Emotional Intelligence for	
63	Academic Leaders	
	15/10/2018	
64	knowledge café	
	28/10/2018 Best practice in Finnish education	
65	13/11/2018	
	Enhancing Assessment Tasks For	
	21st Century Skills in University	
66	and College Courses by Prof.	
	Gordon Joughin	
	4/12/2018	
	Developing Entrepreneurship	
	Skills in Education: Transforming	
67	research ideas into projects and	
	products	
	4/12/2018	
68	Values Lead your Future	
	4/12/2018	
	Leadership Skills in the 21st	
69	Century	
	5/12/2018	
70	Skills for generation 2030	
	5/12/2018	
71	Skills teaching and learning 5/12/2018	
	Curriculum and assessments for	
	21st century in an age of artificial	
72	intelligence	
	5/12/2018	
	Developing and Evaluating	
70	Competencies of Educational	
73	Leader	
	6/12/2018	
	Competence based education in	
74	the kingdom of Saudi Arabia	
	6/12/2018	
	Saudi universities best practices	
75	in skills development	
	6/12/2018	
	Best national and international	
76	practices in skills development	
	and assessment	
	6/12/2018	
77	Challenges in skills teaching and assessment	
//	6/12/2018	
78	SAQF & NQF	
	-: · · · · · · · · · · · · · · · · · · ·	

	2/12/2018	
79	Workshop Animal care and use in scientific research. 21/3/2019	
80	Creating a positive classroom community 20/8/2019	
81		Finnish education success in entrepreneurship & innovation 12/11/2019
82		The 1st Saudi Academic Female Leaders Forum 5-6/2/2020
83		11 th Winter Enrichment Program WEP 2020 19/1/2020
84		Empowering Women to Lead in A Changing World 5/2/2020
85	Transformational Leadership Through Strategic 6/2/2020	
86		Deans, vice deans, chairpersons who pave the way? 6/2/2020
87		1st national forum on business transformation: opportunities & challenges 30/11/2019
89		COVID-19 Prevention to Cure 7/2/2020
90	Teaching During an Exceptional Time 24/3/2020	
91	Laboratories Accreditation Requirements and Steps According to ISO/ IEC 17025:2017 7/4/2020	
92	Risk Management -Hemaya (Risk Reporting Tool) 14/4/2020	
93	Journal Citation Reports- Create Your Publication Strategy 15/4/2020	
94	Research Proposal & the IRB- The Whole Story 18/4/2020	

95		Webinar: Online Assessment Strategies During and After the
95		COVID-19 Pandemic 29/6/2020
0.5		Webinar: Promoting research
96		excellence towards 2030 vision 30/6/2020
		Webinar: Essential Learning Outcomes, Engaged
97		Pedagogy and Assessment
		for Quality Learning 1/7/2020
		Webinar: Issues to Consider in
98		Planning the Return to Campus 6/7/2020
		Webinar: Promoting Quality
99		Online Learning through Faculty
		Development: Challenges and
100		Strategies for Success 7/7/2020
		Webinar: Leading Research and
101		Innovation in Universities
		8/7/2020 Webinar: The Efforts of Higher
		Education During
102		COVID-19 Crisis and Future
		Trends (Arabic Session) 12/7/2020
		Tertiary Education System for
103		the 21st Century, in Light of the COVID-19 Pandemic
		20/7/2020
		the KAU & Stanford Webinar titled "Molecular designing of
		RNA vaccines for COVID-19
104		from the desktop" By Prof.
		Rhiju Das, Stanford University,
		USA. 16/09/2020
105		Forensic medicine: Alife from
		death, 16/09/2020
		Webinar: TVET system's response to COVID-19:
106		challenges and opportunities 17/08/2020
	Effective Formative Assessment in	17/00/2020
107	the 21st Century Classroom	
	18/08/2020	

108	Development through Peer Observation of Teaching (POT) 19/08/2020	
109	Boosting Student Engagement and Interaction in the Online Classroom 26/08/2020	
110		Seminar on Converting a research into commercial assets 28/09/2020
111	Workshop Unleash Your Entrepreneurial Talent and Discover the Market Opportunities 12/10/2020	
112	"The road to successful collaboration" 14/10/2020	
113	workshop: How to create a course portfolio 15/10/2020	
114		Women in Data Science @ KFUPM workshop 28/10/2020
115		Webinar Title: Models of Higher Education Practice Fit for A Post-Pandemic World 21/12/2020
116	Empower Your Lecture: Make your Lecture Planning Active 12/1/2021	
117	Assessment and Learning Outcomes during COVID-19 20/1/2021	
118	Enrichment Session 21st Century Skills and Requirements of Economic Growth and Labor Market 1/2/2021	
119	Quality Assurance For E-learning And Learning Management System 15/2/2021	
120	Outcome Based Assessment of Student Learning & Performance 15/3/2021	
121	Learning and Leading in the 21 st Century	

	25/5/2021		
	Graduates Attributes: Design and		
122	Assessment		
122	14/6/2021		
	The process of program		
	development in general and a		
123	comprehensive presentation of		
	the Program Self-Study.		
	18/10/2021		
		The Role of Department Head in	
124		Developing Professional Teaching	
124		Standards and Frameworks.	
		25/10/2021	
	Inclusive Teaching and Learning in		
125	Higher Education International		
	Workshop		
	16-17/11/2021		
	Achieving the Promise of		
126	Classroom Assessment to Improve Student Learning and		
120	Success		
	1/2/2022		
	Introduction to Team-Based		
127	Learning (TBL)		
	1/3/2022		
	Integrating Leadership Skills in		
128	Academic Curriculum		
	29/3/2022		
129	Instructions Resilient Pedagogies		
	29/3/2022		
		Gene Therapy Academy Emerging	
120		Markets (Vector design and	
130		engineering: deep dive into the	
		science)	
		26/3/2022	Predatory journals: how to
131			identify and avoid
131			16/3/2022
			Webinar entitled: THE ART OF
			DESIGNING & MEASURING KEY
			PERFORMANCE INDICATORS
132			(KPIs) FOR ACADEMIC
132			PROGRAMS AND
			COMMUNICATING RESULTS TO
			STAKEHOLDERS
			24/5/2022
			webinar series entitled
133			"Graduates Attributes: Design
			and Assessment

	16/4/2022
134	Webinar Series - Gene Therapy Academy Pfizer - Understanding Basics of Gene Therapy 19/2/2022
135	Frontiers Forum Prof Jennifer Doudna The CRISPR health revolution 31/3/2022

Honors and awards

#	Honors/ Award name	Donor	Date
1	Honor from College of Science for bachelor's degree	Science College for girls in Dammam, Saudi Arabia.	1423/ 2002
2	The Saudi Cultural Bureau Annual Honors Awards - 4 years in a row, United Kingdom	The Saudi Cultural Bureau, United Kingdom	2011 - 2015
3	Awarded certification in the faculty mentorship certification program (mentee)	Deanship of Academic Development, Imam Abdulrahman Bin Faisal University	May, 2017

Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

Biotechnology: Experience in molecular biology techniques.
 Dealing and treatment of experimental animals
 All computer programs.
 Teamwork and leadership.

Membership of Scientific and Professional Societies and Organizations

- Genetics Society, United Kingdom.
- Saudi Biological society, Saudi Arabia.
- Biological sciences, Egypt.
- Scientifics society for Saudi student in the United Kingdom, United Kingdom.
- MEMBS Middle East Molecular Biology Sources.

Last Update 01/09/2022