



# FIRDOS ALAM KHAN:

POSITION: PROFESSOR

## Personal Data

Nationality | INDIAN

Date of Birth | 01/05/1969

Department | STEM CELL RESEARCH

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## Language Proficiency

Language	Read	Write	Speak
Arabic	√	√	
English	√	√	√
Urdu	√	√	√

## Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
25/10/1997	PhD	Nagpur	Nagpur University, India
30/06/1993	MSc	Nagpur	Nagpur University, India
30/06/1990	BSc	Nagpur	Nagpur University, India

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

PhD	Studies on some Neuroactive Substances Containing Systems in the Brain of <i>Clarias batrachus</i> (Linn.): Structure-Function Correlates
Master	-
Fellowship	-Postdoctoral Associate, Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts, USA - Fellow of the Royal Society of Biology (FRSB), UK - Sigma Xi Honor Society, USA (MIT Chapter)



### Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work		Date
Professor		Department of Stem Cell Research, Institute for Research & Medical Consultations, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia	Sept-2017
Professor		School of Life Science, Manipal Academy of Higher Education, Dubai, United Arab Emirates	Dec-2009- June-2017
Associate Professor		School of Life Science, Manipal Academy of Higher Education, Dubai, United Arab Emirates	Dec-2005- June-2009
Research Scientist		Reliance Life Sciences, Mumbai, India	June 2002- August 2005

### Administrative Positions Held: (Beginning with the most recent)

Administrative Position	Office	Date
Chairperson	Department of Stem Cell Research, Institute for Research & Medical Consultations, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia	Dec-2017- Sept-2024
MSc Biotechnology Program Coordinator	Institute for Research & Medical Consultations, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia	Sept 2023- Dec 2023
Chairperson	School of Life Sciences, Manipal Academy of Higher Education, Dubai, United Arab Emirates	Dec-2006- June-2017
Chairman	Research & Development Program, Manipal Academy of Higher Education, Dubai, United Arab Emirates	June 2014- June 2017

### Scientific Achievements

#### Published Refereed Scientific Researches

(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publisher	Date of Publication
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1	Muidh Alheshibri, Khaled A Elsayed, Firdos Alam Khan, Shamsuddeen A Haladu, Filiz Ercan, Emre Çevik, QA Drmosh, TS Kayed, MA Almessiere	Tuning the morphology of Au/ZnO nanocomposite using pulsed laser ablation for anticancer applications	Arab J Sci Eng	1-Jan-24
2	Fatimah Alahmari, Firdos Alam Khan, H Sozeri, M Sertkol, Mariusz Jaremko	Electrospun Cu–Co ferrite nanofibers: synthesis, structure, optical and magnetic properties, and anti-cancer activity	RSC Adv.	3/4/2024
2	Firdos Alam Khan	Nano Drug Delivery for Cancer Therapy: Principles and Practices	Book Springer	9 Jan, 2024
3	Firdos Alam Khan	Testing of Nanocarriers Loaded with Chemotherapeutic Agents: Cancer Patients and Clinical Trials	Book Chapter Springer	9 Jan, 2024
4	Firdos Alam Khan	Nanocarriers-Based Products in the Market, FDA Approval, Commercialization of Nanocarriers, and Global Market	Book Chapter Springer	9 Jan, 2024
5	Khalid Umar Fakhri & Firdos Alam Khan	Health and Environmental Hazards Associated with the Synthesis of Nanomaterials-Respiratory Diseases, Government Regulations, Ethical Issues	Book Chapter Springer	9 Jan, 2024
6	Mohammad Azam Ansari EMAIL logo , Hassan Nassr Al Dhneem , Syed Ghazanfar Ali , Yahya Fahad Jamous , Mohammad Nasser Alomary , Banan Atwah , Maryam Saleh Alhumaidi , Umme Hani , Nazima Haider , Sarah Asiri and Firdos Alam Khan	Facile, polyherbal drug-mediated green synthesis of CuO nanoparticles and their potent biological applications	Green Processing and Synthesis	2/14/2024
7	Suriya Rehman, Vijaya Ravinayagam, Suhailah S Al-Jameel, Syed Mehmood Ali, Sukainah Z Alzayer, Zahrah M Alfaraj, Atheer Alboeid, Nawal Alamri, Sakinah H Al Isam, H Dafallae, Sugapriya Dhanasekaran, Gazali Tanimu, Firdos Alam Khan, B Rabindran Jermy	Controlling cisplatin release by synergistic action of silver-cisplatin on monodispersed spherical silica for targeted anticancer and antibacterial activities	Arabian Journal of Chemistry	14-Feb-24



8	Y Slimani, S Caliskan, Firdos A 9Khan, A Baykal, M10A Almessiere	Synthesis, characterization, DFT calculations, and anticancer properties of VI-period and f-block elements-substituted zinc oxide nanopowders	Optical Materials	15-Apr-24
9	B Rabindran Jermy, FA Khan, Vijaya Ravinayagam, MA Almessiere, Y Slimani, M Hassan, AM Homeida, EA Al-Suhaimi, A Baykal	Multifunctional CoCe/silica and CoMnCe/silica spinel ferrite nanocomposite: in vitro and in vivo evaluation for cancer therapy	Nano-Structures & Nano-Objects	16-Jul-24
10	S. Akhtar a,*, R. AlAnsari b, B. Hasan b, S. Hasan b, A. Zayer b, J. AlHaddad b, M.A. Ansari c, F.A. Khan d, A. Ul-Hamid e, F.Z. Henari b, G. Roshan Deen	Anticancer and antibacterial potential of green synthesized BSA conjugated silver nanoparticles	Journal of Saudi Chemical Society	14-Aug-24
11	Hessah M Almuzafar, Najla N AlDuhaisan, Hanin M Ahmed, Asma M Elsharif, Suriya Rehman, Sultan Akhtar, Zainab Alsalem, Firdos Alam Khan	Synthesis and characterizations of Fe (II) phthalocyanine and Zn phthalocyanine on colon cancer, cervical cancer, and bacterial cells	Arab Journal of Basic and Applied Sciences	9-Apr-23
12	Mohd Amir, Mohammad Azam Ansari, Shadma Wahab, Wasim Ahmad, Maryam S Alhumaidi, Mohammad N Alomary, Sami A Alyahya, Qazi Mohammad Sajid Jamal, Firdos Alam Khan, Prawez Alam	In vitro, molecular docking and in silico/ADMET study of cuminaldehyde against Candida, MDR bacteria and human colorectal and cervical carcinoma	South African Journal of Botany	10-Nov-23
13	Noor Alrushaid, Firdos Alam Khan, Ebtessam Al-Suhaimi, Abdelhamid Elaissari	Progress and Perspectives in Colon Cancer Pathology, Diagnosis, and Treatments	Diseases	24 Oct, 2023
14	Suriya Rehman, Balasamy Rabindran Jermy, Irfan A Rather, Jamal SM Sabir, Suhailah S Aljameel, Munirah A Almessiere, Yassine Slimani, Firdos A Khan, Abdulhadi Baykal	Pr <sup>3+</sup> Ion-Substituted Ni-Co Nano-Spinel Ferrites: Their Synthesis, Characterization, and Biocompatibility for Colorectal Cancer and Candidaemia	Pharmacueticals	20 Oct, 2023
15	Mohammad Azam Ansari, Rajakumar Govindasamy, Mohammed Yasmin Begum, Mohammed Ghazwani, Ali Alqahtani, Mohammad N Alomary, Yahya F Jamous,	Bioinspired ferromagnetic CoFe <sub>2</sub> O <sub>4</sub> nanoparticles: Potential pharmaceutical and medical applications	Nanotechnology Reviews	31 Jul, 2023



	Sami A Alyahya, Sarah Asiri, Firdos Alam Khan, Munirah A Almessiere, Abdulhadi Baykal			
16	Abbad Al Baroot, Khaled A Elsayed, Firdos Alam Khan, Shamsuddeen A Haladu, Filiz Ercan, Emre Çevik, QA Drmosh, MA Almessiere	Anticancer activity of Au/CNT nanocomposite fabricated by nanosecond pulsed laser ablation method on colon and cervical cancer	Micromachines	20 Jul, 2023
17	Suriya Rehman, Fatimah Alahmari, Laila Aldossary, Maryam Alhout, Suhailah S Aljameel, Syed Mehmood Ali, Jamal SM Sabir, Firdos Alam Khan, Irfan A Rather	Nano-sized warriors: zinc chromium vanadate nanoparticles as a dual solution for eradicating waterborne enterobacteriaceae and fighting cancer	Frontiers in Pharmacology	13 Jul, 2023
18	Essia Hannachi, Firdos Alam Khan, Yassine Slimani, Suriya Rehman, Zayneb Trabelsi, Sultan Akhtar, Ebtessam A Al-Suhaimi	Fabrication, characterization, anticancer and antibacterial activities of ZnO nanoparticles doped with Y and Ce elements	Journal of Cluster Science	7 Sept, 2022
19	FH Pottoo, M Salahuddin, FA Khan, WJ Alsaed, BT Albaqshi, JU Rahman, MS Gomaa, I Salama, MN Alomary, S Beigh	Therapeutic enhancing potential of piracetam with diethylstilbestrol in prevention of grand-mal seizures in rats: inhibition of PI3K/Akt/mTOR signaling pathway and IL-1 $\beta$ , IL-6 ...	European Review for Medical & Pharmacological Sciences	15 May, 2023
20	Noor Alrushaid, Firdos Alam Khan, Ebtessam Abdullah Al-Suhaimi, Abdelhamid Elaissari	Nanotechnology in cancer diagnosis and treatment	Pharmaceutics	22 Mar, 2023
21	Sumera Khizar, Noor Alrushaid, Firdos Alam Khan, Nadia Zine, Nicole Jaffrezic-Renault, Abdelhamid Errachid, Abdelhamid Elaissari	Nanocarriers based novel and effective drug delivery system	International Journal of Pharmaceutics	29-Dec-22
22	Essia Hannachi, Firdos Alam Khan, Yassine Slimani, Suriya Rehman, Zayneb Trabelsi, Sultan Akhtar, Ebtessam A Al-Suhaimi	In vitro antimicrobial and anticancer peculiarities of ytterbium and cerium Co-doped zinc oxide nanoparticles	Biology	16-Dec
23	Hamdoon A Mohammed, Suliman A Almahmoud, El-Sayed M El-Ghaly, Firdos Alam Khan, Abdul-Hamid Emwas, Mariusz Jaremko,	Comparative Anticancer Potentials of Taxifolin and Quercetin Methylated Derivatives against HCT-116 Cell Lines: Effects of O-Methylation on Taxifolin and ...	ACS Omega	7-Dec-22



	Fatimah Almulhim, Riaz A Khan, Ehab A Ragab			
24	Wasim Ahmad, Mohammad Azam Ansari, Abdulrhman Alsayari, Dalia Almaghaslah, Shadma Wahab, Mohammad N Alomary, Qazi Mohammad Sajid Jamal, Firdos Alam Khan, Abuzer Ali, Prawez Alam, Abozer Y Elderdery	In vitro, molecular docking and in silico ADME/Tox studies of emodin and chrysophanol against human colorectal and cervical carcinoma	Pharmaceutic als	31-Oct-22
25	Hanan A Aldossary, Suriya Rehman, B Rabindran Jermy, Reem AlJindan, Afra Aldayel, Sayed AbdulAzeez, Sultan Akhtar, Firdos Alam Khan, J Francis Borgio, Ebtessam Abdullah Al-Suhaimi	Therapeutic Intervention for Various Hospital Setting Strains of Biofilm Forming Candida auris with Multiple Drug Resistance Mutations Using Nanomaterial Ag ...	Pharmaceutic s	21-Oct-22
26	Faiza Qureshi, Muhammad Nawaz, Mohammad Azam Ansari, Firdos Alam Khan, Mahmoud M 27Berekaa, Samar A 28Abubshait, Rayyanah Al-Mutairi, Alok K Paul, Veeranoot Nissapatorn, Maria de Lourdes Pereira, Polrat Wilairatana	Synthesis of M-Ag <sub>3</sub> PO <sub>4</sub> , (M = Se, Ag, Ta) Nanoparticles and Their Antibacterial and Cytotoxicity Study	Int. Journal of Mol Sci.	27-Sep-22
27	Faheem Hyder Pottoo, Mohammed Salahuddin, Firdos Alam Khan, Batool Taleb Albaqshi, Mohamed S Gomaa, Fatima S Abdulla, Noora AlHajri, Mohammad N Alomary	Trio-drug combination of sodium valproate, baclofen and thymoquinone exhibits synergistic anticonvulsant effects in rats and neuro-protective effects in HEK-293 cells	Curr. Issues in Mol. Biol.	20-Sep-22
28	Samir Mohamed El Rayes, Gaber El-Enany, Mohamed Sayed Gomaa, Ibrahim Al Ali, Walid Fathalla, Faheem Hyder Pottoo, Firdos Alam Khan	Convenient Synthesis of N-Alkyl-2-(3-phenyl-quinoxalin-2-ylsulfanyl)acetamides and Methyl-2-[2-(3-phenyl-quinoxalin-2-ylsulfanyl)acetylamino]alkanoates	ACS Omega	15-Sep-22
29	Tahani M Alfareed, Yassine Slimani, Munirah A Almessiere, Muhammad Nawaz, Firdos A Khan, Abdulhadi Baykal, Ebtessam A Al-Suhaimi	Biocompatibility and colorectal anti-cancer activity study of nanosized BaTiO <sub>3</sub> coated spinel ferrites	Scientific Reports	19-Aug-22



30	Tahani M Alfareed, Yassine Slimani, Munirah A Almessiere, Sagar E Shirsath, M Hassan, Muhammad Nawaz, Firdos A Khan, Ebtesam A Al-Suhaimi, Abdulhadi Baykal	Structure, magnetoelectric, and anticancer activities of core-shell $\text{Co}_0 \cdot 8\text{Mn}_0 \cdot 2\text{R}_0 \cdot 02\text{Fe}_1 \cdot 98\text{O}_4 @ \text{BaTiO}_3$ nanocomposites (R= Ce, Eu, Tb, Tm, or Gd)	Ceramics International	9-Feb-22
31	Firdos Alam Khan	Emerging Concepts in Endocrine Structure and Functions	Book Chapter Springer	22-Apr-22
32	Ebtesam A Al-Suhaimi, Firdos Alam Khan, AM Homeida	Regulation of male and female reproductive functions	Book Chapter Springer	22-Apr-22
33	Ebtesam A Al-Suhaimi, Meneerah A Aljary, Firdos Alam Khan	Endocrine Pancreas and Glucose Metabolism	Book Chapter Springer	22-Apr-22
34	Ebtesam A Al-Suhaimi, Firdos Alam Khan	Thyroid glands: Physiology and structure	Book Chapter Springer	22-Apr-22
35	Ebtesam A Al-Suhaimi, Firdos Alam Khan	The pituitary gland: functional relationship with the hypothalamus, structure, and physiology	Book Chapter Springer	22-Apr-22
36	Ebtesam A Al-Suhaimi, Firdos Alam Khan	Adrenal glands, pineal gland, and the circadian rhythm: structure and physiology	Book Chapter Springer	22-Apr-22
37	Manel Dhahri, Firdos Alam Khan, Abdul-Hamid Emwas, Rua B Alnoman, Mariusz Jaremko, Nadjet Rezki, Mohamed Reda Aouad, Mohamed Hagar	Synthesis, DFT Molecular Geometry and Anticancer Activity of Symmetrical 2,2'-(2-Oxo-1H-benzo[d]imidazole-1,3(2H)-diyl) Diacetate and Its ...	Materials	30-Mar-22
38	Firdos Alam Khan	Stem cell bioreactors: design, structure, and operation of stem cell bioreactors	Springer	30-Mar-22
39	Hessah M Almuzafar, Hanin M Ahmed, Najla N AlDuhaisan, Asma M Elsharif, Hanan Aldossary, Suriya Rehman, Sultan Akhtar, Firdos Alam Khan	Synthesis of 29H, 31H-phthalocyanine and chloro (29H, 31H-phthalocyaninato) aluminum derivatives showed anti-cancer and anti-bacterial actions	J. Saudi Chemical Society	31-Jan-22
40	Muhammad Bello Usman, Shreesh Ojha, Saurabh Kumar Jha, Dinesh Kumar Chellappan, Gaurav Gupta, Sachin Kumar Singh, Kamal Dua, Shubhadeep Roychoudhury, Neeraj	Biological databases and tools for neurological disorders	J. Integrative Neuroscience	28-Jan-22





	Kumar, Firdos Alam Khan, Harish Dureja, Vijay Upadhye, Flavia Zacconi, Pragya Prasanna, Kavindra Kumar Kesari, Ghulam Md Ashraf, Athanasios Alexiou, Niraj Kumar Jha			
41	M Dhahri, FA Khan, AH Emwas, RB Alnoman, M Jaremko, N Rezki, MR Aouad, M Hagar	Synthesis, DFT molecular geometry and anticancer activity of symmetrical 2, 2'-(2-oxo-1H-benzo [d] imidazole-1, 3 (2H)-diyl) diacetate and its arylideneacetohydrazide ...	Materials	30-Mar-22
42	Firdos Alam Khan	Stem Cell Production	Springer	30-Mar-22
43	Razan Aldahhan, Dana Almohazey, Firdos Alam Khan	Emerging trends in the application of gold nanoformulations in colon cancer diagnosis and treatment	Seminars in Cancer Biology	26-Nov-21
44	MA Almessiere, FA Khan, IA Auwal, M Sertkol, N Tashkandi, I Rehan, A Baykal	Green synthesis, characterization and anti-cancer capability of Co <sub>0</sub> . 5Ni <sub>0</sub> . 5Nd <sub>0</sub> . 02Fe <sub>1</sub> . 98O <sub>4</sub> nanocomposites	Arabian J. of Chemistry	15-Nov-21
45	Sultan Akhtar, SM Asiri, Firdos Alam Khan, ST Gunday, Arfa Iqbal, Noor Alrushaid, OA Labib, GR Deen, FZ Henari	Formulation of gold nanoparticles with hibiscus and curcumin extracts induced anti-cancer activity	Arabian J. of Chemistry	27-Nov-21
46	Firdos A Khan, Reem Albalawi, Faheem H Pottoo	Trends in targeted delivery of nanomaterials in colon cancer diagnosis and treatment	Medicinal Research Reviews	23-Apr-21
47	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	28-Feb-22
48	RK Aldakheel, MA Gondal, MA Almessiere, S Rehman, MM Nasr, Z Alsalem, FA Khan	Spectrochemical analysis using LIBS and ICP-OES techniques of herbal medicine (Tinnevely Senna leaves) and its anti-cancerous/antibacterial applications	Arabian Journal of Chemistry	27-Sep-21
49	Faheem Hyder Pottoo, Mohammed Salahuddin, Firdos Alam Khan, Marwa Abdullah Al Dhamen, Walaa Jafar Alsaeed, Mohamed S Gomaa, Chittibabu Vatte, Mohammad N Alomary	Combinatorial regimen of carbamazepine and imipramine exhibits synergism against grandmal epilepsy in rats: inhibition of pro-inflammatory cytokines and pi3k/akt/mTOR signaling ...	Pharmaceuticals	22-Nov-21





50	Ebtesam Abdullah Al-Suhaimi, Muhammad Nawaz, Firdos A Khan, Meneerah Abdulrahman Aljafary, Abdulhadi Baykal, Abdelgadir M Homeida	Emerging trends in the delivery of nanoformulated oxytocin across Blood-Brain barrier	Int J. of Pharmaceutics	28-Sep-21
51	Faheem Hyder Pottoo, Mohammed Salahuddin, Firdos Alam Khan, Fadhel Alomar, Marwa Abdullah Al Dhamen, Abrar Fouad Alhashim, Hawra Hussain Alqattan, Mohamed S Gomaa, Mohammad N Alomary	Thymoquinone potentiates the effect of phenytoin against electroshock-induced convulsions in rats by reducing the hyperactivation of m-TOR pathway and neuroinflammation ...	Pharmaceutics	8-Nov-21
52	Firdos Alam Khan	Synthesis, Characterization, and Biological Screening of Nanomaterials and Biomaterials	Combinatorial Chemistry & High Throughput Screening	1-Nov-21
53	Munirah A Almessiere, Yassine Slimani, Suriya Rehman, Firdos A Khan, Murat Sertkol, Abdulhadi Baykal	Green synthesis of Nd substituted Co-Ni nanospinel ferrites: a structural, magnetic, and antibacterial/anticancer investigation	Journal of Physics D: Applied Physics	29-Oct-21
54	MB Usman, S Bhardwaj, S Roychoudhury, D Kumar, A Alexiou, P Kumar, RK Ambasta, P Prasher, S Shukla, V Upadhye, FA Khan, R Awasthi, MD Shastri, SK Singh, G Gupta, DK Chellappan, K Dua, SK Jha, J Ruokolainen, KK Kesari, Shreesh Ojha, Niraj Kumar Jha	Immunotherapy for Alzheimer's disease: current scenario and future perspectives	The journal of prevention of Alzheimer's disease	15-Sep-21
55	Mohammad Azam Ansari, Sultan Akhtar, Mohd Ahmar Rauf, Mohammad N Alomary, Sami AlYahya, Saad Alghamdi, MA Almessiere, Abdulhadi Baykal, Firdos Khan, Syed Farooq Adil, Mujeeb Khan, Mohammad Rafe Hatshan	Sol-Gel Synthesis of Dy-Substituted [Ni. sub. 0.4][Cu. sub. 0.2][Zn. sub. 0.4](Fe. sub. 2-x)[Dy. sub. x][O. sub. 4] Nano Spinel Ferrites and Evaluation of Their Antibacterial ...	International Journal of Nanomedicine	31-Aug-21
56	Suriya Rehman, Munirah A Almessiere, Suhailah S Al-Jameel, Uzma Ali, Yassine	Designing of $\text{Co}_{0.5}\text{Ni}_{0.5}\text{Ga}_x\text{Fe}_{2-x}\text{O}_4$ ( $0.0 \leq x \leq 1.0$ ) Microspheres via	Pharmaceutics	26-Jun-21



	Slimani, Nedaa Tashkandi, Najat S Al-Saleh, Ayyar Manikandan, Firdos Alam Khan, Ebtesam A Al-Suhaimi, Abdulhadi Baykal	Hydrothermal Approach and Their Selective Inhibition on the Growth of Cancerous and ...		
57	F Alahmari, S Rehman, M Almessiere, FA Khan, Y Slimani, A Baykal	Synthesis of Ni <sub>0.5</sub> Co <sub>0.5</sub> -x Cd <sub>x</sub> Fe <sub>1.78</sub> Nd <sub>0.02</sub> O <sub>4</sub> (x ≤ 0.25) nanofibers by using electrospinning technique induce anti-cancer and anti-bacterial activities	Journal of Biomolecular Structure and Dynamics	13-May-21
58	Suriya Rehman, Munirah A Almessiere, Ebtesam A. Al-Suhaimi, Mehwish Hussain, Maha Yousuf Bari, Syed Mehmood Ali, Suhailah S Al-Jameel, Yassine Slimani, Firdos Alam Khan, Abdulhadi Baykal	Ultrasonic Synthesis and Biomedical Application of Mn <sub>0.5</sub> Zn <sub>0.5</sub> Er <sub>x</sub> Y <sub>x</sub> Fe <sub>2-2x</sub> O <sub>4</sub> Nanoparticles	Biomolecules	8-May-21
59	H Tombuloglu, FA Khan, Munirah Abdullah Almessiere, S Aldakheel, A Baykal	Synthesis of niobium substituted cobalt-nickel nano-ferrite (Co <sub>0.5</sub> Ni <sub>0.5</sub> Nb <sub>x</sub> Fe <sub>2-x</sub> O <sub>4</sub> (x ≤ 0.1) by hydrothermal approach show strong anti-colon cancer activities	Journal of Biomolecular Structure and Dynamics	7-Apr-21
60	Suhailah S Al-Jameel, Suriya Rehman, Munirah A Almessiere, Firdos A Khan, Yassine Slimani, Najat S Al-Saleh, Ayyar Manikandan, Ebtesam A Al-Suhaimi, Abdulhadi Baykal	Anti-microbial and anti-cancer activities of Mn <sub>0.5</sub> Zn <sub>0.5</sub> Dy <sub>x</sub> Fe <sub>2-x</sub> O <sub>4</sub> (x ≤ 0.1) nanoparticles	Artificial Cells, Nanomedicine, and Biotechnology	23-Jun-21
61	Firdos Alam Khan	Types and classification of stem cells	Springer International Publishing	15-Sep-21
62	Firdos Alam Khan	Stem Cells in Regenerative Medicine: Clinical Trials	Springer International Publishing	15-Sep-21
63	Firdos Alam Khan Mohammad Azam Ansari, Sarah Mousa Maadi Asiri, Mohammad A. Alzohairy, Mohammad N. Alomary, Ahmad Almatroudi	Biofabricated Fatty Acids-Capped Silver Nanoparticles as Potential Antibacterial, Antifungal, Antibiofilm and Anticancer Agents	Pharmaceuticals	9-Feb-21
64	Mohamed M. Ibrahim Ahmed Aboelmagd, Samir M. El Rayes, Mohamed S. Gomaa, Walid Fathalla, Ibrahim A. I.	Synthesis and Cytotoxic Activity of Novel Metal Complexes Derived from Methyl-3-(4-chlorophenyl)-3-hydroxy-2,2-	ACS Omega	15-Feb-21



	Ali, Mohamed S. Nafie, Faheem H. Pottoo, Firdos Alam Khan	dimethylpropanoate as Potential CDK8 Kinase Inhibitors		
65	Mohamed E. Khalifa A. Aboelmagd, S. M. El Rayes, M. S. Gomaa, Ibrahim A. I. Ali, Walid Fathalla, F. H. Pottoo, Firdos A. Khan	Synthesis and antiproliferative activity of new N-allyl quinoxalinecarboxamides and their O-regioisomer	New Journal of Chemistry	1-Jan-21
66	Abdulahadi Baykal Suhailah S. Al-Jameel, Munirah A. Almessiere, Firdos A. Khan, Nedaa Taskhandi, Yassine Slimani, Najat S. Al-Saleh, Ayyar Manikandan, Ebtesam A. Al-Suhaimi	Synthesis, Characterization, Anti-Cancer Analysis of Sr <sub>0.5</sub> Ba <sub>0.5</sub> Dy <sub>x</sub> Sm <sub>x</sub> Fe <sub>8-2x</sub> O <sub>19</sub> (0.00 ≤ x ≤ 1.0) Microsphere Nanocomposites	Nanomaterials	11-Mar-21
67	Dana Almohazey Firdos Alam Khan, Razan Aldahhan	Impact of gold nanoparticles on colon cancer treatment and diagnosis	Nanomedicine	19-Mar-21
68	Firdos Alam Khan and P. K. Sahoo Jayanti Mishra, Bhumika Kumar, Mukesh Pandey, Faheem Hyder Pottoo, Faizana Fayaz	Carbon Nano Tubes: Novel drug delivery system in amelioration of Alzheimer's disease	Combinatorial Chemistry and High Throughput Screening	1-Nov-21
69	Faheem Hyder Pottoo, Md Noushad Javed, Jawad Ur Rahman, Tareq Abu-Izneid, Firdos Alam Khan	Targeted delivery of miRNA based therapeutics in the clinical management of Glioblastoma Multiforme	Seminars in cancer biology	14-Apr-20
70	A Aboelmagd, SM El Rayes, MS Gomaa, Ibrahim AI Ali, Walid Fathalla, FH Pottoo, Firdos A Khan, Mohamed E Khalifa	The synthesis and antiproliferative activity of new N-allyl quinoxalinecarboxamides and their O-regioisomers	New Journal of Chemistry	7-Dec-20
71	Meneerah Abdulrahman Aljafary, Sarah M Asiri, Fadwa M Alkhulaifi, Firdos Alam Khan, Ebtesam Abdullah Al-Suhaimi	Hormones Management as Anticancer Treatment and Protection: Functions and Mechanism of Action	Bentham Science Publishers	21-Dec-20
72	Umair Baig, Mohammad Azam Ansari, MA Gondal, Sultan Akhtar, Firdos Alam Khan, WS Falath	Single step production of high-purity copper oxide-titanium dioxide nanocomposites and their effective antibacterial and anti-biofilm activity against drug-resistant bacteria	Materials Science and Engineering: C	22-Apr-20
73	Abdallah Mohammad Ibrahim, Faheem Hyder Pottoo, Ekta Singh Dahiya, Firdos Alam Khan, JB Senthil Kumar	Neuron-glia interactions: Molecular basis of alzheimer's disease and applications of neuroproteomics	European Journal of Neuroscience	28-May-20



74	Suriya Rehman, Romana Farooq, Rabindran Jermy, Sarah Mousa Asiri, Vijaya Ravinayagam, Reem Al Jindan, Zainab Alsalem, Manzoor A Shah, Zafar Reshi, Hussein Sabit, Firdos Alam Khan	A Wild Fomes fomentarius for Biomediation of One Pot Synthesis of Titanium Oxide and Silver Nanoparticles for Antibacterial and Anticancer Application	Biomolecules	17-Apr-20
75	Firdos Alam Khan	Biotechnology Fundamentals Third Edition	Book Chapter CRC Press	15-Apr-20
76	Firdos Alam Khan	Environmental biotechnology	Book Chapter CRC Press	15-Apr-20
77	Firdos Alam Khan	Proteins and Proteomics	Book Chapter CRC Press	15-Apr-20
78	Firdos Alam Khan	Product Development in Biotechnology	Book Chapter CRC Press	15-Apr-20
79	Firdos Alam Khan	Careers in Biotechnology	Book Chapter CRC Press	15-Apr-20
80	Firdos Alam Khan	Introduction to Biotechnology	Book Chapter CRC Press	15-Apr-20
81	Firdos Alam Khan	Nanobiotechnology	Book Chapter CRC Press	15-Apr-20
82	Firdos Alam Khan	Animal Biotechnology	Book Chapter CRC Press	15-Apr-20
83	Firdos Alam Khan	Microbial Biotechnology	Book Chapter CRC Press	15-Apr-20
84	Firdos Alam Khan	Genes and Genomics	Book Chapter CRC Press	15-Apr-20
85	Firdos Alam Khan	Industrial Biotechnology	Book Chapter CRC Press	15-Apr-20
86	Suriya Rehman, Sarah Mousa Asiri, Firdos Alam Khan, B Rabindran Jermy, Vijaya Ravinayagam, Zainab Alsalem, Reem Al Jindan, Ahsanulhaq Qurashi	Anticandidal and In vitro Anti-Proliferative Activity of Sonochemically synthesized Indium Tin Oxide Nanoparticles	Scientific Reports	24-Feb-20



87	Firdos Alam Khan	Applications of Nanomaterials in Human Health	Book Edited Springer	20-Jun-20
88	Zafar Reshi and Firdos Alam Khan Suriya Rehman, Rabindran Jermy, Sarah Mousa Asiri, Manzoor A. Shah, Romana Farooq, Vijaya Ravinayagam, Mohammad Azam Ansari, Zainab Alsalem, Reem Al Jindan	Using Fomitopsis pinicola for bioinspired synthesis of titanium dioxide and silver nanoparticles, targeting biomedical applications	RSC Advances	28-Aug-20
89	Firdos Alam Khan	Major Nano-based Products: Nanomedicine, Nanosensors, and Nanodiagnostics	Book Chapter Springer	21-Jun-20
90	Firdos Alam Khan	Nanomaterials: Types, Classifications, and Sources	Book Chapter Springer	21-Jun-20
91	Firdos Alam Khan	Synthesis of Nanomaterials: Methods & Technology	Book Chapter Springer	21-Jun-20
92	Ahmed Mostafa and Abdulhadi Baykal Reem K. Aldakheel, Suriya Rehman, Munirah A. Almessiere, Firdos A. Khan, Mohammed A. Gondal	Bactericidal and In Vitro Cytotoxicity of Moringa oleifera Seed Extract and Its Elemental Analysis Using Laser-Induced Breakdown Spectroscopy	Pharmaceutic als	13-Aug-20
93	Umair Baig, Abbas Saeed Hakeeme M. A. Gondal Sultanand Akhtar, Suriya Rehman, Sarah Mousa Asiri, Firdos Alam Khan	Evaluation of bioactivities of zinc oxide, cadmium sulfide and cadmium sulfide loaded zinc oxide nanostructured materials prepared by nanosecond pulsed laser	Materials Science and Engineering: C, Materials for biological applications	5-Jun-20
94	Sagar E. Shirsath and A. Baykal M. A. Almessiere, Y. Slimani, S. Rehman, Firdos A. Khan, E. Gökçe Polat, A. Sadaqat	Synthesis of Dy-Y co-substituted manganese-zinc spinel nanoferrites induced anti-bacterial and anti-cancer activities: Comparison between sonochemical and sol-gel auto ...	Materials Science and Engineering: C, Materials for biological applications	17-Jun-20
95	Sagar E. Shirsath and A. Baykal M. A. Almessiere, Y. Slimani, S. Rehman, F. A. Khan, Ç. D. Güngüneş, S. Güner	Magnetic properties, anticancer and antibacterial effectiveness of sonochemically produced Ce <sup>3+</sup> /Dy <sup>3+</sup> co-activated Mn-Zn nanospinel ferrites	Arabian Journal of Chemistry	25-Aug-20
96	Firdos A. Khan Ahmed Aboelmagd, Saad H. Alotaibi, Samir M. El Rayes, Gomaa M. Elsayed, Ibrahim A. I. Ali,	Synthesis and Anti proliferative Activity of New N-Pentylquinoxaline carboxamides and Their O-Regioisomer	ChemistrySel ect	16-Nov-20



	Walid Fathalla, Faheem H. Pottoo			
97	Firdos Alam Khan and Faheem Hyder Pottoo Md Noushad Javed, Ekta Singh Dahiya, Abdallah Mohammad Ibrahim, Md. Sabir Alam	Recent Advancement in Clinical Application of Nanotechnological Approached Targeted Delivery of Herbal Drugs	Book Chapter Springer	28-Jul-20
98	Munirah Abdullah Almessiere, AV Trukhanov, FA Khan, Y Slimani, N Tashkandi, VA Turchenko, TI Zubar, DI Tishkevich, SV Trukhanov, LV Panina, A Baykal	Correlation between microstructure parameters and anti-cancer activity of the $[Mn_{0.5}Zn_{0.5}](Eu_xNd_xFe_{2-2x})O_4$ nanoferrites produced by modified sol-gel and ultrasonic methods	Ceramics International	27-Nov-19
99	Firdos Alam Khan, Narimane Lammari, Adeeb Shezad Muhammad Siar, Khulood Mohammed Alkhatir, Sarah Asiri, Sultan Akhtar, Iman Almansour, Widyan Alamoudi, Woroud Haroun, Wahida Louaer, Abdeslam Hassen Meniai, Abdelhamid Elaissari	Quantum dots encapsulated with curcumin inhibit the growth of colon cancer, breast cancer and bacterial cells	Nanomedicine	30-Mar-19
100	S. Rehman, M. A. Almessiere, F. A. Khan	Synthesis and biological characterization of $Mn_{0.5}Zn_{0.5}Eu_xDy_xFe_{1.8-2x}O_4$ nanoparticles by sonochemical approach	Materials Science and Engineering: C, Materials for biological applications	25-Dec-19
101	Samir M El Rayes, Ahmed Aboelmagd, Mohamed S Gomaa, Walid Fathalla, Ibrahim AI Ali, Faheem H Pottoo, Firdos Alam Khan	Newly synthesized 3-(4-chlorophenyl)-3-hydroxy-2, 2-dimethyl-propionic acid methyl ester derivatives selectively inhibit the proliferation of colon cancer cells	RSC advances	28-Feb-20
102	Firdos Alam Khan, Sultan Akhtar, Dana Almohazey, Munther Alomari, Sarah Ameen Almofty, Ibrahim Badr, Abdelhamid Elaissari	Targeted delivery of poly (methyl methacrylate) particles in colon cancer cells selectively attenuates cancer cell proliferation	Artificial Cells, Nanomedicine, and Biotechnology	22-Apr-20
103	Sultan Akhtar, Suriya Rehman, Munirah A Almessiere, Firdos Alam Khan, Yassine Slimani, Abdulhadi Baykal	Synthesis of $Mn_{0.5}Zn_{0.5}Sm_xEu_xFe_{1.8-2x}O_4$ Nanoparticles via the Hydrothermal Approach Induced	Nanomaterials	18-Nov-19





		Anti-Cancer and Anti-Bacterial Activities		
104	Sarah Mousa Asiri, Firdos Alam Khan, Ayhan Bozkurt	Delivery of conjugated silicon dioxide nanoparticles show strong anti-proliferative activities	Applied biochemistry and biotechnology	22-May-19
105	Fariha Shamim, Firdos Alam Khan, Muhammad Taha, Khalid Mohammed Khan	Synthesis and in vitro anti-proliferative capabilities of steroidal thiazole and indole derivatives	Journal of Saudi Chemical Society	16-May-19
106	Samir M El Rayes, Ahmed Aboelmagd, Mohamed S Gomaa, Ibrahim AI Ali, Walid Fathalla, Faheem H Pottoo, Firdos A Khan	Convenient Synthesis and Anticancer Activity of Methyl 2-[3-(3-Phenyl-quinoxalin-2-ylsulfanyl)propanamido]alkanoates and N-Alkyl 3-((3-Phenyl-quinoxalin-2-yl ...	ACS omega	28-Oct-19
107	Munirah Abdullah Almessiere, Y Slimani, M Sertkol, FA Khan, M Nawaz, H Tombuloglu, Ebtesam Abdullah Al-Suhaimi, A Bayka	Ce–Nd Co-substituted nanospinel cobalt ferrites: an investigation of their structural, magnetic, optical, and apoptotic properties	Ceramics International	20-Jun-19
108	Sultan Akhtar, Firdos Alam Khan, Abdullah Buhaimed	Functionalized magnetic nanoparticles attenuate cancer cells proliferation: Transmission electron microscopy analysis	Microscopy Research and Technique	26-Feb-19
109	Madhumitha Kedhari Sundaram, Ritu Raina, Nazia Afroze, Apurva Dhupkar, Naval Preet Kaur, Aditya Arte, Firdos Alam Khan, Arif Hussain	Combinational use of phytochemicals and chemotherapeutic drugs enhance their therapeutic potential on human cervical cancer cells	International Journal of Cancer Management	30-Jun-19
110	Munther Alomari, Dana Almohazey, Sarah Ameen Almoftly, Firdos Alam Khan, Mohammad Al Hamad, Deena Ababneh	Role of lipid rafts in hematopoietic stem cells homing, mobilization, hibernation, and differentiation	Cells	22 Jne 2019
111	Suriya Rehman, Sarah Mousa Asiri, Firdos Alam Khan, B Rabindran Jermy, Hafeezullah Khan, Sultan Akhtar, Reem Al Jindan, Khalid Mohammed Khan, Ahsanulhaq Qurashi	Biocompatible tin oxide nanoparticles: synthesis, antibacterial, anticandidal and cytotoxic activities	ChemistrySelect	10-Apr-19
112	Akhtar, S., Rehman, S., Almessiere, M. A., Khan, F. A., Slimani, Y., & Baykal, A.	Synthesis of Mn <sub>0.5</sub> Zn <sub>0.5</sub> S <sub>m</sub> xEu <sub>x</sub> Fe <sub>1.8-2x</sub> O <sub>4</sub> Nanoparticles via the	Nanomaterials	18-Nov-19





		Hydrothermal Approach Induced Anti-Cancer		
113	Sarah Mousa Asiri, Firdos Alam Khan, Ayhan Bozkurt	Synthesis of chitosan nanoparticles, chitosan-bulk, chitosan nanoparticles conjugated with glutaraldehyde with strong anti-cancer proliferative capabilities	Artificial cells, nanomedicine, and biotechnology	31-Jan-19
114	Firdos Alam Khan, Sultan Akhtar, Dana Almohazey, Munthar Alomari, Sarah Ameen Almofty, Abdelhamid Eliassari	Fluorescent magnetic submicronic polymer (FMSP) nanoparticles induce cell death in human colorectal carcinoma cells	Artificial Cells, Nanomedicine, and Biotechnology	25-Jul-18
115	Firdos Alam Khan, Sultan Akhtar, Sarah Ameen Almofty, Dana Almohazey, Munthar Alomari	FMSP-nanoparticles induced cell death on human breast adenocarcinoma cell line (MCF-7 cells): morphometric analysis	Biomolecules	23-May-18
116	Firdos Alam Khan, Dana Almohazey, Munthar Alomari, Sarah Ameen Almofty	Impact of nanoparticles on neuron biology: current research trends	International journal of nanomedicine	9-May-18
117	Firdos Alam Khan, Dana Almohazey, Munthar Alomari, Sarah Ameen Almofty	Isolation, culture, and functional characterization of human embryonic stem cells: current trends and challenges	Stem cells international	26-Aug-18
118	Firdos Alam Khan, Sultan Akhtar, Dana Almohazey, Munthar Alomari, Sarah Ameen Almofty	Extracts of Clove ( <i>Syzygium aromaticum</i> ) Potentiate FMSP-Nanoparticles Induced Cell Death in MCF-7 Cells	International Journal of Biomaterials	23-Aug-18
119	Dravida S, Pal R, Khanna A, Tipnis SP, Ravindran G, Khan F	The transdifferentiation potential of limbal fibroblast-like cells	Brain Res Dev Brain Res	20-03-2005
120	Khan, FA., Saha, SG., Sarkar, A., and Subhedar, N	$\beta$ -Endorphin in the olfactory system, forebrain and pituitary of the teleost, <i>Clarias batrachus</i> (Linn).	General and Comparative Endocrinology	Feb-1999
121	Khan, FA., Jain, MR., Saha, SG., and Subhedar, N.	FMRFamide-like immunoreactivity in the olfactory system responds to morphine treatment in the teleost <i>Clarias batrachus</i> : Involvement of opiate receptors	General and Comparative Endocrinology	April 1998
122	Subhedar, N., Khan, FA., and Jain, MR.,	Calcitonin-like immunoreactivity in the subcommissural organ and Reissner's fiber in the teleost	Brain Research	April 1997



		<i>Clarias batrachus</i> , frog <i>Rana tigrina</i> and lizard <i>Calotes versicolor</i> .		
123	Burade, VS., Jain, MR., Khan, FA., Saha, SG., and Subhedar, N.	Involvement of corticosteroid-like neurosteroids in pentobarbital-induced sleep	NeuroReport	March 1996
124	Subhedar, N., Deshmukh, MK., Jain, MR., Khan, FA., and Krishna, NS.	Activation of hypothalamic neurons by intraovarian pressure signals in a teleost fish, <i>Clarias batrachus</i> : role of mechanosensitive channels	Brain Behavior & Evolution	Feb 1996
125	Jain, MR., Khan, FA., Krishna, NS., and Subhedar, N.	Intracranial metyrapone stimulates CRF-ACTH axis in the teleost, <i>Clarias batrachus</i> : possible role of neurosteroids	NeuroReport	Aug 1994

### Refereed Scientific Research Papers Accepted for Publication

#	Name of Investigator(s)	Research Title	Journal	Acceptance Date

### Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date
1	Khan, F.A.	In vitro generation of GABAergic neurons from mammalian embryonic stem cells (abstract)	International Society for Stem Cell Research 8th Annual Meeting, June 16-19, 2010, San Diego, California, USA
2	Khan, FA., and Subhedar, N	Calcitonin-like immunoreactivity in the subcommissural organ and Reissner's fiber of the catfish, frog, and lizard (Abstract).	Journal of Neurochemistry, 1997
3	Khan, FA., Jain, MR., Saha, SG., Burade, SG., and Subhedar, N.	Response of GnRH-immunoreactive system in the forebrain of the teleost, <i>Clarias batrachus</i> to opiate treatment. (Abstract). Journal of Neurochemistry 63(Suppl.2),pp. S16.	Journal of Neurochemistry 63(Suppl.2),pp. S16. 1996



### Completed Research Projects

#	Name of Investigator(s) (Supported by)	Research Title	Report Date
1	Firdos Alam Khan (Co-investigator) (RDO Project)	Nano-nano-based detection of cancer	2022
2	Firdos Alam Khan (DSR, IAU)	GABAergic Neurons Derived from Human Cord Blood Stem Cells by Using Nanoparticles	2018-2019
3	Firdos Alam Khan (DSR, IAU)	Method of Generation of Dopaminergic Neurons Derived from Human Cord Blood Stem Cells Using Nanoparticles	2019-2020

### Current Researches

#	Research Title	Name of Investigator(s)
1	Research laboratory reactivation grant by Research & Development & Innovation (RDI), Saudi Arabia	Dr. Jeremy Rabinran, Dr. Sarah Almofty, Dr. Firdos Alam Khan and Dana Almohazey

### Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of the Conference	Extent of Contribution
1	1st International Conference Stem Cell Basics and Clinical Applications	Stem Cells Regenerative & Research Labs Inc. Hyderabad, India in Association with US Consultancy for Applied Research, Illinois, USA on 11th Feb, 2024	Invited lecture
2	World Bio Summit & Expo November	Adult human limbal-corneal tissue possessed the self-renewing and multi-lineage differentiation Capacity” at World Bio Summit & Expo November 02-04, 2015 Dubai, UAE.	Invited lecture
3	4th Middle East Conference on Healthcare Informatics	4th Middle East Conference on Healthcare Informatics on 22-24 April 2013 at Hotel Crown Plaza, Dubai, UAE	Invited lecture



4	9th International Conference on Innovation in Information Technology and Workshop	Organized by College of Information Technology, UAE University, Al Ain, UAE on March 17th, 2013.	Keynote lecture
5	Future of Genetics & Biotechnology Field” organized by First genetics and Biotechnology Conference	First genetics and Biotechnology Conference, held at Zayed University, Dubai, on December 21, 2009	Invited lecture
6	A lecture on: Stem cell therapy for Neurological Disorder” symposia	Bombay Hospital, India to deliver a lecture on: Stem cell therapy for Neurological Disorder” March 2003	Invited lecture

### Membership of Scientific and Professional Societies and Organizations

- Fellow of the Royal Society of Biology (FRSB) (London) (2021-2023)
- International Brain Research Organization (IBRO), France (Life member)
- Society for Neuroscience, USA (1999-2001)
- American Association for the Advancement of Science (AAAS), USA (2000)
- International Society for Stem Cell Research (ISSCR), USA

### Teaching Activities

#### Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Pharmacology (BSc Biotechnology)- Manipal Academy of Higher Education, Dubai, United Arab Emirates	PMY301	3 Credit hours (2 Theory + 1 Lab Session)
2	Business of Biotechnology (BSc Biotechnology)- Manipal Academy of Higher Education, Dubai, United Arab Emirates	BIO301	3 Credits of Theory

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



Pharmacology (PMY301): The course deals with basics of pharmacology, pharmacokinetic, and pharmacodynamics, drug bio distribution, drug excretion, and drug metabolism

Business of Biotechnology (BIO301)- Biobusiness, biotechnology product development, preclinical-to clinical trials, FDA regulation, patent & IPR, Biotechnology companies and products

### Postgraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Biochemistry and Cell Physiology (MSc Biotechnology) Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia	MSBE801	2 Credits (Theory)
2	Stem Cell Biology and Regenerative Medicine (MSc Biotechnology) Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia	MSBE825	1 Credit Theory + 1 Credit Lab session
3	Cell Biology (MSc Biotechnology)- Manipal Academy of Higher Education, Dubai, United Arab Emirates	MS201	3 Credit Theory
4	Cell & Tissue Engineering (MSc Biotechnology)- Manipal Academy of Higher Education, Dubai, United Arab Emirates	MS205	3 Credit Theory

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

1	Biochemistry and Cell Physiology (MSBE801): The aim of the course to understand the structure and function cells and its constituents such as cell membrane, nucleus, endoplasmic reticulum, mitochondria, ribosomes, Golgi bodies, and also try to understand the biochemistry of the cell physiology such as bioenergetics, biological oxidation and chemistry of hormones, metabolism, role of Cytochrome p450, biochemistry of muscle contraction, enzyme kinetics, tools and techniques of biochemistry
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2	Stem Cell Biology and Regenerative Medicine (MSBE825): The course deals with the definition and principle of stem cell biology, stem cells classification, stem cell differentiation, stem cell transplantation, stem cell trials. Stem cell ethical issues, regenerative medicine and how the different types of regenerative medicines are being used in the treatment of various pathological conditions. Stem cell applications, tissue engineering. Project topics include: stem cell biology, stem cell culture, stem cell differentiation and cell survivability and cell toxicity.
3	Cell Biology (MS201): The course deals with structure and function mammalian cells and its constituents such as cell membrane, nucleus, endoplasmic reticulum, mitochondria, ribosomes, Golgi bodies and cell functionality, cell division, apoptosis
4	Cell & Tissue Engineering (MS205): The course deals with regenerative medicine and how the different types of human cells and tissues are used in the regenerative medicines in the treatment of various pathological conditions.

### Course Coordination

#	Course Title and Code	Coordination	Co-coordination	Undergrad.	Postgrad.	From	To
1	MSc Biotechnology (Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia)	Coordinator	-	-	MSc Biotechnology	Jan-2023-	Sept - 2024
2	MSc Biotechnology (Manipal Academy of Higher Education, Dubai, United Arab Emirates)	Coordinator	-	-	MSc Biotechnology	Jan-2009-	June - 2017
3	PhD Biotechnology (Manipal Academy of Higher Education, Dubai, United Arab Emirates)	Coordinator	-	-	PhD Biotechnology	Jan-2013-	June - 2017

### Guest/Invited Lectures for Undergraduate Students

#	Activity/Course Title and Code	Subject	College and University or Program	Date



### Student Academic Supervision and Mentoring

#	Level	Number of Students	From	To
1	Undergraduate Summer Training Program	5	2019	2020
2	High School- Muhaiba and Ibdaa Program	15	2019	2023

### Supervision of Master and/or PhD Thesis

#	Degree Type	Title	Institution	Date
1	MSc Biotechnology	The Impact of Biologically Synthesized Nanoparticles on Colon Cancer Cells: In Vitro Cellular and Morphological Investigation	Imam Abdulrahman Bin Faisal University (Main Supervisor)	2022
2	MSc Biotechnology	The Impact of Gold Nanoparticles on Colon Cancer: An In Vitro Cellular and Molecular Analysis “ at the Department of Stem Cell Research	Imam Abdulrahman Bin Faisal University (Main Supervisor)	2021
3	MSc Nanotechnology	Synthesis, characterization, and anti-cancer activities of rare-earths doped core-shell $\text{Co}_{0.8}\text{Mn}_{0.2}\text{R}_{0.02}\text{Fe}_{1.98}\text{O}_4 @ \text{BaTiO}_3$ (R = Ce, Eu, Gd, Tb, and Tm) magnetoelectric nanoparticles	Imam Abdulrahman Bin Faisal University (Co-Supervisor)	2021
4	PhD (Biotechnology)	Analysis of Dietary Bioactive Compounds as Epigenetic Modifiers in Cancer Prevention	(Manipal Academy of Higher Education, Dubai, United Arab Emirates) (Co-Supervisor)	2020





6	MSc Biotechnology	In vitro cell culture analysis of ozone-induced cell death in human cancer cell line	(Manipal Academy of Higher Education, Dubai, United Arab Emirates) (Main Supervisor)	2010
7	MSc Biotechnology	To study the effect of medical ozone-induced cell death in human cancer cell line mediated by TNF-alpha	(Manipal Academy of Higher Education, Dubai, United Arab Emirates) (Main Supervisor)	2010

### Ongoing Research Supervision

#	Degree Type	Title	Institution	Date
1	PhD (Biochemistry)	Application of nanoformulations on colorectal cancer cells	University of Lyon, France and Imam Abdulrahman Bin Faisal University (Co-Supervisor)	2022 - 2025

### Administrative Responsibilities, Committee and Community Service (Beginning with the most recent)

#### Administrative Responsibilities

#	From	To	Position	Organization
1	2017	2024	Chairperson	Department of Stem Cell Research, IRMC, Imam Abdulrahman Bin Faisal University
2	2005	2017	Chairperson	School of Life Sciences, Manipal Academy of Higher Education, Dubai, United Arab Emirates
3	2014	2017	Chairman	Research & Development Program, Manipal Academy of Higher Education, Dubai Campus, Dubai, UAE
4	2009	2017	Chairman	Biotechnology Conference Committee, Manipal Academy of Higher Education, Dubai Campus, Dubai, UAE
5	2014	2017	Chairman	Biotechnology Program for NAAC Accreditation Committee, Manipal Academy of Higher Education, Dubai Campus, Dubai, UAE

#### Committee Membership



#	From	To	Position	Organization
1	2021	2023	Fellow of Royal Society of Biology	Royal Society of Biology (FRSB) (London)
2	1994	2024	Life Member	International Brain Research Organization (IBRO), France
3	1998	2001	Associate Member	American Association for the Advancement of Science (AAAS)
4	2004	2005	Associate Member	International Society for Stem Cell Research (ISSCR), USA
5	1999	2001	Member	Society for Neuroscience, USA

### Scientific Consultations

#	From	To	Institute	Full-time or Part-time

### Volunteer Work

#	From	To	Type of Volunteer	Organization
1	2006	2017	Organizing blood donation camp	Manipal Academy of Higher Education, Dubai Campus, Dubai, UAE

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

University Teaching & Research; Research Administration; Research Strategies & Planning; Research Thesis, Supervision; Research Papers Reviewing; Journal Editorial Board Member, Books Authoring/Editing; International Research Collaboration; Innovation and Patents; Conference Presentation and Panel Discussion

### Last Update

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