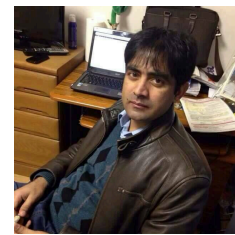


Dr. Azhar Rasul
Assistant Professor
Government College University Faisalabad



Career Objectives: I want to develop my career as a scientist. My target is to improve my professional growth and personal satisfaction by utilizing my skills and abilities to find a novel strategy and innovative treatment of human diseases, especially cancer and neurodegenerative diseases. I want to be the part of a challenging team which strives for the better treatment of these diseases and explores my potential and provides me with the opportunity to enhance my talent with an intention to be an asset to the field of chemical biology.

Personal information

First name/ Surname	Azhar Rasul
Permanent Address	Chah Sheran Walla, Haider Abad (Thal), Tehsil Mankera, Distt. Bhakkar, Punjab Pakistan
Postal Address	C/o Khawar Autos Haider Abad (Thal), Tehsil Mankera, Distt. Bhakkar, Punjab Pakistan
Current Residence	Faisalabad, Pakistan
Date of birth	01-01-1983
Gender	Male
Marital Status	Married
Children	1 (Son)

Education

Institution: Northeast Normal University, Changchun, China

Degree: PhD (Doctor of Philosophy), Major: Cell Biology (Chemical Cancer Biology)

Thesis Title: Isolation, structure elucidation, and evaluation of anti-gastric cancer activity of natural compounds from Traditional Chinese Medicinal herbs and their molecular mechanisms

Date of Graduation: 2012-07-01

Institution: Bahauddin Zakariya University, Multan, Pakistan

Degree: M. Phil (Master of Philosophy), Major: Animal Sciences

Thesis Title: Proximate analysis of female population of wild feather back fish (*Notopterus notopterus*) in relation to body size and condition factor

Date of Graduation: 2008-08-31

Institution: Bahauddin Zakariya University, Multan, Pakistan

Degree: M. Sc (Master of Science), Major: Animal Sciences

Thesis Title: Economics and Marketing of commercial food fishes of Southern Punjab Pakistan

Date of Graduation: 2005-07-31

Institution: Punjab University, Lahore, Pakistan

Degree: B. Sc (Bachelor of Science), Major: Pre-medical group

Date of Graduation: 2002-06-30

Research/Employment History

- (July, 2012-November, 2013): Post-doctoral Research Fellowship. Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, China
- (October, 2013-October, 2014): Assistant Professor, Sub-campus Bhakkar, University of Sargodha, Punjab, Pakistan
- (November, 2013-November, 2015): JSPS Post-doctoral Research Fellow at Antibiotics Lab. Chemical Biology Department, RIKEN, Japan
- (December, 2015-March, 2016): Special Postdoctoral Research (SPDR) at Chemical Biology Research Group. Chemical Biology Department, RIKEN, Japan
- (April, 2016-March, 2017): TBRF (Tokyo Biochemical Research Foundation) Postdoctoral Fellow at Chemical Biology Research Group. Chemical Biology Department, RIKEN, Japan
- (April, 2017- Present): Assistant Professor, Faculty of Science and Technology, Government College University Faisalabad (GCUF), Pakistan

Fellowships / Awards (11)

- Awardee of Travel grant for Young Talent Forum for the 2016 Digestive Disease Week of Guangzhou, China
- Awardee of scholarship for "Rethinking Cancer" Workshop organized by Ross Cagan; 20 – 23 November 2016, Wiston House, UK- (No availed)
- Awardee TBRF (Tokyo Biochemical Research Foundation) Postdoctoral Fellow at RIKEN, 2015, Japan.
- HEC approved PhD Research Supervisor since 2014
- Awardee of JSPS (Japan Society for Promotion of Sciences) Postdoctoral Research Fellow at RIKEN, 2013, Japan.
- Awardee of Postdoctoral Research Fellow at CIAC Chinese Academy of Sciences, 2012, China.
- Awardee of Scholarship and Travel grant (sponsored by F. Hoffman La Roche) WIN Symposium 2012, Paris France.
- Awardee of an incentive award on research publications during PhD studies by Central Research Laboratory of Bethune Second Hospital, Jilin University Changchun, China, 2012.
- Awardee of an overseas PhD scholarship in China from Ministry of Pakistan and China Scholarship Council of China (PhD in Natural and Basic Sciences in China, 2008).
- Awardee of merit scholarship by Bahauddin Zakariya University for M. Phil. Studies, 2006.
- Awardee of an Indigenous PhD scholarship (Phase IV, 2006) from Higher Education Commission of Pakistan (No availed).

Participation in national or international conferences

1. 11th Chinese conference on Cell Biology & Xi'an International Conference on Cell Biology 2009, Xi'an, China
2. International Symposium on Channelotherapy and New Strategies of Drug Discovery 2010, Changchun, China
3. International Workshop on cancer Systems Biology (ICSB). 2011, Jilin University Changchun, China
4. 9th International Symposium on the Chemistry of Natural Compounds, 2011 Urumqi, China
5. 4th International cancer control congress, 2011 Seoul, Korea
6. 4th International WIN Symposium. 2012 Paris France
7. 3rd International Conference on Stem Cells and Cancer (ICSCC-2012): Proliferation, Differentiation

and Apoptosis. 2012, New Delhi, India.

Participation in national or international training workshop

1. 15th Hand on training on modern biotechnology techniques at NIBGE, Faisalabad on April 17-22, 2017
2. Training course on diagnosis of viral diseases at NIAB, Faisalabad on September 17-21, 2017
3. 2-Days Workshop on Flowcytometry: Principles, Applications and Data Analyses at Alpha Genomics Private Limited Islamabad on November 1-2, 2017

Technical skills and competences

- ❖ Cell Culture;
- ❖ Primary Cell Culture;
- ❖ High Through Screening;
- ❖ Flow cytometry (analysis of apoptosis, MMP, ROS, and cell cycle);
- ❖ In vitro Assays;
- ❖ Native Electrophoresis;
- ❖ SDS-PAGE and Western Blotting;
- ❖ Co- Immunoprecipitation;
- ❖ Fluorescence Microscopy;
- ❖ Stable and transient transfection;
- ❖ Transformation; Small and Large Scale Plasmid Purification;
- ❖ Immunostaining;
- ❖ Luciferase/ gene reporter assay;
- ❖ Primer designing;
- ❖ Knock-out mice handling, mice-related work such as mouse embryonic fibroblast culture and immunohistochemistry;
- ❖ Target identification techniques such as DARTS, Cellular Thermal Shift Assay (CETSA) and affinity chromatography;
- ❖ Recombinant protein expression and purification.
- ❖ Bioactive compound isolation by HPLC and library construction

Computer skills and competences

MS word, Excel, Adobe photoshop, SPSS, and EndNotes.

Publications and Presentation List

Total Publications: 31;

Total Impact Factor: ~81;

Total Citations: 823

List of Published Papers

1. Ghulam Hussain, **Azhar Rasul**, Haseeb Anwar, Nimra Aziz, Aroona Razzaq, Wei Wei, Muhammad Ali, Jiang Li, Xiaomeng Li, Role of plant derived alkaloids and their mechanism in neurodegenerative disorders. International Journal of Biological Sciences. **2017**; Accepted. IF: 3.873
2. Iqra Sarfraz, **Azhar Rasul**, Farhat Jabeen, Muhammad Kashif Zahoor, Muhammad Arshad, Muhammad Ali, Fraxinus: a plant with versatile pharmacological and biological activities. Evidence Based Complementary Alternative Medicine (eCAM). **2017**; In Press. IF: 1.740
3. Hui Qin, **Azhar Rasul**, Xin Li, Muqaddas Masood, Guang Yang, Na Wang, Wei Wei, Xi He, Nobumoto Watanabe, Jiang Li, Xiaomeng Li, CD147-induced cell proliferation is associated with Smad4 signal inhibition. Experimental Cell Research. **2017**; In Press. doi: 10.1016/j.yexcr.2017.07.003. IF: 3.546
4. Chunwa Jiang, Muqaddas Masood, **Azhar Rasul**, Wei Wei, Ya Wang, Muhammad Ali, Jiang Li, Xiaomeng Li, Altholactone inhibits constitutive NF- κ B and STAT3 activation and induces reactive oxygen species-mediated apoptosis in prostate cancer DU145 cells. Molecules. **2017**; 22(2), 240. doi: 10.3390/molecules22020240. IF : 2.861
5. Xiaoyan Ma, Fan Yang, Shuli Yang, **Azhar Rasul**, Ting Li, Lianlian Liu, Min Kong, Dongmei Guo, Tonghui Ma. Number and distribution of myofibroblasts and α -smooth muscle actin expression levels in fetal membranes with and without gestational complications. Molecular Medicine Reports. **2015**; 12(2): 2784-92. IF: 1.692.
6. Di W, Khan M, **Azhar Rasul**, Sun M, Sui Y, Zhong L, Yang L, Zhu Q, Feng L, Ma T. Isoalantolactone inhibits constitutive NF- κ B activation and induces reactive oxygen species-mediated apoptosis in osteosarcoma U2OS cells through mitochondrial dysfunction. Oncology Reports. **2015**; doi: 10.3892/or.2014.3368. IF: 2.662.
7. **Azhar Rasul**, Xiaoyan Shen, Bingyu Wang, Bao Liu, Xiaomeng Li, Jilin Tang. Tubeimoside-1 upregulates p21 expression and induces apoptosis and G2/M phase cell cycle arrest in human bladder cancer T24 cells. Bangladesh Journal of Pharmacology. **2014**; 9(4): 595-603. IF: 1.052.
8. **Azhar Rasul**, Jun Di, Faya Martin Millimouno, Mahadev Malhi, Ichiro Tsuji, Muhammad Ali, Jiang Li,

- Xiaomeng Li, Reactive Oxygen Species Mediate Isoalantolactone-Induced Apoptosis in Human Prostate Cancer Cells. *Molecules*, **2013**; 18(8): 9382-9396. IF: 2.861.
9. Nanyang Yang, Bing Zhao, **Azhar Rasul**, Hui Qin, Jiang Li, Xiaomeng Li, PIAS1 modulated Smad2/4 complex activation is involved in zinc-induced cancer cell apoptosis. *Cell Death & Disease*. **2013**; doi: 10.1038/cddis.2013.333. IF: 5.378.
 10. **Azhar Rasul**, Muhammad Khan, Muhammad Ali, Jiang Li, Xiaomeng Li, Targeting apoptosis pathways in cancer with alantolactone and isoalantolactone. *Scientific World Journal*. **2013**; doi: 10.1155/2013/248532. IF: 1.7.
 11. **Azhar Rasul**, Faya Martin Millimouno, Wafa Ali Eltayb, Muhammad Ali, Jiang Li, Xiaomeng Li, Pinoembrin: a novel natural compound with versatile pharmacological and biological activities. *Biomed Research International*. **2013**; doi: 10.1155/2013/379850. IF: 2.476.
 12. **Azhar Rasul**, Bo Yu, Yang Jing Bo, Muhammad Khan, Muhammad Ali, Tonghui Ma. Isoalantolactone, a sesquiterpene lactone, induces apoptosis in SGC-7901 cells via mitochondrial and phosphatidylinositol 3-kinases/Akt signaling pathways. *Archives of Pharmacal Research*. **2013**; 36(10):1262-9. IF: 2.324
 13. **Azhar Rasul**, Rui Bao, Mahadev Malhi, Bing Zhao, Ichiro Tsuji, Xiaomeng Li, Jiang Li. Induction of apoptosis by costunolide in bladder cancer cells is mediated through ROS generation and mitochondrial dysfunction. *Molecules*. **2013**; 18(2): 1418-33. IF: 2.861.
 14. Wei Wei, Jun Di, **Azhar Rasul**, C Zhao, Faya Martin Millimouno, Ichiro Tsuj, Furhan Iqal, Mahadev Malhi, Xiaomeng Li. Jiang Li. Dracorhodin perchlorate induces apoptosis in bladder cancer cells through Bcl-2, Bcl-XL, survivin down-regulation and caspase-3 activation. *Bangladesh Journal of Pharmacology*. **2013**; 8(3), 276-282. IF: 1.052.
 15. Furhan Iqbal, RM Khattak, S Ozubek, MNK Khattak, **Azhar Rasul**, Muhammad Aktas. Application of the Reverse Line Blot Assay for the Molecular Detection of *Theileria* and *Babesia* sp. in Sheep and Goat Blood Samples from Pakistan. *Iranian Journal of Parasitology*. 8(2): 289–295. IF: 0.758
 16. Min Kong, Lianlian Liu, Fei Yi, Muhammad Khan, **Azhar Rasul**, Fan Yang, Xiaoyan Ma, Tonghui Ma. Prevalence of infarct and villous clumps, and the expression of α -smooth muscle actin in the placental basal plate in severe preeclampsia. *Molecular Medicine Reports*. **2012**; 8(4): 1067-73. IF: 1.692.
 17. Muhammad Khan, Ting Li, Muhammad Khalil Ahmad Khan, **Azhar Rasul**, Faisal Nawaz, Meiyun Sun, Yongchen Zheng, Tonghui Ma. Alantolactone induces apoptosis in HepG2 cells through GSH depletion,

inhibition of STAT3 activation and mitochondrial dysfunction. *Biomed Research International*. **2013**; 2013:719858. doi: 10.1155/2013/719858. IF: 2.476.

18. Muhammad khan, Javed Qazi, **Azhar Rasul**, Yongchen Zheng, Tonghui Ma. Evodiamine induces apoptosis in pancreatic carcinoma PANC-1 Cells via NF κ B inhibition. *Bangladesh Journal of Pharmacology*. **2013**; 8: 8-14. IF: 1.052.
19. **Azhar Rasul**, Chuan Ding, Xiaomeng Li, Muhammad Khan, Yi Fei, Muhammad Ali, Tonghui Ma, Dracorhodin perchlorate Inhibits PI3K/Akt and NF- κ B Activation, Up-regulates the Expression of p53, and Enhances Apoptosis. *Apoptosis* **2012**; 17(10): 1104-19. IF: 3.833.
20. **Azhar Rasul**, Bo Yu, Zhang Kun, Muhammad Khan, Furhan Iqbal, Tonghui Ma, Hong Yang. Magnolol, a natural compound induces apoptosis of human gastric adenocarcinoma SGC-7901 cells via the mitochondrial and PI3K/Akt signaling pathways. *International J Oncology*. **2012**; 40(4): 1153-61. IF: 3.079
21. **Azhar Rasul**, Bo Yu, Zhang Kun, Muhammad Khan, Hong Yang, Tonghui Ma. Cytotoxic effect of evodiamine in human gastric adenocarcinoma SGC-7901 cells via simultaneous induction of apoptosis and autophagy. *Oncology Report*. **2012**; 27(5): 1481-1487. IF: 2.662.
22. **Azhar Rasul**, Saima Parveen, Tonghui Ma. Costunolide: A Novel Anti-Cancer Sesquiterpene Lactone (Review). *Bangladesh Journal Pharmacology*. **2012**; 7: 6-13. IF: 1.052.
23. Muhammad khan, Fei Yi, **Azhar Rasul**, Ting Li, Nan Wang, Hongwen Gao, Rong Gao, Tonghui Ma. Alantolactone induces apoptosis in glioblastoma cells via GSH depletion, ROS generation and mitochondrial dysfunction, *IUBMB Life* **2012**; 64(9): 783-94. IF: 3.141.
24. Muhammad Khan, Yu Bo, **Azhar Rasul**, Ali Al Shawi, Fei Yi, Hong Yang, Tonghui Ma. Jaceosidin Induces Apoptosis in U87 Glioblastoma Cells through G2/M phase Arrest. *Evid Based Complement Alternat Med*. **2012**; doi: 10.1155/2012/703034. IF: 1.740.
25. Muhammad Khan, Chuan Ding, **Azhar Rasul**, Fei Yi, Ting Li, Hongwen Gao, Rong Gao, Lili Zhong, Kun Zhang, Xuedong Fang, Tonghui Ma. Isoalantolactone Induces Reactive Oxygen Species Mediated Apoptosis in Pancreatic Carcinoma PANC-1 Cells. *Int J Biol Sci* **2012**; 8(4): 533-547. IF: 3.873.
26. Muhammad Khan, Bin Zheng, Fei Yi, **Azhar Rasul**, Zhuyi Gu, Ting Li, Hongwen Gao, Javed Iqbal Qazi, Hong Yang, Tonghui Ma. Pseudolaric Acid B induces caspase-dependent and caspase-independent apoptosis in U87 glioblastoma cells. *Evid Based Complement Alternat Med*. **2012**; doi: 10.1155/2012/957568. IF: 1.740.

27. **Azhar Rasul**, Tonghui Ma, Augmentation of TRAIL-induced apoptosis by Tubeimoside-1 in human gastric cancer cells via inhibition of PI3K/Akt, and NF- κ B signaling pathways. Abstract Published in *Annal of Oncology*. **2012**. IF: 11.855.
28. Jing Shen, Xiaoyan Ma, Fei Yi, **Azhar Rasul**, Tonghui Ma. Increased expression levels of vitronectin in maternal-fetal interface of placenta in early-onset severe preeclampsia. *Molecular Medicine Reports*. **2012**; doi: 10.3892/mmr.2012.1141. IF: 1.692.
29. **Azhar Rasul**, Runmin Song, Wei Wei, Yoshikazu Nishino, Ichiro Tsuji, Xiaomeng Li, Jiang Li, Tubeimoside-1 inhibits growth via the induction of cell cycle arrest and apoptosis in human melanoma A375 cells. *Bangladesh Journal of Pharmacology*, **2012**; 7 (3): 150-156. IF: 1.052
30. RM Khattak, Shah Ali, Muhammad Jahangir, MN Khan, **Azhar Rasul**, Furhan Iqbal. Prevalence of ectoparasites in wild and domesticated grey (*Francolinus pondicerianus*) and black partridges (*Francolinus francolinus*) from Khyber Pakhtoonkhwa Province of Pakistan. *Pakistan Journal of Zoology*. **2012**; 44 (5), 1239-1244. IF: 0.4
31. **Azhar Rasul**, Muhammad Khan, Bo Yu, Tonghui Ma, Hong Yang. Xanthoxyletin, a Coumarin Induces S Phase Arrest and Apoptosis in Human Gastric Adenocarcinoma SGC-7901 Cells. *Asian Pac J of Cancer Prevention* **2011**; 12 (5): 1219-1223. IF:

Oral Presentations

Azhar Rasul, Bo Yu, Zhang Kun, Muhammad Khan, Tonghui Ma, Hong Yang, Cytotoxic effect of evodiamine in human gastric adenocarcinoma SGC-7901 cells via simultaneous induction of apoptosis and autophagy, 9th International Symposium on the Chemistry of Natural Compounds, 2011 Urumqi, Xinjiang, China (Oral Presentation).

Azhar Rasul, Reprogramming of Tumor Metabolism: Selective Target for Cancer Therapy, Young Talent Forum for the 2016 Digestive Disease Week of Guangzhou, China (Oral Presentation).

Poster Presentations

Azhar Rasul, Bo Yu, Kun Zhang, Long-Fei Yang, Muhammad Khan, Tonghui Ma, Hong Yang, Enhancement of Docetaxel Anticancer Activity by Tubeimoside-1 in Human Gastric Cancer via Mitochondrial, PI3K/Akt, and NF- κ B Signaling Pathways, 4th International Cancer Control Congress, Seoul, South Korea; 2011 (Poster

Presentation).

Azhar Rasul, Tonghui Ma, Augmentation of TRAIL-induced apoptosis by Tubeimoside-1 in Human Gastric Cancer Cells via inhibition of PI3K/Akt, and NF- κ B Signaling Pathways, 4th International WIN Symposium, Paris, France; 2012 (Poster Presentation).

Book Chapter

Azhar Rasul and Tonghui Ma (2013). Natural Compounds and Their Role in Autophagic Cell Signaling Pathways, Autophagy - A Double-Edged Sword - Cell Survival or Death?, Dr. Yannick Bailly (Ed.), ISBN: 978-953-51-1062-0, InTech, DOI: 10.5772/55447.

Ijaz Rasul, , Farrukh Azeem, Muhammad Hussnain Siddique, Saima Muzammil, **Azhar Rasul**, Anam Munawar, Muhammad Afzal, Muhammad Amjad Ali, Habibullah Nadeem (2017). Algae biotechnology: A green light for engineered algae. “ALGAE-BASED POLYMERS, BLENDS AND COMPOSITES” to be published by “Elsevier”

List of Submitted Papers:

1. **Azhar Rasul**, Makoto Kawatani, Makoto Muroi, Yushi Futamura, Harumi Aono, Miho Tanaka, Hiroyuki Osada, Discovery and characterization of novel microtubule disrupter by MorphoBase and ChemProteoBase Profiling. Submitted to Biochemical Journal.
2. **Azhar Rasul**, Makoto Kawatani, Makoto Muroi, Yushi Futamura, Amit Subedi, Hiroyuki Osada, Identification and characterization of novel small-molecule inhibitor of DNA topoisomerase I. Submitted to BMB Reports.
3. **Azhar Rasul**, Makoto Kawatani, Kondoh, Hiroyuki Osada, Discovery of selective inhibitors of malic enzyme 2, novel therapeutic target for cancer metabolism, by chemical array screening. Submitted to Cell Chemical Biology.
4. **Azhar Rasul**, Muhammad Ali, Hiroyuki Osada, Imperatorin: A multifunctional natural compound with potential anti-cancer, anti-oxidant and anti-inflammatory activities (Review). Submitted to International Journal of Biological Sciences.
5. **Azhar Rasul**, Muqaddas Masood, Ghazala Kaukab, Ghulam Hussain, Wei Wei, Muhammad Ali, Jiang Li, Xiaomeng Li, Pharmacological activities of osthole: an update on its antitumor function. Submitted to International Journal of Biological Sciences.

6. Bushra Nageen, Azhar Rasul, Ghulam Hussain, Farhat Jabeen, Tahira Younis, Iqra Sarfraz, Jassia Bukhari, Muhammad Ali, Jaceosidin: A Novel Natural Flavone with Promising Anti-inflammatory and Anti-cancer Effects. Submitted to Evidence Based Complementary Alternative Medicine (eCAM).
7. Maria Javed¹, Azhar Rasul^{1*}, Ghulam Hussain¹, Farhat Jabeen¹, Muhammad Kashif Zahoor, Muhammad Ali, Harmine and its derivatives: Biological activities and therapeutic potential in human diseases. Submitted to Bangladesh Journal of Pharmacology (BJP).

Invited Talks at National and International Conference/ Forums/Seminars

- Young Talent Forum for the 2016 Digestive Disease Week of Guangzhou, China
- Seminar at School of Life Sciences, Dalian Medical University (DMU), Dalian, China, 2016

Self-assessment

I have more than ten year's research experience in the field of cancer chemical biology. Four years of hard work during my PhD has let me become the person who has the ability to handle the different cellular and molecular biology techniques. Besides this, my performance has been improved as one of a basic science researcher. I think my greatest strongpoint is the excellent adaptability. I can acclimatize myself to the new circumstances in a short time and exert all my strengths towards work. I believe that the good professional ability is the foundation of achievement and the problem handling. The ability of study and the spirit of innovation guarantee my adaptability to various work environments. I also believe that this is a higher requirement for the field of the scientific research. The independent life since childhood developed my endurance and the spirit of toughness. Motility during pressure ensures my ability of facing difficulties. In addition, I am also a good cooperator and team leader. Obtaining the success is my greatest satisfaction.

Professional Contributions

- **Editor:** Peak Journal of Biotechnology
<http://www.peakjournals.org/journals/pjb/board.html>
- **Editorial Board Member:** Asian Journal of Natural & Applied Sciences (AJSC), Japan
<http://www.ajsc.leena-luna.co.jp/board.php>

- **BBE2017 as a TPC (Technical Program Committee) member:** The 2nd International Conference on Biomedical and Biological Engineering (BBE2017), Guilin, China, May 26th-28th, 2017.

<http://www.bbe2017.org/?op=committee>

Scientific Societies Memberships

- European Society for Medical Oncology (ESMO) Switzerland
- Asian Pacific Organization of Cancer Prevention (APOCP) Korea
- National Academy of Young Scientist (NAYS) Pakistan
- Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEEES) Membership NO.: 100624, Thailand.
- Society for Medicinal Plant and Natural Product Research (G.A.) Gesellschaft für Arzneipflanzen- und Naturstoff-Forschung e.V, Muenster, Germany
- Federation of European Biochemical Societies (FEBS), Membership Number: 01046940, UK
- Biochemical Society; Membership Number: 01046940, UK
- International Society for Infectious Diseases (ISID), USA
- Middle East Molecular Biology Society (MEMBS); Membership Number: A001759, Doha, Qatar.

Research Areas of Interest

- Cancer stem cells: new target for drug discovery
- Tumor hypoxia: a target for selective cancer therapy
- Cancer cell metabolism: novel and selective target for cancer therapy
- Development of tumor-stromal cell interactions targeting agents for tumor metastasis therapeutics
- Production of Recombinant proteins-rDNA Technology

Research Projects/Grants

- **Title of the Project:** Targeting NF κ B and STAT3 by small molecules
Funded By: Japan Society for Promotion of Science (JSPS), Tokyo Japan (3.0 million JPY)
Role as: Researcher
Status: Completed
- **Title of the Project:** Targeting cancer cell metabolism by small molecules

Funded By: Tokyo Biochemical Research Foundation (TBRF), Tokyo Japan (3.0 million JPY)

Role as: Researcher

Status: Completed

- **Title of the Project:** "The relationship between protein SUMO system and prostate cancer", "Screening and identification of natural compounds on SUMO pathways in prostate cancer".

Funded by: Ministry of Science and Technology (MOST), China.

Role as: Member

Status: In progress

- **Title of the Project:** Development of Potent and Selective Tumor Glycolysis Inhibitors from Natural Products as Lead Structures.

Funded by: The Nagai Foundation Tokyo, Japan (600,000JPY)

Role as: Principal Investigator (PI)

Status: In progress

Supervision:

PhD students (As a supervisor): 02; PhD students (As a member): 02; MPhil Students: 08

List of PhD Students

Sr. No.	Name of student (Session)	Registration/ Roll No.	Thesis Title	Role As.	Status
1	Ammara Riaz (2016-2019)	2012-GCUF-01400 /3816	Screening, Identification and <i>In vitro</i> Biological evaluation of	Supervisor	In progress
2	Syed Kashif Shahid Kamran (2016-2019)	2012-GCUF-01400 /3818	Potential of natural products against nerve injury	Supervisor-II	In progress
3	Nagina Rehman (2015-2018)	2015-GCUF- 1008 /	Investigation of Zinc Oxide nanoparticles (ZnO-NPs) induced toxicity in Male Sprague Dawley Rats and antagonistic effect of <i>Allium</i> <i>sativum</i> and <i>Camellia sinensis</i> extracts	Member	In progress
4	Mehwish		Investigation of Zinc Oxide nanoparticles (ZnO-NPs) induced toxicity in Male Sprague Dawley Rats and antagonistic effect of <i>Allium</i> <i>sativum</i> and <i>Camellia sinensis</i> extracts	Member	In progress

List of MPhil Students

Sr. No.	Name of student (Session)	Registration/ Roll No.	Thesis Title	Role As.	Status
1	Fariha Rukhsar (2016-2018)	2014-GCUF-01210 8 /3837	Purification of Human 6-Phosphogluconate Dehydrogenase (h6PGD) from <i>Escherichia coli</i> and screening of 6PGD inhibitors by enzymatic activity assay	Supervisor	In progress
2	Salman Akram (2016-2018)	2016-GCUF-00223 /3834	Evaluation of Plant extracts as supplementary feeds on gene expression of GH, IGF-1, growth performance and body composition in <i>Cirrhinus mrigala</i>	Supervisor	In progress
3	Bisma Saleem (2016-2018)	2016-GCUF-09730 /100230	Evaluation of <i>in vitro</i> cytotoxic activity of Eriocalyxin B against Human Triple negative Breast cancer (TNBC), MDA-MB231 Cells	Supervisor	In progress
4	Aiza Ajaz (2016-2018)	2012-GCUF-13451 /100220	Study on cytotoxic potential of mushroom derived natural compound, Hispolon, against Human Hepatocellular Carcinoma HepG2 cells	Supervisor	In progress
5	Bushra Nageen (2016-2018)	2012-GCUF-01401 /3818	Cloning, expression and purification of Human Aldolase A (hmALDOA) protein and screening for ALDOA inhibitors by enzymatic assay	Supervisor-II	In progress
6	Maria Javed (2016-2018)	2012-GCUF 01414 /3825	Identification of novel Glucose 6-Phosphate Dehydrogenase inhibitors through pharmacophore-based virtual screening and NADH-based enzymatic assay	Supervisor-II	In progress
7	Rashid Adil (2016-2018)	2016-GCUF-01027 6/100216	Investigation of anti-cancer activity and its underlying molecular mechanism of <i>Citrullus colocynthis</i> plant extract against hepatic cancer cells	Supervisor-II	In progress
8	Muhammad Azam (2016-2018)	2016-GCUF-00223 /3834	Evaluation of cytotoxic effect of <i>Calotropis procera</i> and its underlying molecular mechanism on Hepatocellular carcinoma, HepG2 cells	Supervisor-II	In progress
9	Iqra Sarfraz (2016-2018)	2012-GCUF-01400 /3816	Molecular detection of voltage gated sodium channel gene (Vgsc) mutation and associated enzyme modulation in Dengue vector <i>Aedes aegypti</i>	Member	In progress

PhD Students as a Member

1. Shab Noor
2. Sana

PhD Student (in progress)
PhD Student (in progress)

Teaching and course training

- Course developed:

Zoo-?- Chemical Biology (at the Dept. of Zoology, GCUF, Faisalabad)

- Courses taught:

Government College University, Faisalabad, Pakistan)

- **Zoo-704**-Advances in Recombinant DNA Technology and associated Lab- (MPhil/MS level)
- **Zoo-704**-Advances in Biotechnology and associated Lab- (MPhil/MS level)
- **Zoo-756**-Research Methodology (MSc level)
- **Zoo-301**- Principle in Animal Life and associated Lab (BS level)

(at the Dept. of Zoology, Government College University, Faisalabad, Pakistan)

Administrative Responsibilities

- ❖ In-Charge Research Lab at Department of Zoology, Government College University, Faisalabad
- ❖ In-Charge Cell Culture Lab at Department of Zoology, Government College University, Faisalabad
- ❖ Member of Internal PhD Assessment Committee at Department of Zoology, Government College University, Faisalabad
- ❖ Member of MS/PhD Thesis Scrutiny Committee at Department of Zoology, Government College University, Faisalabad

Collaborations

- ❖ Prof. Dr. Li Xiaomeng Li, Key Laboratory of Molecular Biology, Institute of Genetics and Cytology, School of Life Sciences, Northeast Normal University (NENU), Changchun Jilin Province, China
- ❖ Prof. Dr. Tong-Hui Ma, School of Basic Life Sciences, Dalian Medical University (DMU), Dalian Liaoning Province, China
- ❖ Dr. Maria Pascule, Associate Research Scientist, Centre for Drug Discovery, Northeastern University, 360 Huntington Avenue Boston, MA
- ❖ Dr. Lai Ngit Shin, Senior Lecturer, Institute for Research in Molecular Medicine (INFORMM)

Universiti Sains Malaysia (USM), 11800 USM, Penang, Malaysia

- ❖ Prof. Dr. Hiroyuki Osada, Director, Chemical Biology Research Group (CBRG), RIKEN, Wakoshi, Saitama, Japan

References

Reference No: 1. Name: Dr. Tonghui Ma Position: Dean & Professor

Address: School of life sciences, Dalian medical University, Dalian, P.R. China

Phone No: 0086-18686347968, Email: math1080@gmail.com

Reference No: 2. Name: Dr. Muhammad Ali Position: Vice Chancellor & Professor

Address: Government College University Faisalabad (GCUF), Punjab, Pakistan.

Phone No: 0092-3315657685, Email: alisam007@hotmail.com; vc@gcuf.edu.pk

Reference No: 3. Name: Dr. Ying Huang Position: Professor

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Additional information: <http://www.ncbi.nlm.nih.gov/pubmed?term=Azhar%20Rasul>;

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