



## DR. HAMID MUKHTAR

### PERSONAL DETAILS

- ❖ **Father's Name:** Ch. Mukhtar Ali
- ❖ **Home Address:** House # 23, Block D, Punjab University Employees Housing Scheme (PUEHS) Town 2, Lahore Pakistan.
- ❖ **Work Address:** Institute of Industrial Biotechnology, Government College University, Lahore-54000, Pakistan.
- ❖ **E-mail:** [hamidwaseer@yahoo.com](mailto:hamidwaseer@yahoo.com) ; [hamidmukhtar@gcu.edu.pk](mailto:hamidmukhtar@gcu.edu.pk)
- ❖ **Telephone:** +92 333-4245581; Fax: 042- 99211634
- ❖ **CNIC #** 35202-2906136-5
- ❖ **Date of birth:** June 22,1972
- ❖ **Present Status:** Professor of Biotechnology
- ❖ **Research Interests:** Bioprocess Technology / Protein Chemistry / Bioremediation.

### PUBLICATION STATS

- ❖ **Impact Factor** 350
- ❖ **Total Citations** 4300 (Google Scholar)
- ❖ **h-index** 35
- ❖ **i10-index** 110

### ACADEMIC QUALIFICATION

- ❖ M.Sc. (Botany). **1995**. 1<sup>st</sup> position from Government College, Lahore.
  - ❖ Ph.D. (Botany / Biotechnology). **2006**. "Production of Alkaline Protease from
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*Bacillus subtilis* and its Application in Leather Processing”

- ❖ Post-Doc (Harvard Medical School, Harvard University, USA) **2010-11** “Genome Engineering in Human Induced Pluripotent Stem Cells”

**HONOURS/AWARDS**

- ❖ Won Fulbright Post-Doctoral Award in 2010
- ❖ Best University Teacher Award 2014

**PATENTS**

- ❖ Ikram-ul-Haq, Fatima Akram, **Hamid Mukhtar**. 2015. A novel hyperthermophilic and glucose tolerant  $\beta$ -glucosidase from *Thermotoga naphthophila* with highest (ever reported) specific activity submitted to IPO, The Patent Office, Govt. of Pakistan (Patent application No. 122/2015).
- ❖ Ikram-ul-Haq, Fatima Akram, **Hamid Mukhtar**, Ali Nawaz. 2017. Submitted to IPO, The Patent Office, Govt. of Pakistan (Application No. 247/2017).
- ❖ Bioprocess for the production of taxol from *Eurotium rubrum*” Umar Farooq Gohar, **Hmaid Mukhtar** and Muhammad Zia Ul Haq (2023) Submitted to IPO. The Patent Office, Govt. of Pakistan, Application No. 150/2023.

**RESEARCH PROJECTS AWARDED/COMPLETED**

1. Biosynthesis of alkaline proteases by *Bacillus sp.* and its application in leather industry. 2004-2006 (Awarded by GC University Lahore; completed as Co- PI).
2. Enhanced Production and Down Stream Processing of Taxol from Indigenous endophytic Fungi. 2016. (Awarded by HEC at total cost of Rs.1,554,638).
3. Genomic analysis of proteins involved in Focal Segmental Glomerulosclerosis. 2017. (Awarded by HEC at a cost of Rs.495,000/-) [As Co-PI]
4. Establishment of Microbial Culture Bank at Institute of Industrial Biotechnology. 2017-18. (Awarded by GCU at a total cost of Rs.295,000)
5. Chromium uptake by Biofilms and planktonic cells of bacteria isolated from the indigenous environment. 2017. (Awarded by HEC at a cost of Rs.476,430/- completed as Co-PI).

6. Green synthesis of nanoparticles and their applications for the immobilization of commercially important enzymes. 2017. Awarded by HEC, Pakistan worth Rs.480,000/- (As Co-PI).
7. Isolation of endophytic fungi for the production of podophyllotoxin 2019-20 (Awarded by HEC at a cost of Rs 490,000 as Co-PI)
8. Development of oxide based efficient and inexpensive coating materials for electrodes of bioelectrochemical systems to enhance their performance regarding simultaneous wastewater treatment and bioelectricity generation. 2023-2026. (Awarded by HEC @Rs. 4272400/- As Co-PI).
9. Medicinal potential and chemical characterization of *Cannabis* strains available in Pakistan. 2023-2025 (Awarded by [HEC@Rs.4263000/-](#) as Co-PI)

#### BOOKS AUTHORED/EDITED

- 1) Biology for class 9 (English Medium) published by Khalid Book Depot, Urdu Bazar, Lahore
- 2) Biology for class 9 (Urdu Medium) published by Khalid Book Depot, Urdu Bazar, Lahore
- 3) Biology Practical Note Book for F.Sc. (I & II) 2009 published by Khalid Book Depot, Urdu Bazar, Lahore.
- 4) Biology Practical Notebook for 9<sup>th</sup> & 10<sup>th</sup> (2007) Published by Alif Publishing House, Urdu Bazar, Lahore.
- 5) A<sup>+</sup> Current Biology (Objective Type) for Class 11 (2006) Published by Ch. Ghulam Rasul Publishers, Urdu Bazar, Lahore.
- 6) A<sup>+</sup> Current Biology for Class 11 (2005) Published by Ch. Ghulam Rasul Publishers, Urdu Bazar, Lahore.
- 7) A<sup>+</sup> Current Biology for Class 12 (2005) Published by Ch. Ghulam Rasul Publishers, Urdu Bazar, Lahore.

#### BOOK CAPTIONS

- 1) Muhammad Uzair Javed, **Hamid Mukhtar**, Tehreem Mahmood. **2024**.  
Applications of Pyhcoremediation Technologies for Wastewater

- Treatment *In* Phycoremediation of Wastewater Edited by Maulin P. Shah, Günay Yıldız Töre. CRC Press (Taylor Francis Group), eBook ISBN: 9781003390213
- 2) Sania Sehreen and **Hamid Mukhtar. 2024.** Floating Treatment Wetlands (FTW) for Sustainable Industrial Wastewater Treatment *In* Microbial Bioremediation and Multiomics Technology for Sustainable Development Edited by Fuad Ameen, Sartaj Ahmad Bhat and Vineet Kumar, ISBN:978-1-83767-271-4, **Royal Society of Chemistry.**
  - 3) Quratulain, Ali Nawaz, **Hamid Mukhtar**, Ikram ul Haq and Vasudeo Zambare. **2023.** Rice straw: a potential substrate for bioethanol production *In* Green Approach to Alternative Fuel for a Sustainable Future Edited by Maulin P. Shah, ISBN: 978-0-12-824318-3, **Elsevier Publishers.**
  - 4) Tooba Touqeer, Waheed Miran, Muhammad Waseem Mumtaz, and **Hamid Mukhtar. 2022.** Design and Configuration of Microbial Fuel Cells *In* Microbial Fuel Cells for Environmental Remediation *edited by* Akil Ahmad, Mohamad Nasir Mohamad Ibrahim, Asim Ali Yaqoob, Siti Hamidah Mohd Setapar, ISBN 978-981-19-2681-5 (eBook), <https://doi.org/10.1007/978-981-19-2681-5>, **Springer Nature**
  - 5) *Mehmooda Munazir, Rahmatullah Qureshi, Mubashrah Munir, and Hamid Mukhtar. 2022.* Role of Phytoremediation as a Promising Technology to Combat Environmental Pollution *In* Phytoremediation for Environmental Sustainability Edited by Ram Prasad, ISBN 978-981-16-5620-0 ISBN 978-981-16-5621-7 (eBook) <https://doi.org/10.1007/978-981-16-5621-7>, **Springer Nature**
  - 6) **Book Chapter:** Khadija Qadoos, Ali Nawaz, **Hamid Mukhtar. 2021.** Advances in Lignocellulosic Biomass Pretreatment Strategies *In* Advanced Energy Technologies and Systems, Edited by Artur Zaporozhets, Springer Nature Switzerland.
  - 7) Tooba Touqeer, Muhammad Waseem Mumtaz and **Hamid Mukhtar. 2021.** Lipase-Immobilized Magnetic Nanoparticles: Promising Nanobiocatalysts for Biodiesel Production *In* Nano- and Biocatalysts for

- Biodiesel Production, First Edition. Edited by Avinash P. Ingle. John Wiley & Sons Ltd. Published 2021 by John Wiley & Sons Ltd.
- 8) **Book Chapter:** Umar Farooq Gohar, Zinnia Shah, Javaria Sarwar, Hiba Akram and **Hamid Mukhtar**, **2021**. Recent Advances in Biotechnology in Animal Health *In* Veterinary Pathobiology & Public Health, Unique Scientific Publishers.
- 9) **Book Chapter:** Mabroor Hassan, Muhammad Irfan Khan, Muhammad Waseem Mumtaz and **Hamid Mukhtar**. **2021**. Energy and Environmental Security Nexus in Pakistan *In* Energy and Environmental Security in Developing countries, Springer International Publishing.
- 10) **Book Chapter:** U. F. Gohar, I. Iqbal, Z. Shah, **H. Mukhtar**, M. Zia-Ul-Haq. **2021**. COVID-19: Recent Developments in Therapeutic Approaches, *In*: Zia-Ul-Haq, M., Bin-Jumah, M., Othman, S., Henidi, H.A. (Eds.), Alternative Medicine Interventions for COVID-19. Springer International Publishing.
- 11) **Book Chapter:** Composition of *Nigella sativa* Seeds. **2020**. **Hamid Mukhtar**, Muhammad Waseem Mumtaz, Tooba Tauqeer, and Syed Ali Raza *In* Black cumin (*Nigella sativa*) seeds: Chemistry, Technology, Functionality, and Applications, Springer Nature Switzerland AG 2021.
- 12) **Book Chapter:** Green Synthesis of Biodiesel Using Microbial Lipases by Aroosh Shabbir, **Hamid Mukhtar**, Muhammad Waseem Mumtaz, and Umer Rashid *In* Applications of Nanotechnology for Green Synthesis edited by Inamuddin and Abdullah M. Asiri (**2020**) Springer Nature Switzerland AG 2020.
- 13) **Book Chapter:** Microbial Alkaline Proteases: Production and Applications in Leather Industry by **Hamid Mukhtar** *In* Microbial Catalysis (Vol 1), **2019**. Nova Science Publishers, New York, USA.
- 14) **Book Chapter:** Biodiesel Production Through Chemical and Biochemical Transesterification: Trends, Technicalities and Future Perspectives *In* Clean Energy for Sustainable Development edited by Mohammad G.

Rasul, Abul Kalam Azad, Subhash C. Sharma. **2017**. Academic Press (Elsevier), ISBN 978-0-12-805423-9, <http://dx.doi.org/10.1016/B978-0-12-805423-9.00015-6>

#### GenBANK SUBMISSIONS

1. Haq, I. U., Manzoor, Z., Nawaz A., **Mukhtar, H.** and Aftab M. N. **2016**. *Wickheramomyces anomalus* partial gene sequence. Accession No. KT883963.
2. Hussain, A., **Mukhtar, H.** and Aftab M.N. **2016**. *Bacillus megaterium* strain IIB187 16S ribosomal RNA gene, partial sequence. Accession No. KX014809.
3. Hussain, A., **Mukhtar, H.** and Aftab M.N. **2016**. Accession No. KX214608.
4. **Mukhtar, H.**, Gohar, U. F., Haq, I. U. and Nawaz, A. **2017**. *Aspergillus ruber* strain UH275 small subunit ribosomal RNA gene, partial sequence Accession No. KY249382.
5. Marium Munir, Roheena Abdullah, Ikram-ul-Haq, **Hamid Mukhtar** and Ali Nawaz. **2017** GenBank Accession No. MG 772816.
6. Shabbir, A. and **Mukhtar, H.** **2018**. *Bacillus pumilus* strain AH-19 16S ribosomal RNA gene, partial sequence. GenBank: MG256021.1
7. Shabbir, A. and **Mukhtar, H.** **2018**. *Aspergillus terreus* strain F-2 small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene, and internal transcribed spacer 2, complete sequence; and large subunit ribosomal RNA gene, partial sequence. GenBank No. MG256022.1
8. **Hamid Mukhtar.** **2019**. *Geobacillus stearothermophilus* strain IIB-5 16S ribosomal RNA gene, partial sequence. GenBank Accession No. MH923508
9. **Mukhtar, H.** and Mushtaq, Z. **2020**. *Pichia cecembensis* isolate 190716-027\_C09\_HM\_2\_P9\_NS8.ab1 small subunit ribosomal RNA gene, partial sequence. GenBank Accession No. MN900530
10. Mushtaq, Z. and **Mukhtar, H.,** **2020**. *Torulaspora delbrueckii* isolate HM2 P-1 small subunit ribosomal RNA gene, partial sequence. GenBank Accession No. MN932368.
11. Mushtaq, Z. and **Mukhtar, H.** **2020**. *Torulaspora delbrueckii* isolate HM2 P-2 small subunit ribosomal RNA gene, partial sequence. GenBank Accession No.

MN932369.

12. **Mukhtar, H.**, Hameed, U., Tanveer, A. and Qandeel, G. 2023. *Bacillus smithii* strain UIB1 16S ribosomal RNA gene, partial sequence. GenBank accession number OR739416

#### CONFERENCES/SYMPOSIA ORGANIZED

1. 6<sup>th</sup> International Conference on Advances in Biosciences (ICABS-2024) 18-19 April, 2024 organized by Biological Society of Pakistan at GC University, Lahore (As Organizing Secretary)
2. International Conference on Energy, Environment and Storage of Energy, 19-21 November, 2020 organized by Erciyes University, Turkey (as Member International Scientific Committee)
3. 3<sup>rd</sup> International Conference on Biosciences (ICBS 2018) May 9-11, 2018 at GC University Lahore (As co-organizer)
4. 14<sup>th</sup> National and 5<sup>th</sup> International Conference of Botany held at University of Karachi, Pakistan from January 15-18, 2016 (As member of Organizing Committee)
5. 2<sup>nd</sup> International Conference on Biotechnology for Sustainable Development held on 26-28<sup>th</sup> November, 2014 at GC University, Lahore (As Organizing Secretary).
6. National Seminar on “Biomannufacture Technology of Enzymes for detergents and Leather Industries” April 20-21, 2007 at PCSIR Complex, Lahore (as member organizing committee).
7. International Conference on Opportunities in Industrial Biotechnology held from 17-19 January 2006 at GC University Lahore (as one of the main organizers and received **Letter of appreciation from HEC**).
8. 2<sup>nd</sup> National Conference on Biology organized by Biological Society of Pakistan held on 22-24 April 2004 in GCU Lahore (as member organizing committee).
9. 1<sup>st</sup> National Conference of Biology March 28-30, 2002 at Biology Block, Government College Lahore (as member organizing committee).
10. Symposium on Biotechnology for Sustainable Development Nov. 23-24, 1997 at Government College, Lahore (as member organizing committee).

### TRAINING WORKSHOPS ORGANIZED

1. Training Workshop on Biosafety & Biosecurity For Young Researchers, April 23rd , 2019 at GC University, Lahore (As Principal organizer)
2. 2nd National Workshop on Basic Tools in Bioinformatics: Molecular Modelling, 7-8th March, 2019 at GC University, Lahore (As Principal organizer)
3. Two days training workshop on “Fermenter Studies & End-Product Analysis by HPLC” held on 29-30th June, 2015 at GC University, Lahore.

### MEMBER EDITORIAL/ADVISORY BOARD OF SCIENTIFIC JOURNALS

1. Member Editorial Board of Protein Science and Engineering [[Editorial Team \(acad-pub.com\)](#)] 2023 – date
2. Member Editorial Board of Probe-Soil Science and Section Editor of Soil Microorganisms [[Editorial Team \(usp-pl.com\)](#)] 2023 – date
3. Member, Editorial Board as Review Editor of Food Chemistry (specialty section of Frontiers in Chemistry and Frontiers in Nutrition) [[Frontiers in Nutrition | Food Chemistry](#)] (2021 – date)
4. Academic Editor, BioMed Research International (<https://www.hindawi.com/journals/bmri/>) (2020 – date)
5. Member Editorial Board, Energy, Environment and Storage, [ENENSTRG](#) (2000 to date).
6. Subject Editor Journal of Botanical Research and Applications (JBRA) <http://jbra.ethnobot.org/index.php/home/about/editorialTeam> (2020 to date)
7. Managing Editor, Biologia-Lahore ISSN:0006-3096 [<http://www.biospk.com>] (2017 – date)
8. Academic Editor, International Journal of Biological & Chemical Research (<http://scienceassistinternational.org/editorial-Board.php?nid=46>) Jan 2020....
9. Editor, Arab Journal of Basic and Applied Sciences, Special Issue: COVID-19 Research and Analysis, 2020
10. Member Advisory Board RADS Journal of Biological Research & Applied Sciences



11. Journal of Bacteriology and Mycology (May 2017 – date)
12. European Journal of Bioinformatics (2016 – date)
13. Editor, Biologia (Lahore) (2011-2012)
14. Associate Editor- The International Journal of Biotechnology Applications, ISSN: 0975–2943, (2010-2012)
15. Associate Editor – The International Journal of Bioinformatics Research, ISSN: 0975–3087, (2011-2012)
16. International Journal of Agro Veterinary and Medical Sciences (2010-2012)
17. International Journal of Chemical Sciences (2008-date)
18. Journal of Medicinal Plants Research ([www.academicjournals.org/jmpr](http://www.academicjournals.org/jmpr)) (2007- 2013)
19. Scientific Journals International (Biology Section) (2007 to date)
20. Research Journal of Agriculture and Biological Sciences (2006-date)
21. Asian Journal of Biochemistry (2006-date)
22. Biotechnology (2006-date)
23. Journal of Biological Sciences (2006-date)
24. Pakistan Journal of Biological Sciences (2006-date)
25. Research Journal of Microbiology (2006-date)

#### **PROFESSIONAL POSITIONS/FELLOWSHIPS**

1. National Representative IOBB (International Organization for Biotechnology and Bioengineering) since 2006
2. Life Fellow Pakistan Botanical Society since 2005
3. Senior Member APCBEES (Asia Pacific Chemical, Biological & Environmental Engineering Society; [www.cbees.org](http://www.cbees.org)) since 2012
4. Honorary Member, National Academy of Young Scientists (NAYS) since 2014
5. Secretary FABA (Federation of Asian Biotech Associations) Pakistan Chapter (2014 – date).
6. Lifetime Full Member “International Society of Development and Sustainability (ISDS)” since 2016. (Membership ID: M13110370).
7. Member, Technical Committee on Halal Foods for Pakistan Standards and

- Quality Controls, PSQCA, Pakistan (2014 – date).
8. E-member Society of Chemical Industry (SCI) (Jan 2015 to date)
  9. Member SILAE (Società Italo-Latinoamericana di Etnomedicina) Since 2014
  10. Member National Academic Committee of National Testing Services (NTS) since 2012.
  11. Joint Secretary, Pakistan Botanical Society (2014-2016)
  12. Member Association of Biosafety for Australia and New Zealand (ABSANZ) Jan 2017 – July 2018.
  13. Member, European Peptide Society (2017 – date)
  14. Member, Amnesty International (2016 – date)
  15. Member, The Science Advisory Board (2017 – date)
  16. Member Chinese Chemical Society (Feb 2021-.....).
  17. Member, American Society for Microbiology (Membership No. 200328397)

#### **MEMBER STATUTORY BODIES**

1. Member, National Standards Committee of Agriculture and Food Products, PSQCA (2023-.....)
2. Member, Board of Advanced Studies & Research (BASR), University of Sialkot (2023-24)
3. Member, National Steering Committee on the Establishment of Centre of Industrial Biotechnology at Arid University, Rawalpindi (2021-23)
4. Chairman, Technical Committee on Biotechnology for Pakistan Standards and Quality Controls, PSQCA, Pakistan (2014-date).
5. Member, Committee to Improve Quality and Promotion of Research Journal constituted by PHEC (October 2020.....)
6. Member Syndicate, GC University, Lahore (2020-21)
7. Member, National Core Group on Biotechnology (Feb. 2019 to date...)
8. Member, Technical Committee on Research Management on Sustainable Development (RMSD) for Pakistan Standards and Quality Controls, PSQCA, Pakistan (2020 – date).

9. Member Board of Studies, Department of Biological Sciences, Virtual University of Pakistan (2016-2022)
10. Member Selection Board, Kinnaird College, Lahore (2016-2021).
11. Member Board of Studies, School of Biological Sciences, University of the Punjab, Lahore
12. Member Board of Studies, Department of Biotechnology, Kinnaird College, Lahore.
13. Member Board of Studies, Department of Science, University of Home Economics, Lahore.
14. Member Board of Studies, Department of Zoology, University of Gujrat, Gujrat.
15. Member ISO Technical Committee of PSQCA, Pakistan (2017 – date)
16. Member, ISO/Technical Committee 198 “Sterilization of Health Care Products” (2017 – date).

#### **CONFERENCES/ SEMINARS ATTENDED**

1. International Conference on Accreditation and Internationalization in South Asian HEIs held at HEC, Islamabad on June 03, 2024.
2. 3<sup>rd</sup> International Congress on Biological & Health Sciences, 14-16 April, 2023, Afyon Kotacep University, Turkey (As Plenary Speaker and Member, International Organizing Committee).
3. 2nd International Conference on Energy, Environment and Storage of Energy, Sep 1-3, 2022 at Erciyes University, Kayseri / Turkey (As Plenary Speaker and Member, International Technical Committee).
4. International Conference on New Trends in Biological Sciences, March 21-22, 2022 at University of Okara (as invited speaker).
5. 4<sup>th</sup> National Symposium on Advances in Biotechnology, March 2-3, 2022, Department of Bioinformatics & Biotechnology, GC University, Faisalabad.
6. 4<sup>th</sup> International Symposium on Advances in Molecular Biology of Plants and Health Sciences, December 23-24, 2021 at Centre of Excellence in Molecular Biology, University of the Punjab (chaired a session).
7. International Postgraduate Conference on Science & Technology (IPCoST21), 1 -

- 2 December 2021 at University Selangor, Malaysia (As keynote Speaker).
8. Conference on Recent Advances in Applied Biosciences (CRAABS) 30-31th March, 2021, at Lahore Garrison University, Pakistan. (As plenary speaker and session chair).
  9. International Webinar "COVID-19: Biochemical Perspectives And Preventive Measures, Jan 27-28, 2021 at University of Gujrat, Pakistan (As invited speaker)
  10. International Conference on Energy, Environment and Storage of Energy (ICEESEN 2020) by Ericyes University held on 19-21 Nov, 2020 at Kayseri, Turkey (Chaired a Session).
  11. 14<sup>th</sup> International conference on Chemistry and its role in Development (ICCRD'14), Mansoura-Hurghada, Egypt, 25-29 March, 2019 (Chaired a session and made a presentation).
  12. 3rd International Symposium on Advances in Molecular Biology of Plants and Health Sciences held in CEMB, University of the Punjab from 19-21 December 2018 (chaired a session).
  13. 1st International Conference on Natural Sciences"(ICNS) held on 4-5 December, 2018 at Govt. College of Women, Gulberg Lahore (as a keynote speaker).
  14. International Conference of Biochemistry, Biotechnology and Biomaterials held University of Agriculture, Faisalabad from December 09-11, 2018 (as a keynote speaker and chaired a plenary session).
  15. Natural Sciences at the Interface of Climate Change, Food Security and Sustainability (NSICFSS)", going to be held on October 24 to 26, 2018 at University of Kotli Azad Jammu and Kashmir (as a keynote speaker).
  16. 1st International Symposium on Tissue Engineering: Building Linkages (Clinicians, Industry & Scientists) held at COMSATS, Lahore on 25th September, 2018 (as a keynote speaker).
  17. International Conference on Innovation and Commercialization in Biotechnology, 25-26th April, 2018 at PCSIR Laboratories Complex, Lahore (As a Keynote Speaker).
  18. Seminar on Bioreactor Design and Operation for Cultivation, 26th February, 2018 at Taj Samudra Hotel, Colombo, Sri Lanka.

19. 7th Annual ABSANZ conference on Biosafety and Biocontainment conference  
30 October – 3 November 2017 at Sea World Resort and Conference Centre, Gold Coast, QLD.
20. Seminar on “Recent Trends in the Applications of Biotechnology for Functional Foods & Nutraceuticals” Oct 2, 2016 at Universiti Putra Malaysia. (as a keynote speaker).
21. International Agricultural Development Seminar, Sep 1 – 2, 2017 at Linshu, Shandong, China.
22. Seminar on “Chromatography-A Century Long Innovative Journey..... held on 6<sup>th</sup> August, 2015 at Pearl Continental Hotel, Lahore.
23. “D-8 Expert Group Meeting on Halal Sector Development” 27<sup>th</sup> to 28<sup>th</sup> April, 2015 at Islamabad organized by Ministry of Science & Technology (participated as an expert).
24. International Conference on Bioenergy: Challenges & Opportunities in Pakistan held on 20-21 November, 2014 at University of South Asia.
25. 4<sup>th</sup> International & 13<sup>th</sup> National Conference of Botany held 26-28<sup>th</sup> August, 2014 at SBBU, Sheringal, Upper Dir (Made two oral presentations).
26. One day Seminar on Green Chemistry organized by University of Sargodah on April 30, 2014 (as an invited speaker and delivered lecture on Green fuels)
27. BioAsia 2014 held on 17-19 February, 2014 in Hyderabad, India (invited as Secretary FABA, Pakistan Chapter).
28. 33<sup>rd</sup> Pakistan Congress of Zoology (International) held on April 2-4, 2013 at Convention Centre, Islamabad (made one oral presentation).
29. National Symposium on “Chemical Handling, Utilization, Waste Disposal & Health Safety” held on January 09, 2013 at Institute of Chemical & Biological Sciences, University of Gujrat (as Resource Person and delivered lecture on Biochemical Safety).
30. “BioMethods” held from July 14-15, 2011 at Harvard Medical School, Boston, MA, USA.
31. Cambridge Biotech Day “Advances in Proteomics and Genomics” held on March 31, 2011 at Boston Marriott Cambridge, MA, USA.

32. “Discoverx Technology Symposium” held on May 10<sup>th</sup>, 2011 at Boston Marriott Cambridge, MA, USA.
33. “Harvard Genetics Retreat” held from Feb 28-March 01, 2011 at Broad Institute Cambridge, MA, USA.
34. Bioprocess Asia Pacific held from 26<sup>th</sup> -28<sup>th</sup> July, 2010 at Intercontinental Hotel, Singapore (As invited Speaker and Expert).
35. 28<sup>th</sup> Pakistan Congress of Zoology, March 18-20, 2008 at GC University, Faisalabad (one presentation).
36. International Conference of Plant Scientists from 21-24 April, 2008 at University of Agriculture, Faisalabad (delivered a Plenary Lecture).
37. 35<sup>th</sup> All Pakistan Science Conference held during December 20-23, 2008 in University of Karachi, Pakistan (Made one presentation).
38. International Conference on Recent Advances in Agriculture Biotechnology organized by National Commission on Biotechnology from 18-19 March, 2008 at DreamLand Motel, Islamabad (Made one Presentation).
39. National Seminar on “Biomanufacture Technology of Enzymes for detergents and Leather Industries” April 20-21, 2007 at PCSIR Complex, Lahore and made two presentations.
40. 4<sup>th</sup> International Biotechnology Symposium (IBS) & 1<sup>st</sup> Pakistan-China–Iran International Conference on Biotechnology, Bioengineering and Biophysical Chemistry (ICBBB-2007) held from November 4 –8, 2007 in University of Sindh, Jamshoro, Pakistan and made two presentations.
41. 3<sup>rd</sup> International Conference on Plant Pathology from 19-21 November, 2007 at Department of Mycology & Plant Pathology, Punjab University, Lahore.
42. 9<sup>th</sup> National Conference of Plant Scientists held in University of Sindh, Jamshoro from 13 to 15 Feb, 2006 and made two presentations.
43. International Conference on Opportunities in Industrial Biotechnology held from 17-19 January 2006 at GC University Lahore.
44. 1<sup>st</sup> International conference on Biotechnology and Informatics held from 10-12 April, 2006 in BUITMS Quetta and made two presentations.
45. 2<sup>nd</sup> National Conference on Biology organized by Biological Society of Pakistan

- held on 22-24 April 2004 in GCU Lahore.
46. 2<sup>nd</sup> International Conference on the Application of Artificial Intelligence in Engineering and Technology, organized by Universiti Malaysia Sabah, Malaysia from 2-5 August 2004 (made one presentation).
  47. Seminar on Sustainable Use of Water Resources and Book Launching ‘Water and New Technologies “March 26, 2003” at G.C. University, Lahore, Pakistan.
  48. 7<sup>th</sup> International Conference “Trends in Biochemistry and Molecular Biology, April 2-5, 2003” organized by Pakistan Society for Biochemistry and Molecular Biology at Department of Biochemistry, University of the Punjab, Quaid-e-Azam Campus, Lahore and made one presentation.
  49. International Conference on Bioprocessing and Bioengineering held in University Malaysia, Sabah on 27<sup>th</sup> to 29<sup>th</sup> August 2003 and made 2 presentations.
  50. 4<sup>th</sup> National conference of plant pathologists held in University of Arid Agriculture, Rawalpindi on 14<sup>th</sup>-16<sup>th</sup> October 2003.
  51. 2<sup>nd</sup> International Conference on Chemistry and its products in Doha, Qatar on 6<sup>th</sup>-9<sup>th</sup> December 2003 and made two presentations.
  52. 1<sup>st</sup> National Conference of Biology, March 28-30, 2002 at Biology Block, Government College Lahore and made one presentation.
  53. 7<sup>th</sup> National Conference of Plant Scientists “November 14-16, 2000” at Department of Botany, University of the Punjab, Quaid-e-Azam Campus, Lahore and made one presentation.
  54. 2<sup>nd</sup> National Symposium on Plant Tissue Culture and Genetic Engineering from 1-3 June 1999, at NARC, Islamabad and made one presentation.
  55. Symposium on Biotechnology for Sustainable Development Nov. 23-24, 1997 at Government College, Lahore and made three presentations.

#### WORKSHOPS/TRAINING COURSES ATTENDED

1. Quality Assurance Framework by HEC at FC College Lahore .....
2. CCIB workshop on Green Biomanufacturing of Future Foods organized by Tianjin Institute of Industrial Biotechnology, China on July 6, **2023** (as a resource person).

3. Elsevier-HEC Workshop on Journal indexing in Scopus at Higher Education Commission of Pakistan, on Thursday 21<sup>st</sup> January **2021**.
4. Increasing Biosecurity at Tissue Culture Collections Workshop, hosted by CRDF Global, at Imperial Hotel, Copenhagen, Denmark from September 16-19, **2019**.
5. Increasing Biosecurity at Tissue Culture Collections Workshop, hosted by CRDF Global, at Movenpick Hotel, Amsterdam, Netherlands from August 13-17, **2018**.
6. Two Days Professional Workshop on Risk Assessment and Emergency Response to Chemical, Biological and Environmental Hazards at Workplace, 27-28<sup>th</sup> March, 2018 at University of Gujrat, Pakistan (As a Resource Person)
7. PPE and Laboratory Biosafety, October 31, 2017 organized by ABSANZ at Gold Coast, Queensland, Australia.
8. One-day Training Workshop on “Approaching towards comprehensive elimination of Persistent Organic Pollutants (Pesticides) in Pakistan” organized by UNDP & Ministry of Climate Change, Pakistan on September 12, **2017** in Lahore.
9. Workshop on Tissue Culture Collection, Jan 22 to 26, **2017** organized by CRDF Global in Amsterdam, Netherlands.
10. Seminar on Agricultural Biotechnology for Developing Countries (Aug 19 – Sep. 8, **2016**) organized by NATESC, Ministry of Agriculture, Beijing, China.
11. Training course on “How to respond to reviewers' comments” May 23, **2015** by Researcher Academy, Elsevier.
12. Two days training workshop on “Fermenter Studies & End-Product Analysis by HPLC” held on 29-30<sup>th</sup> June, **2015** at GC University, Lahore (As Resource Person for Hands on Training on HPLC).
13. Training course on “Peer review in Asia: special tips for Reviewers” on May 23, 2015 by Researcher Academy, Elsevier.
14. Workshop on Biodiesel Technology: processing, potential feedstock, future prospects and challenges, 5-6<sup>th</sup> November, 2012 at University of Sargodha (Participated as Resource Person).
15. One Day National Technical Workshop on Air Pollution Assessment at University of Gujrat on June 07, 2012 (participated as Resource Person).



16. International workshop on Industrial Biotechnology at COMSTECH, Islamabad in July 2012.
17. Workshop on “Effective Scientific Writings” held on July 19<sup>th</sup>, 2011 at Harvard Medical School, Boston, MA, 02115 USA.
18. “Online Environmental Health and Safety Training” June 21, 2011 for Wyss Institute of Biologically Inspired Engineering, Boston, MA 02115, USA.
19. NIH rDNA Guidelines Training Course, January 20, 2011, Harvard School of Medicine, **Harvard University**, USA.
20. Training course “Environmental Health and Safety” January 2011, **Harvard University, Boston**, MA, USA.
21. Workshop on “Separation Science and The Omics” April 06-10, 2009 in School of Biological Sciences, University of the Punjab, Lahore.
22. Training Workshop on Human Resource Development held from 21-24 July, 2008 at GC University Lahore organized by Quality Enhancement Cell.
23. “Professional Development Programme” held from March 26-31, 2007 organized by Learning Innovation Division, Higher Education Commission & GC University, Lahore.
24. 4<sup>th</sup> National workshop on “Modern Techniques in Biotechnology” held in NIBGE Faisalabad from 26-31 March 2006.
25. Workshop on Biochemical Engineering and Fermentor Applications (Lecturing + Hands on training) organized by Institute of Biochemistry and Biotechnology, Punjab University, Lahore and Bioengineering, Switzerland on 19<sup>th</sup> August 2006.
26. International Thematic workshop on “Industrial Biotechnology: Connecting Business, Academia” organized by COMSTECH-HEC from 6-17 November, 2006 in Islamabad.
27. “Chromatography: Experience Derives Innovation” organized by Merck International, 11 Dec, 2006 at Pearl Continental Hotel Lahore.
28. A Symposium-Workshop on the ‘Applications of Molecular Biology Research in Agriculture and Health’ March 27-31, 2004 at National Centre of Excellence in Molecular Biology (CEMB), University of the Punjab Lahore, under the auspices

- of CEMB Lahore, Pakistan and National Institute of Health, Bethesda, Maryland, USA.
29. Workshop on “Identification, Maintenance and Preservation of Microorganisms” held in Quaid-i-Azam University from 10-12 May **2004**.
  30. NIBGE-FAO workshop on “GMOs Detection: Capacity building in Biosafety of GM crops” held in NIBGE on 14-17 June **2004**.
  31. Selected for International course “Microbial Biodiversity: Applications and Perspectives in Industrial and Environmental Biotechnology” held in Columbia from October 24-28, **2005** organized by Universidad Javariana and sponsored by ICGEB (Selected for grant as a participant but could not attend).

## RESEARCH PUBLICATIONS

1. Haq, I., Mahmood. F., Qadeer, M. A. and **Mukhtar, H. 1996**. Microbiological examination of Khoa. *Biologia*, 41(2): 91-95.
2. Haq, I., Saleem, U. **Mukhtar, H.**, and Qadeer, M. A. **1997**. Biosynthesis of alkaline proteases by *Bacillus* spp. and its evaluation in leather industries. *Biologia*, 43(2): 23-30.
3. Haq, I., **Mukhtar, H.** and Qadeer, M. A. **1997**. Production of alkaline proteases by *Bacillus* spp. in shake flask. *Biologia*, 43(1): 71-81.
4. Haq, I., Ali. U., Khurshid, S. and **Mukhtar, H. 1998**. Studies on the production of alkaline proteases by locally isolated cultures of *Bacillus* spp. *Biologia*, 44(1&2): 101-109.
5. Haq, I., **Mukhtar, H.** and Qadeer, M. A. **1998**. Production of alkaline proteases by *Bacillus subtilis* and the recovery of silver from X-ray films. *Biologia*, 44(1&2): 250-258.
6. Ikram-ul-Haq, Tehreema Iftikhar, M. A. Qadeer, Muhammad Mohsin Javed, Hamad Ashraf and **Hamid Mukhtar, 2002**. Production of Extracellular Lipases

- by *Bacillus sp.*GCB-3 in relation to nutritional conditions. *Biologia*, 48 (1&2):257-265.
7. **Hamid Mukhtar** and Ikram-ul-Haq. **2003**. Nutritional studies for the production of protease by *Rhizopus oligosporous* IHS<sub>13</sub>. Proceedings of International Conference on Chemical and Bioprocess Engineering, 27<sup>th</sup> –29<sup>th</sup> August 2003 (Vol 1). Pp. 199-201.
  8. Tehreema Iftikhar, Ikram-ul-Haq and **Hamid Mukhtar**. **2003**. Effect of additional nitrogen sources on the production of lipase by mutant strain of *Rhizopus sp.* T<sup>UV</sup>31. Proceedings of International Conference on Chemical and Bioprocess Engineering, 27<sup>th</sup> –29<sup>th</sup> August 2003 (Vol 1):217-219.
  9. Ikram-ul-Haq, **Hamid Mukhtar**, Sunila Daudi, Sikander Ali and M.A. Qadeer. **2003**. Production of proteases by locally isolated mould culture under lab conditions. *Biotechnol.*, 2(1): 30-36.
  10. Ikram-ul-Haq, **Hamid Mukhtar**, Zahid Ali, and Nadia Riaz. **2004**. Proteases biosynthesis by mutant strain of *Penicillium griseoroseum* and cheese formation. *Pak. J. Biol. Sci.*, 7(9) 1473-1476.
  11. **Hamid Mukhtar** and Ikram-ul-Haq. **2004**. Optimization of cultural conditions for the biosynthesis of alkaline proteases by *Bacillus sp.* in a bioreactor and fuzzy logic control, Proceedings of the second International Conference on Artificial Intelligence in Engineering and Technology, August 3-5, 2004, Kota Kinabalu, Sabah, Malaysia, Vol 2:971-974.
  12. Ikram-ul-Haq, Maaidah Tasneem, Koukab Rana, Ayesha Khan, **Hamid Mukhtar** and Mohsin Javed. **2004**. Optimization of cultural conditions for the production of xylanase by chemically mutated strain of *Aspergillus niger* GCBCX-20, *Int. J. Agric. Biol.* 06-6-1115-1118.
  13. K. Raana, M. Tasneem, I. Haq and **H. Mukhtar**. **2004**. Effect of additional carbon and nitrogen on the production of xylanase by a mutant strain of *Aspergillus niger* GCBCX-20, *Int. J. Biol. Biotech.*, 1 (4): 529-533.

14. Ikram-ul-Haq and **Hamid Mukhtar**. 2004. Biosynthesis of proteases by *Rhizopus oligosporus* IHS<sub>13</sub> by solid-state fermentation in a low cost medium. *J. Basic Microbiol.* 44 (4):280-287.
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16. Azam Mukhtar, Shabbir Ahmad and **Hamid Mukhtar**. 2005. Arsenic, Mercury and Copper contents of commercially available organ meat of Beef, mutton and poultry, *Biologia*, 51 (1): 37-43.
17. **Hamid Mukhtar** and Ikram-ul-Haq. 2006. Simultaneous Production of Protease and Alpha Amylase by *Bacillus subtilis* in a Microprocessor Controlled Fermentor, *Proceedings of the 1st International Conference on Natural Resources Engineering & Technology 2006, 24-25th July 2006; Putrajaya, Malaysia*, 130-137.
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20. Ikram-ul-Haq, Uzma Hameed, **Hamid Mukhtar** and M.A. Qadeer 2006 Isolation of Citric acid producing strains of *Aspergillus niger* using tannic acid medium and production parameters, *Int. J. Biol. Biotechnol.*, 3(4): 681-687.
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23. Azam Mukhtar, Habib Ullah and **Hamid Mukhtar 2006** Extraction and Characterization of Tobacco Seed Oil, *Asian J Chem.*, 18(1): 20-24.
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43. Basit Karim, Azam Mukhtar, **Hamid Mukhtar** and Makshoof Athar. **2009**. Effect of the Canopy Cover on the Organic and Inorganic Content of Soil in Cholistan Desert. *Pak. J. Bot.*, 41(5): 2387-2395.
44. Muhammad Waseem Mumtaz, Muhammad Hanif, **Hamid Mukhtar**, Zahoor Ahmed, Sumaira Usman. **2010**. Evaluation of pollution load of Lahore Canal by quantification of various pollutants through physicochemical characterisation. *Environ. Monit. Assess.*, 167:437–446.
45. Shazia Kanwal Malik, **Hamid Mukhtar** and Ikram-ul-Haq, **2010**. Pretreatment of Sugarcane Bagasse for the Biosynthesis of Cellulases by *Trichoderma viride*. *Pak J. Sci.*, 62(2):94-98.
46. **Hamid Mukhtar**, Umar Farooq, Ikram-ul-Haq. **2010**. Production of cephalosporin C from *Acremonium chrysogenum* and optimization of fermentation parameters (Abstract), *J. Biotechnol.*, 150(Supplement): 175.
47. Javed Iqbal, M. Waseem Mumtaz, **Hamid Mukhtar**, Tahir Iqbal, Shahid Mahmood and Abdul Razaq. **2010**. Particle size distribution analysis and physico-chemical characterization of Chenab River water at Marala Headworks. *Pak. J. Botany*, 42(2): 1153-1161.
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54. Muhammad Waseem Mumtaz, Zahed Mahmood, Ahmed Adnan, **Hamid Mukhtar**, Zahoor Ahmad and Muhammad Danish **2012** Biodiesel Production Using *Eruca sativa* Oil: Optimization and Characterization, *Pak J. Bot.*, 44(3): 1111-1120.
55. Muhammad Waseem Mumtaz, Ahmad Adnan, Farooq Anwar, **Hamid Mukhtar**, Muhammad Asam Raza, Farooq Ahmad and Umer Rashid. **2012**. Response Surface Methodology: An Emphatic Tool for Optimized Biodiesel Production Using Rice Bran and Sunflower Oils. *Energies*, 5, 3307-3328.
56. **Hamid Mukhtar** and Ikram-ul-Haq. **2012**. Purification and characterization of alkaline protease produced by a mutant strain of *B. subtilis*, *Pak. J. Bot.*, 44(5): 1697-1704.
57. **Hamid Mukhtar** & Ikram ul Haq. **2012**. Concomitant Production of two Proteases and Alpha-Amylase by a Novel Strain of *Bacillus subtilis* in a Microprocessor Controlled Bioreactor, *Brazilian J. Microbiol.*, 43(3) : 1072-1079.
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59. Umar Farooq Gohar, **Hamid Mukhtar** and Ikram-ul-Haq. **2013**. Studies on the nutritional parameters for Cephalosporin biosynthesis from *Acremonium Chrysogenum* by submerged fermentation, *Pak. J. Bot.*, 45(3): 1057-1062.
60. Nadeem Ullah and **Hamid Mukhtar**, **2013**. Partial Purification of alkaline protease by mutant strain of *Bacillus subtilis*<sup>EMS-6</sup>, *Biologia*, 59(1):165-7.
61. Arjumand Ahmed, **Hamid Mukhtar**, Umar Farooq Gohar and Ikram-Ul-Haq. **2013**. Production of Lovastatin from *Aspergillus terreus* through submerged fermentation, *Pak. J. Bot.*, 45(5): 1795-1800.
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75. **Hamid Mukhtar**, Iqra Khizer, Ali Nawaz, Asad-ur-Rehman and Ikram-ul-Haq. 2015. Biodegradation Of Endosulfan By *Aspergillus niger* Isolated From Cotton Fields of Punjab, Pakistan, *Pak. J. Bot.*, 47(SI): 333-336. (IF-0.658)
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[http://doi.org/10.53560/PPASB\(60-1\)731](http://doi.org/10.53560/PPASB(60-1)731) [X-category]
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216. Maryam Salah Ud Din, Umar Farooq Gohar, **Hamid Mukhtar**, Ibrar Khan, John Morris, Soisuda Pornpukdeewattana, and Salvatore Massa. **2023**. Antibiotic Reversal Activity of *Piper longum* Fruit Extracts against *Staphylococcus aureus* Multi-Drug Resistant Phenotype, *Microbiol. Biotechnol. Lett.*, 51(4), 432–440 <http://dx.doi.org/10.48022/mbl.2307.07012> pISSN 1598-642X eISSN 2234-7305
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219. Rida Chaudhary, Ali Nawaz, Mireille Fouillaud, Laurent Dufossé, Ikram ul Haq and **Hamid Mukhtar**. **2024**. Microbial Cell Factories: Biodiversity, Pathway Construction, Robustness, and Industrial Applicability. *Microbiol. Res.*, 15, 247–272. <https://doi.org/10.3390/microbiolres15010018>
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222. Fatima Akram, Taseer Fatima, Ifrah Shabbir, Ikram ul Haq, Ramesha Ibrar, **Hamid Mukhtar**. **2024**. Abridgement of Microbial Esterases and Their Eminent Industrial Endeavors. *Molecular Biotechnology* <https://doi.org/10.1007/s12033-024-01108> [IF 2.6]
223. Sadaf Nosheen, **Hamid Mukhtar**, Sajjad Haider, Rawaiz Khan, Faiza Sharif, **2024**. Tissue engineered multifunctional chitosan-modified polypropylene hernia mesh loaded with bioactive phyto-extracts, *International Journal of Biological Macromolecules*, <https://doi.org/10.1016/j.ijbiomac.2024.132282> [IF 8.2]
224. Mumtaz, M.W., Munawar, R., Miran, S., **Mukhtar, H.** et al. **2024** Polyaniline-modified anode with mixed microbial community improved microbial fuel cell performance for power generation treating complex leather tannery wastewater. *Biomass Conv. Bioref.*, <https://doi.org/10.1007/s13399-024-05636-9> [IF 4.0]
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226. Rida Chaudhary, Ali Nawaz, Zermine Khattak, Muhammad Arslan Butt, Mireille Fouillaud, Laurent Dufossé, Mariam Munir, Ikram ul Haq, **Hamid Mukhtar**, 2024 Microbial bio-control agents: A comprehensive analysis on sustainable pest management in agriculture, Journal of Agriculture and Food Research, 18, 101421, <https://doi.org/10.1016/j.jafr.2024.101421> [IF 4.8]
227. Muhammad Uzair Javed, Iqra Nazeer, **Hamid Mukhtar**, Umer Rashid, Maria J. Sabater, Fahad A. Alharthi. 2024. Production and optimization of biofuels from locally isolated algal biomass: Strategies for circular economy integration, *Biocatalysis and Agricultural Biotechnology*, 61, <https://doi.org/10.1016/j.bcab.2024.103383> [IF 2.8]
228. Amjed Hussain, Hamid Mukhtar, Umar Farooq Gohar, Muhammad Imran, Muhammad Zubair Yousaf and Zia Uddin. 2024. Screening Of Culture Media for Lysine Production By *Corynebacterium glutamicum* IIB646. *Int. J. Biol. Biotech.*, 21 (4): 465-472 [Y-Category]

## STUDENTS/ RESEARCH THESES SUPERVISED

### B.Sc. (Hons)

1. Muhammad Uzair Javed (20-21) Production of bioethanol from locally isolated algal biomass.
2. Rameen Imran (2019-20) Inhibition of beta lactamases using plant extracts
3. Ali Haider (2019-20) Isolation of psychrophilic microbes and evaluation of their biotechnological potential
4. Muhammad Arslan Butt (2019-20) Isolation of thermophilic microbes and evaluation of their biotechnological potential
5. Muhammad Ahsan Kaleem (2018-19) Determination of antimicrobial activity of actinomycetes isolated from various soil samples
6. Syeda Zara Kazmi (2018-19) Isolation and screening of statin producing fungal cultures
7. Shaista Amin (2018-19) Isolation, and characterization of lactic acid bacteria from local yogurt samples
8. Rukhma (2018-19) Immobilization of proteases using nanoparticles



9. Muhammad Hassan Farooq (2017-18) Study of antimicrobial potential of sea-buckthorn
10. Maryam Mumtaz (2017-18) Isolation and screening of phosphatase producing fungi from soil
11. Aiman Fatima (2017-18) Isolation and screening of pectinase producing fungi from soil
12. Rabia Iqbal Khan (2017-18) Random Mutagenesis of endophytic fungi for enhancement of taxol production
13. Ayesha Imran (2017-18) Determining the role of podocin polymorphism in focal segmental glomerulosclerosis (FSGS)
14. Maira Javed (2017-18) Isolation of thermophilic bacteria and study of their biotechnological potential
15. Manahil Ghazi (2017-18) Biosynthesis of biodiesel by using lipase immobilized on nanoparticles
16. Maria Najeeb (2016-17) Evaluation of different substrates for vinegar production by *Acetobacter* sp.
17. Sadia Hassan (2016-17) Removal of chromium from industrial wastewater using indigenous microorganism.
18. Hafiz Abdul Basit (2016-17) Studies on the purification of Glucose Oxidase from *Aspergillus niger*.
19. Mariam Ahmad (2016-17) Isolation and screening of keratinase producing bacteria and fungi.
20. Rimsha Waris (2016-17) Isolation and characterization of cellulolytic fungi from compost.
21. Misha Naz (2015-16) Isolation & Screening of fungal cultures for Taxol production.
22. Shabana Yousaf (2014-15) Kinetics and thermodynamics of alkaline protease isolated from *Aspergillus oryzae*.
23. Arooj Fatima (2014-15) Isolation and screening of collagenase producing bacteria.
24. Sobia Anjum (2012) Studies on the effect of activators and stabilizers on alkaline

- protease from *Bacillus subtilis*.
25. Sara Rahman (2012) Antimicrobial activity of different antibiotics against *Escherichia coli*.
  26. Nazia Hassan (2012) Isolation and identification of phosphate solubilizing bacteria and their role as biocontrol.
  27. Mubeshrah Siddique (2012) Biosorption of chromium by bacterial isolates.
  28. Iqra Khizar (2012) Biodegradation of endosulfan by fungal isolates.
  29. Shanice Oquin (2011) Studies on growth optimization and cloning efficiency of induced pluripotent stem cells (Summer student at **Harvard Medical School** from University of Texas, Texas USA)
  30. Sadia Nazeer (2010) Biosorption of Chromium using fungal biomass.
  31. Unaza Saqib (2010) Biosorption of Chromium using plant biomass.
  32. Muhammad Bilal (2010) Studies on the Storage and stability of alkaline protease from *Bacillus subtilis*.
  33. Sumera Rashid (2010) Isolation and purification of pancreatic proteases.
  34. Madiha Hanif (2010) Production of extracellular lipase by *Aspergillus niger* using solid state fermentation.
  35. Sadaf Hanif (2010) Production of keratinase by *Bacillus* species using solid state fermentation.
  36. Javeria Shahzad (2010) Production of lipase by bacterial isolate under solid state fermentation.
  37. Sumarish Riaz (2009) Isolation and screening of bacterial cultures for amino acid production.
  38. Mehreen Akram (2009) Application of alkaline proteases in leather industry.
  39. Sana Aslam (2009) Drug sensitivity patterns of the isolates from ventilator associated pneumonia in a tertiary care hospital.
  40. Amna Butt (2009) Isolation & Characterization of urinary pathogen isolated from catheterized patients in a tertiary care hospital.
  41. Mariam Ayub (2009) Methicilline Resistant *Staphylococcus aureus* (MRSA) frequency in health care workers.

**M.Sc.**

1. Uzma Ali (1995). Production of alkaline proteases by locally isolated *Bacillus* sp. using solid-state fermentation (as co-advisor)
2. Sunila Daudi (1996). Production of proteases by locally isolated mould culture. (as co-advisor)
3. Uzma Saleem (1997). Production of proteases from *Bacillus* and their uses in tannery & leather. (as co-advisor)
4. Humaira Yasmin (1998). Production of alkaline proteases by *Bacillus* species (as co-advisor)
5. Haiba Kaul (2001). Studies on the biosynthesis of protease by mutant strain of *Penicillium griseoseum* and its application to cheese formation (as co-advisor)
6. Hina Umber. (2005) Studies on the biosynthesis of protease from *Penicillium* spp.
7. Gul Fatima (2006) Production of acid protease from *Aspergillus niger*.
8. Nadeem Ullah (2006) Downstream processing of alkaline protease from *Bacillus subtilis*.
9. Syeda Sidra Ejaz (2007) Production of antitumor antibiotic by *Streptomyces capoamus* in batch fermentation.
10. Hina Bashir (2007) Optimization of growth conditions for *Azotobacter* species and their use as Biofertilizer.

**M. Phil. Produced**

1. Ayesha Tanveer (2022-23) Production of thermostable protease from thermophilic bacterial isolates.
2. Nawal Jamshaid (2022-23) Optimization of protease production from locally isolated bacteria.
3. Sania Sahreen (2021-22) Bacterial augmented floating treatment of industrial wastewater.
4. Nabeela Anwar (2021-22) Production and purification of recombinant human epidermal growth factor (hEGF) from *Pichia pastoris*.
5. Tabeer Bhatti (2021-22) Green synthesis and characterization of Silver nanoparticles from *Moringa oleifra* for its antimicrobial applications.

6. Hajra Khan (2020-21) Purification and Characterization of Human Serum Antibodies.
7. Aneza Lodhi (2020-21) Power generation from wastewater using double chamber microbial fuel cell.
8. Mahnoor Aslam (2020-21) Biodiesel production from algal oil using novel biocataly.
9. Rabia Iqbal Khan (2019-20) Isolation and screening of actinomycetes for their antimicrobial potential
10. Kanza Arshad (2019-20) Biological Attributes and Metabolite profiling of *Achyranthus aspera*
11. Rabia Abid (2019-20) Production of lovastatin from locally isolated fungal strains
12. Fatima Jamil (2019-20) Isolation, Characterization and Evaluation of Plant Growth Promoting Rhizobacteria (PGPR) for their use as Biofertilizer
13. Wajeeha Mehak (2019-20) Development of Microbial Consortium for the treatment of Industrial Wastewater
14. Zinnia Shah (2019-20) Purification and characterization of human serum albumin from blood
15. Rukhsar Fatima (2019-20) Isolation, purification and characterization of taxol from an endophytic fungus
16. Saman Aftab (2019-20) Biodegradation of Plastics by locally isolated microorganisms
17. Syeda Tasmia Asma (2019-20) Fabrication of Cu Nanoclusters based Thiolated Chitosan Nanocarriers loaded with Levofloxacin and their evaluation for antimicrobial analysis against MDR bacteria
18. Aiman Tahir Laghari (2018-19) Production and Characterization of Kefir using Indigenous Microflora
19. Mariam Ahmad (2018-19) Production of protease from thermophilic bacteria through submerged fermentation
20. Muhammad Faiq Ali (2018-19) Isolation, identification and characterization of calcite inducing microbes

21. Sameen Ashraf (2018-19) Bioremediation of arsenic by using locally isolated bacteria
22. Sonia Younas (2017-18) Study of the efficacy and side effects of Sofosbuvir and Daclatasvir in patients of chronic hepatitis C virus infection
23. Syed Sajid Jan (2017-18) Production, purification and application of alkaline protease from *Bacillus amyloliquefaciens*
24. Maryam Javid (2017-18) Studies on Chromium reduction potential of Biofilms and Planktonic bacterial cells
25. Yasmeen Ghulam Muhammad (2017-18) Synthesis, characterization and application of mesoporous silica nanoparticles (MSNs) in drug delivery
26. Fatima Iqbal (2017-18) Production of Glyoxal Oxidase from fungal isolates and its application in Ligno-cellulosic degradation
27. Manam Walait (2017-18) Studies on the biodegradation of atrazine by locally isolated microorganisms.
28. Khadija tul Kubra (2017-18) Designing the new drug (s) against antibiotic resistant strains of *Staphylococcus aureus*
29. Sabir Javed (2016-17) Growth optimization of various algal species for their biotechnological applications
30. Zunaira Shahzadi (2016-17) Purification and characterization of alkaline protease from *Bacillus* spp.
31. Nazish Ishaq (2016-17) Production of Podophylotoxin from endophytic fungi isolated from *Podophyllum* sp.
32. Anum Mushtaq (2015-16) Production and partial purification of Laccase from Basidiomycetous fungi
33. Abida Rafique (2015-16) Production of pyrazoloisoquinolinone (APHE) antibiotic from *Streptomyces griseocarneus* through submerged fermentation
34. Sana Mushtaq (2015-16) Production and application of proteases for the synthesis of peptides and amino acids using low cost sources of proteins (In Progress)
35. Aqsa Mujahid (2015-16) Biosynthesis of silver nanoparticles by *Aspergillus* sp. and their characterization.

36. M. Ammar Asghar (2015-16) Production and purification of bacteriocins from *Lactobacillus* species.
37. Wajeeha Jawad (2015) Studies on the immobilization of alkaline protease and its applications.
38. Huda Fatima (2015) Optimization of submerged fermentation for protease production from different *Aspergillus* sp.
39. Zaib-un-Nisa (2015) Rapid detection of rpoB gene mutation conferring Rifampicin resistance in pulmonary and extra-pulmonary MDR tuberculosis.
40. Zile Huma (2015) Production of bioethanol from pretreated and saccharified rice straw using *Saccharomyces cerevisiae*.
41. Aisha Ghazal Latif (2015) Emerging Carbapenem resistance in gram negative facultative aerobes isolated from the hospitals of Lahore.
42. Zoyea Rehman (2014) Production and purification of Rhamnolipids from microbial cultures using submerged fermentation.
43. Maryam Mushtaq (2014) Purification and characterization of protease from locally isolated *Aspergillus oryzae*.
44. Farzana Anwar (2014) Optimization of growth of *Mycoplasma gallisepticum* (MG) for vaccine production.
45. Sahar Zafar (2014) Development and optimization of in-house fluorescence quenching assay for the estimation of total glycosylated serum proteins.
46. Raheema Rasheed (2014) Biosynthesis of pectinase from fungal isolate using solid state fermentation.
47. Sana Rashid. 2013. Production & partial purification of extracellular ribonuclease from *Bacillus megaterium*.
48. Haniya Mazhar. 2013. Extracellular lipase production from *Bacillus* species; partial purification and characterization of enzyme.
49. Kiran Fatima (2013) Production and purification of L-Asparaginase from *Bacillus* species.
50. Madiha Khan (2013) Microbial lipases: production and application for biodiesel synthesis from non-conventional feedstock.
51. Gohar Ayub (2013) Production, formulation and application of bathing enzymes.

52. Saima Yaqub (2013) Production of Mozzarella cheese by incorporation of probiotics.
53. Madiha Hanif (2013) Comparative predictive values of Rheumatoid arthritis factor (RAF) and Antinuclear antibodies (ANA) in hepatitis B surface antigen (HBsAG) positive cases.
54. Aroosh Shabir (2013) Biosynthesis of ethanol from cellulosic waste material using bacterial enzymes.
55. Wageha Talib (2013) Isolation, molecular diagnosis and antibiotic resistant profile studies of *Acinetobacter* from human and animal origin.
56. Rahat Zareen (2012) Evaluation of antibiotic resistance of the coliform bacilli isolated from various clinical samples.
57. Sumaira Majeed (2012) Blood borne viral infection among pregnant women visiting for their antenatal check up.
58. Mehwish Batool (2012) Synergistic effect of different organisms on the chromium bioremediation.
59. Zubaria Rehman (2012) Purification and characterization of human serum proteins.
60. Hafiz Syed Muhammad Suliman (2012) Isolation of oleaginous yeasts and evaluation of their potential as feedstock for biodiesel production.
61. Zunaira Hafeez, (2012) Cloning and expression of serine alkaline protease from *Bacillus subtilis*
62. Sidra Ijaz (2010) Enhanced production and downstream processing of Lovastatin.
63. Samreen Khursheed (2010) Enzymatic trans-esterification for Biodiesel Production
64. Shafia Rani (2010) Environment Friendly Leather Processing using Proteases
65. Mina Ilyas (2010) Production and immobilization of proteases from *Bacillus* spp.
66. Umar Farooq Gohar (2009) Production of Cephalosporin from *Acremonium chrysogenum* by submerged fermentation.
67. Arjumand Ahmad (2009) Isolation and screening of fungal strains for the production of statins.

68. Iram Hina (2008) Biosorption of chromium from water by *Aspergillus oryzae*.
69. Asma Saeed (2008) Simultaneous production of alpha amylase and protease from *Bacillus* species by submerged fermentation.
70. Shazia Javed (2008) Studies on the production of alkaline protease from *Pseudomonas* sp. and its application for the dehairing of goat skin.
71. Hina Umber (2007) Partial Purification and Characterization of Alkaline Protease produced by *Bacillus subtilis*.
72. Nadia Kanwal (2007) Optimization of cultural parameters for the production of Lincomycin from *Streptomyces* species.
73. Saba Imtiaz (2006) Optimization of process parameters for alkaline protease by *Bacillus subtilis* under solid state fermentation.
74. Sunila Daudi (2006) Production of Acid Proteases by *Mucor* spp. (as co advisor).

#### **PhD. Scholars Supervised**

1. Sadaf Nosheen (2019-22) Design and characterization of tissue engineered knitted polypropylene hernia meshes coated with bacterial cellulose (In Progress)
2. Ammar Asghar (2019-22) Production, purification and characterization of bacteriocins from locally isolated Lactic acid bacteria (In Progress)
3. Syed Fahad Tahir (2019-22) Production and purification of taxol by cell suspension culture of *Taxus* (In Progress)
4. Zarina Mushtaq (2015-18) Biosynthesis of pyruvate decarboxylase from yeast isolates and its applications (Submitted)
5. Salma Siddique (2016-19) Nanomaterials Based Biosensors and Biofets for Detection of Analytes of Biotechnological Interest (Completed in 2021)
6. Aroosh Shabir. Lipase mediated transesterification of non-conventional feed stock for the production of Biodiesel (Completed in 2018)
7. Amjad Hussain. Enhanced production of L-Lysine from bacterial species through metabolic and bioprocess engineering (completed in 2016).
8. Umar Farooq Gohar. Enhanced production of taxol from fungal culture. (Completed in 2016).
9. Muhammad Waseem Mumtaz (2012) Optimization of reaction parameters for



Biodiesel production by chemical and enzymatic transesterification (Completed as Co-supervisor)

### SPECIAL ACHIEVEMENTS

- ❖ Got **1<sup>st</sup> position** in M.Sc.
- ❖ Received Academic **Roll of Honour** from GCU Lahore.
- ❖ Academic **Certificate of Merit** from Government College Lahore.
- ❖ Co-curricular **Certificate of Merit** from Government College Lahore.

### ADVISORY/ADMINISTRATIVE SERVICES AT DEPARTMENT LEVEL

1. Coordinator B.Sc. (Hons) Program (2015-)
2. Coordinator M. Phil (Microbiology) Program (2010-2013)
3. Coordinator M. Phil (Biotechnology) Program (2005-2013)
4. Secretary & Member of Board of Studies in Microbiology (2008-2010)
5. Incharge Non-teaching staff of IIB (2008-2013)
6. Incharge Stores IIB (2005 to 2014)
7. Purchase coordinator of IIB (2005 to 2014)
8. Incharge Departmental Library (2005-2009)
9. Team Leader, Quality Assurance IIB (2007 to 2012)

### ADVISORY/ADMINISTRATIVE SERVICES AT UNIVERSITY LEVEL

1. Member Syndicate, GC University Lahore (2020-2021)
2. Convener University Medical Committee (2019-2020)
3. Convener, Institutional Bioethics Committee (2018 to date)
4. Member University Works Committee (2014-2019)
5. Member Service Statues Committee of GCU Employees (2015-2016)
6. Member, Staff Welfare Fund Committee (2014-15)
7. Advisor, Hiking and Mountaineering Club (2008-10)

8. Member, Convocation Committee (Organization, Invitation, Seating, Decoration) (2006 to 2016)
9. Convener, Convocation Committee (Organization, Invitation, Seating, Decoration) (2017 to 2020)
10. Advisor Scientific Ravi (2009 to date)
11. Co-Advisor Biological Society, GCU (2008-10)
12. Elected Member of Academic Council, GC University, Lahore (2013-2016)

### **SPORTS & EXTRA CURRICULAR ACTIVITIES**

1. President Rowing Club, GCU Lahore (2013-2020)
2. Member, Sports Board, GCU Lahore (2008- 2020)
3. Advisor, Scientific Ravi (University Magazine) (2007-10; 2012- date)
4. Member, Harvard Dragon Boating Team (Won Gold Medal & Bronze Medal at International Fingerlakes Dragon Boating Festival 2011, New York, USA, )
5. President GCU Weightlifting Club (2008-10)
6. President GCU Biological Society (1995)
7. Associate-Editor of Scientific Ravi, GCU (1995)


### **PROFESSIONAL EXPERIENCE**

#### **1) Teaching Experience:**

Twenty-eight (28) years of teaching experience to intermediate, graduate and post graduate classes in the subjects of Biology, Biochemistry, Microbial Genetics, Techniques in Biotechnology, Enzymology, Protein Purifications, Bioremediation, Microbial Enzyme Technology, Plant Physiology, Phycology, Mycology, Anatomy and Morphology of Vascular Plants.

#### **2) Research Experience:**

Twenty-six (26) years research experience at Biotechnology Research Centre, Botany Dept. and Institute of Industrial Biotechnology, Government College University, Lahore.



**PROF. DR. HAMID MUKHTAR**

Government College University,

Lahore.