CURRICULUM VITAE

PROF. DR. SIKANDER ALI

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Father's Name	Muhammad Ali
Nationality	Pakistan
Gender	Male
Marital Status	Married
Date of Birth	January 2, 1976
N.I. Card #	34501-1982164-1
Domicile	District Narowal
Present Status	Chairperson / Professor (Tenured)
Mailing Address	Department of Microbiology, Dr. Ikram-ul-Haq Institute of Industrial Biotechnology (IIB), GC University Lahore.
Highest Qualification	Pre-Doc Genomics (USA) Ph.D Industrial Biotechnology (PU) Post-Doc Biotechnology (Australia)
Research Interests	Nanoscience; Applied Microbiology; Enzymology & Industrial Biotechnology.

EDUCATION

Degree	Year	Subjects	Institute's Name	University / Board
DECL	2007	English Communication	GC University Lahore	GC University Lahore
Ph.D	2005	Botany (Industrial Biotechnology)	GC University Lahore	University of the Punjab, Lahore
DCS	2002	Computer Science	Ghazali Computer College, Lahore (Reg.)	University of the Punjab, Lahore
M.Sc	1998	Botany	GC Lahore	University of the Punjab, Lahore
B.Sc	1995	Botany, Zoology, Chemistry	GC Lahore	University of the Punjab, Lahore
F.Sc	1993	Physics, Chemistry, Biology	Govt. Islamia College, Civil Lines, Lahore	Board of Intermediate and Secondary Education, Lahore
Matric	1991	Physics, Chemistry, Biology, Math	Govt. Islamia High School, Baddomalhi	Board of Intermediate and Secondary Education, Gujranwala

Post-Doc Research Project (2011 Endeavour Research Fellowship, Australia)

Metabolic engineering of photosynthetic pathway in cyanobacteria for biofuel generation: Lipid synthesis and analysis from *Thermosynechococcus elongatus* BP-1 - The Australian National University, Canberra ACT, Australia (Supervisor: Prof. Dr. Warwick John Hillier; Advisors: Dr. Charles Hocart, Dr. Michael Kjowdrjiz, Gabriel O'Sullivan James).

Ph.D Research Project (2005)

Studies on the submerged fermentation of citric acid by *Aspergillus niger* in stirred fermentor - University of the Punjab, Lahore, Pakistan (Supervisor: Prof. Dr. Javed Iqbal; Co-Supervisor: Prof. Dr. Ikram-ul-Haq, SI).

Pre-Doc Research Project (2002-2003 J. William Fulbright Scholarship, USA)

Development of a physical map of the soybean pathogen *Fusarium virguliforme* based on synteny with *Fusarium graminearum* genomic DNA - Southern Illinois University, Carbondale, IL, USA (Supervisor: Prof. Dr. David A. Lightfoot; Advisor: Dr. Jeffry L. Shultz).

M.Sc Research Project (1998)

Studies on the microbiological transformation of L-tyrosine to 3,4-dihydroxy phenyl L-alanine (L-Dopa) by mutant strains of *Aspergillus oryzae* - University of the Punjab, Lahore, Pakistan (Supervisor: Prof. Dr. Ikram-ul-Haq, SI).

HONOURS/AWARDS/DISTINCTIONS

1. Top Scientific Article Contribution to Excellence in Biomedical Research, Eminent Scientific Discovery, UK (Report 2014).
2. Productive Scientist of Pakistan by PCST for 13 Consecutive Years from 2002-2014.
3. Endeavour Research Award (2011)
4. Active Scientist and Technologist of Pakistan by PSF for the year 2006.
5. Yau-Hoa Medal of Excellence (2004) from Hebei Academy of Sciences, PR China.
6. Fulbright Research Award (2002-2003)
7. Recognition of Research Article by Frost and Sullivan, USA (Report 2003).
8. Academic Roll of Honour (1997) and Gold Medal for 1st Position in M.Sc Botany from GC Lahore.
9. Certificate of Distinction (1995) for 2nd Position in B.Sc from GC Lahore.
10. First Position in Matriculation (1991) from Tehsil Narowal, District Sialkot.

POSITIONS HELD IN GCU LAHORE

	Job Title	Rank / Scale	Job Duration	Category
1.	Professor	BS-21	Feb. 13, 2019 to date	Tenure
2.	Associate Professor	BS-20	Oct. 21, 2014 to Feb. 12, 2019	Tenure
3.	Assistant Professor	BS-19	Dec. 5, 2013 - Oct. 20, 2014	Tenure
4.	Assistant Professor	BS-19	July 1, 2007 - Dec. 4, 2013	Tenure Track
5.	Assistant Professor	BS-18	Nov. 1, 2005 - June 30, 2007	- do -
6.	Assistant Professor	BS-18	May 9, 2005 - Oct. 31, 2005	Permanent
7.	Lecturer	BS-17	Sept. 6, 2002 - May 8, 2005	- do -
8.	Lecturer (PCS)	BS-17	August 2002	- do -
9.	Teaching Assistant	BS-17	Sept. 2000 - Aug. 2002	Contract
9.	Research Assistant	BS-16	July 1999 - Sept. 2000	- do -
10.	Research Associate	--	Feb. 1998 - July 1999	Temporary

COURSES TAUGHT ALONGWITH THEIR CODES

1. **Ph.D Biotechnology**
    - Advances in Enzymology (BIOTECH-8202)
    - Introduction to Biochemical Engineering (BIOTECH-8105)
    - Advances in Fermentation Technology (BIOTECH-8106)
2. **M.Phil Biotechnology**
    - Principles of Fermentation Technology (BIOTECH-7101)
    - Principles of Enzymology (BIOTECH-7103)
    - Principles and Techniques of Molecular Biology (BIOTECH-7104)
3. **M.Phil Microbiology**
    - Virology (MICBIO-7105)
    - Advances in Industrial Microbiology (MICBIO-7106)
4. **B.Sc Hons. Biotechnology**
    - Basic Biotechnology, I & II (BIOTECH-1101 & BIOTECH-1201)
    - Biochemistry, I & II (BIOTECH-2101 & BIOTECH-2201)
    - Metabolism, I & II (BIOTECH-3101 & BIOTECH-3201)
    - Fermentation Technology (BIOTECH-3103)
    - Enzymology (BIOTECH-3203)
    - Microbial Genetics (BIOTECH-3105)
    - Skills and Research Methodology (BIOTECH-4202)
5. **B.Sc Hons. Microbiology**
    - General Microbiology, I & II (MICBIO-1101 & MICBIO-1201)
    - Microbial Taxonomy (MICBIO-3101)
    - Soil Microbiology (MICBIO-4201)
    - Microbial Enzyme Technology (MICBIO-4204)
    - Medical Microbiology (MICBIO-4205)
6. **B.Sc Botany**
    - Genetics and Microbiology (BOT-302)
    - Plant Morphology, Systematics, Anatomy and Development (BOT-401)
7. **F.Sc Biology**
    - Biology (XI & XII)

OTHER SERVICES RENDERED IN GC UNIVERSITY LAHORE

1. Member, TTS Review Committee (2020 to date)
2. Member, Academic Council (2019 to date)
3. Member, Advanced Studies and Research Board (ASRB, 2015-2020)
4. Member, Departmental Technical Review Committee (DTRC) for Tenure Track System i.e., TTS (2015 to date).
5. Departmental Controller of Examination (2016 to date).
6. Member, Board of Studies in Biotechnology and Microbiology (2015 to date).
7. Member, Department Procurement/Purchase Committee (2015 to date).
8. Member, Ph.D Admission Committee (2014 to date).
9. HEC Approved Ph.D Supervisor (2005 to date).
10. Member, M.Phil Admission Committee (2004-2010; 2014 to date).
11. Advisor, Khorana Society of Biotechnology and Microbiology (2017-2019)
12. Member, University Staff Welfare Fund (SWF) Committee (2015-2017).
13. Coordinator, Departmental Ph.D Degree Program (2014-2016).
14. Coordinator, M.Phil Biotechnology (2016-2017).
15. Departmental Purchase Coordinator (2015-2017).

16. HEC Focal Person (2005-2007).
17. Incharge, Microbiology Evaluation Committee (2014).
18. Incharge, Computer and M.Phil Research Labs (2008-2010).
19. Incharge, IIB Classwork Monitoring (2013-2014).
20. Secretary & Member, Board of Studies (BOS) in Biotechnology (2005-2011).
21. Block Supervisor (Chemistry), University Class Work (2008-2012).
22. Incharge, Curriculum Development in Biotechnology (2005-2011).
23. Incharge, IIB Cleanliness Affairs (2013-2014).
24. Member, Departmental Class Work Monitoring Team (2013).
25. Member, Establishment Committee of Institute of Industrial Biotechnology (2005-2006).
26. Member, Pak. Committee on Biomass Technologies for Production of Biofuels.
27. Member, National Curriculum Review Committee (NCRC) in Microbiology (2006-2009).
28. Member, Science Teacher Forum (STF), SMS (2006-2009).
29. Member, Departmental Purchase Committee (2005-2010).
30. Member, Tutorial Board (1998-2008).
31. Member, Proctorial Board (1998-2014).

OTHER SERVICES RENDERED OUTSIDE GC UNIVERSITY LAHORE

1. Member, Board of Studies, Department of Biotechnology, University of Sargodha, Sargodha (2019 to date).
2. Member, Board of Studies, Department of Biotechnology, Virtual University of Pakistan, Lahore (2018 to date).
3. Member, Technical Research Committee in Biotechnology, Virtual University of Pakistan, Lahore (2017 to date).
4. Member, Board of Studies, Department of Biotechnology, University of Central Punjab, Lahore (2017 to date)

Books Published (Co-Author)

	Book's Name	**Year**	**Publishers**
1.	Polyphenol Oxidase Production	2016	LAMBERT Acad. Publish., Germany (ISBN 978-3-659-78211-4)
2.	Serine Protease Production	2016	LAMBERT Acad. Publish., Germany (ISBN 978-3-659-90760-9)
3.	Basic Microbiology	2015	Pak. Book Centre, Lahore
4.	Principles of Biochemistry	2008	Copy Publications, Lahore
5.	Principles of F.Sc Biology-II	2004	Ch. Ghulam Rasool & Sons, Lahore
6.	An Easy Way to Biology for F.Sc-I	2002	Pakistan Book Centre, Lahore

Practical Note Books Published (Co-Author)

	Practical Note Book's Name	**Year**	**Publishers**
1.	Enzymology	2017	Copy Publications, Lahore
1.	Practical Microbiology	2014	Pak. Book Centre, Lahore (Under Process)
2.	Key-Stone Biology, IX-X	2007	Alif Publishing House, Lahore
3.	United Practicals, XI-XII	2004	United Book Publishers, Lahore

Referee in International Peer-Reviewed Journals

1. *Nature Biotechnology*
2. *Biotechnology and Applied Biochemistry*
3. *Biotechnology Progress*

4. *Applied Microbiology and Biotechnology*
5. *Letters in Applied Microbiology*
6. *Process Biochemistry*
7. *BMC Biotechnology*
8. *Current Microbiology*
9. *Natural Product Research*

Referee in National Refereed Journals

1. *Pakistan Journal of Botany*
2. *Journal of Chemical Society of Pakistan*
3. *Pakistan Journal of Zoology*
4. *Pakistan Journal of Scientific and Industrial Research*
5. *Pakistan Journal of Biological Sciences*

Editor of Scientific Journals

1. *Int. J. Curr. Microbiol. App. Sci.*
2. *Annual Res. Rev. Biol.*

INTERNATIONAL AND NATIONAL RESEARCH PUBLICATIONS

Country Name	Journal Name	Papers Published	Total
USA	1. *BMC Genomics*	1	
	2. *BMC Biotechnol.*	3	
	3. *Bioresourc. Technol.*	7	
	4. *Current Microbiol.*	2	
	5. *Appl. Biochem. Biotechnol.*	8	
	6. *Biotechnol. Appl. Biochem.*	2	
	7. *J. Appl. Phycol.*	1	
	8. *J. Lipid Res.*	1	
	9. *American J. Biol. Life Sci.*	1	26
UK	1. *Proc. Biochem.*	2	
	2. *Lett. Appl. Microbiol.*	2	
	3. *Nature & Science*	1	
	4. *SpringerPlus*	1	
	5. *British Biotechnol. J.*	1	
	6. *Waste Biomass Valor.*	1	
	7. *Environmental Technol.*	1	
	8. *Nat. Prod. Res.*	1	10
Germany	1. *Appl. Microbiol. Biotechnol.*	2	
	2. *J. Basic Microbiol.*	1	3
France	1. *Waste & Biomass Valor.*	1	
	2. *Cellular Mol. Biol.*	1	2
Switzerland	1. *Eng. Life Sci.*	1	
	2. Waste Biomass Valorization	2	3
Netherlands	1. *World J. Microbiol. Biotechnol.*	5	5
Czech Republic	1. *Folia Microbiologica*	1	1
Brazil	1. *Braz. J. Microbiol.*	3	3
Chile	1. *Electronic J. Biotechnol.*	4	4
Nigeria	1. *Afr. J. Microbiol. Res.*	2	2
Egypt	1. *Scientific World J.*	1	1
Japan	1. *Biomed. Res.*	1	1
Hungry	1. *Appl. Ecol. Environmental Res.*	1	

	2. *Biomedical Res.*	1	2
Australia	1. *3Biotech*	1	1
India	1. *Int. J. Curr. Microbiol. App. Sci.*	3	
	2. *Annual Res. Rev. Biol.*	1	
	3. *Int. J. Biochem. Res. Rev.*	1	
	4. *Int. J. Curr. Res. Biosci. Plant Biol.*	1	
	5. *Int. J. Res. Pharm. Biosci.*	6	
	6. *J. Sci. Res. Pharm. Chem. Biol. Sci.*	2	
	7. *Int. J. Adv. Res. Rev.*	2	
	8. Adv. Pharmaceutical J.	2	
	9. J. Health Sci. Nursing.	1	
	10. Eur. J. Pharm. Med. Res.	26	
	11. J. Health Sci. Engin.	1	
	12. *Int. J. Scientific Res. Sci. Technol.*	14	
	13. World J. Pharmaceutical Life Sci.	16	
	14. J. Biological Sci.	6	
	15. *J. Appl. Sci.*	1	
	16. Int. J. Life Sci.	2	
	17. J. Scientific Res. Pharmaceutical Chemical Biological Sci.	1	
	18. Int. J. Sci. Res.	4	
	19. *Int. J. Scientific Engin. Res.*	2	
	20. Int. J. Adv. Res. Rev.	2	
	21. Int. J. Sci. Res. Eng. Technol.	1	
	22. J. Pharmaceutical, Chemical, Biological Sci.	2	
	23. Sch. Acad. J. Biosci.	1	
	24. World J. Pharmaceutical Res.	3	
	25. Cro. Cur. Int. J. Med. Biosci.	1	
	26. Res. J. Cell Mol. Biol.	1	101
Pakistan	1. *Pak. J. Bot.*	24	
	2. *Biotechnol.*	5	
	3. *Pak. J. Sci.*	2	
	4. *Pak. J. Sci. Res.*	1	
	5. *Biologia*	22	
	6. *Ind. J. Plant Sci.*	10	
	7. *Pak. J. Biological Sci.*	9	
	8. *Online J. Biological Sci.*	8	
	9. *Pak. J. Plant Sci.*	1	
	10. *Sci. Khyb.*	2	
	11. *Pak. J. Nutrition*	1	
	12. *Science Int.*	2	
	13. *J. Food Technol.*	4	
	14. *Proc. Pak. Acad. Sci.*	1	
	15. *J. Natural Sci. Math.*	2	
	16. *Asian J. Plant Sci.*	1	
	17. *Int. J. Agr. Biol.*	1	
	18. *Pak. J. Biotechnol.*	4	
	19. *Pak. J. Life Soc. Sci.*	1	
	20. *Pak. J. Sci. Ind. Res.*	1	
	21. *J. Biol. Sci.*	1	
	22. *Int. J. Bot.*	1	
	23. *Pak. J. Biochem. Mol. Biol.*	1	
	24. *Ind. J. Biol. Sci.*	5	
	25. *Pak. J. Zool.*	9	
	26. *Sindh Univ. Res. J.*	1	
	27. *Int. J. Biol. Biotechnol.*	4	

	28. *J. Chem. Soc. Pak.*	1	
	29. Pak. J. Pharmaceutical Sci.	1	
	30. J. Ani. Pl. Sci.	5	130
	Grand Total		**295**

Peer-Reviewed Foreign Journals (With Impact Factors)

1. Ahmad MU, William K, Ali S, Akhtar F, Sana S and Sharif S. 2024. Utilization of fermentatively produced antimicrobial peptide-silver nanoconjugates against selected bacterial pathogens. *Int. J. Agri. Biol.,* 31(2): 137-146. DOI: 10.17957/IJAB/15.2125 (Impact Factor 0.232).
2. Sana S, Niaz S, Sheikh AA, Ali, Latif AA, Shahgull, Mujahid H, Liaqat I and Bashir I. 2024. Molecular characterization and susceptibility profile of indigenous *Arthroderma multifidum* to common antifungals. *Int. J. Agri. Biol.,* 31(4): 285-294. DOI: 10.17957/IJAB/15.2144 (Impact Factor 0.232).
3. Khan B, Ali S, Ahmad H, Nasir S, Younas A, Masud Y, Zamir R, Mariam N and Zafar N. 2024. Effective biotransformation of benzaldehyde to a stable L-PAC using calcium alginate entrapped pyruvate decarboxylase of an auxotrophic *Saccharomyces cerevisiae*. *J. Population Therapeutics Clinical Pharmacol.,* 31(2): 884-913 (Impact Factor 0.277).
4. Ali S, Zahra H, Ahmad MU, Usmani H, Sana S, Shoukat M. and Iqbal A. 2024. Exploring enhanced dopamine activity using an intracellular tyrosinase of two different *Lentinula edodes* strains. *Int. J. Agri. Biol.,* 31(6): 401-409. DOI: 10.17957/IJAB/15.2157 (Impact Factor 0.232).
5. Ali1 S, Lodhi FS, Ahmad MU, Khan QF, Rehman AU, Ahmed A, Liaqat I, Aftab MN, Shah TA, Salamatullah AM, Wondmie GF and Bourhia M. 2024. Kinetics and synthesis of poly(3-hydroxybutyrate) by a putative-mutant of *Bacillus licheniformis*. *Bioresourc. Bioproc.* 11:41. https://doi.org/10.1186/s40643-024-00750-y (Impact Factor 4.6).
6. Nawab AR, Ali1 S, Ahmad MU, Abbas S, Zaheer MM, Tarar HA and Zahra H. 2024. Microbial enzymes as versatile tools for their potential applications in foodstuff industry. *Int. J. Biol. Biotech.,* 21(1): 149-167.
7. Zahra H, Ali S, Nawab AR, Ahmad MU and Aftab MN. 2024. From nature to industry: harnessing the power of pectinase towards potential biotechnological applications. *Int. J. Biol. Biotechnol.,* 21(1): 17-35.
8. Tarar HA, Ali1 S, Sarfraz Z, Nawab AR, Khan A and Zaheer MM. 2024. Xylanases and industrial applications: A review. *Int. J. Scientific Engin. Sci.,* 8(1): 76-88.
9. Liaqat I, Khalid A, Rubab S, Rashid F, Latif AA, Naseem S, Bibi A, Khan BN, Ansar W, Javed A, Afzaal M, Summer M, Majid S, Ali S and Aftab MN. 2023. In vitro biofilm-mediated biodegradation of pesticides and dye-contaminated effluents using bacterial biofilms. Microorganisms, 11: 2163. https://doi.org/10.3390/microorganisms11092163 (Impact Factor 4.926)
10. Zahid A, Ali S, Hayyat MU, Ahmad MU, Maqsood R, Siddiq Z and Aftab MN. 2023. Exploring the potential of immobilized phytase to enhance phosphorus uptake by *Catharanthus roseus*. South African Journal of Botany, 163: 715-728. https://doi.org/10.1016/j.sajb.2023.11.021 (Impact Factor 3.111)
11. Saleem A, Ali S, Aftab MN, Shami A, Al-Saeed FA, Mustafa B, and Paray BA. 2023. The characterization and study of antibacterial, free radical scavenging, and anticancer potential of *Livistona chinensis*-mediated silver nanoparticles. Molecules, 28: 7773. https://doi.org/10.3390/molecules28237773 (Impact Factor 4.927)
12. Khalid A, Ali S, Rukhma, Jahangeer M, Sarwar A, Nelofer R, Aziz T, Alharbi M, Alasmari AF and Albekairi TH. 2023. Immobilization of *Aspergillus oryzae* tyrosine hydroxylase on ZnO nanocrystals for improved stability and catalytic efciency towards L-dopa production. Scientific Reports, 13: 22882 https://doi.org/10.1038/s41598-023-50198-x (Impact factor 4.997)
13. Shahid F and Ali S. 2023. PETase and MHETase: A step towards plastic degradation. International Journal of Biology and Biotechnology, 20(3): 441-452.
14. Aslam H and Ali S. 2023. Insights into flavoenzymes: Structure, classification and potential biotechnological applications. Global Journal of Research in Life Sciences, 1(1): 23-36 https://doi.org/10.58175/gjrls.2023.1.1.0021

15. Batool R, Kazmi SAR, Khurshid S, Saeed M, Ali S, Adnan A, Altaf F, Hameed A, Batool F and Fatima N. 2022. Postharvest shelf life enhancement of peach fruit treated with glucose oxidase immobilized on ZnO nanoparticles. *Food Chem.,* 366: 130591 https://doi.org/10.1016/j.foodchem.2022.130591 (Impact Factor 7.514).
16. Rashid A, Mirza SA, Keating C, Ijaz UZ, Ali S and Campos LC. 2022. Machine learning approach to predict quality parameters for bacterial consortium-treated hospital wastewater and phytotoxicity assessment on radish, cauliflower, hot pepper, rice and wheat crops. *MDPI Water,* 14: 116. https://doi.org/10.3390/w14010116 (Impact Factor 3.103).
17. Javed F, Ali Z, Ali S, Ahmed N, Alam MK, Mahmood Y and Wali A. 2022. Barley bran, a novel agricultural waste for the improved production of an extracellular laccase from a soil-inhabited *Penicillium* spp. 2022. *J. Microbiol. Biotechnol. Food Sci.,* 12(1): e3631 https://doi.org/10.55251/jmbfs.3631 (Impact Factor 0.614).
18. Tufail S, Liaqat I, Ali S, Ulfat M, Shafi A, Sadiqa A, Iqbal R and Ahsan F. 2022. *Bacillus licheniformis* (MN900686) mediated synthesis, characterization and antimicrobial potential of silver nanoparticles. *J. Oleo Sci*., 71(5): 701-708 DOI: 10.5650/jos.ess21441 (Impact Factor 1.601).
19. Hussain M, Liaqat I, Ali S, Aftab N, Ulfat M, Urooj SN and Qamar MF. 2022. Diversity and abundance of delineated earthworm (Annelida: Clitellata) in Pakistan. *J. Oleo Sci*., 71(6): 839-844 DOI: 10.5650/jos.ess22018 (Impact Factor 1.601).
20. Mahboob S and Ali S. 2022. Pectin lyase productivity by a UV-irradiated *Aspergillus oryzae* mutant under carrot-Koji process. *J. Animal Plant Sci.,* 32(5): 1375-1384 https://doi.org/10.36899/JAPS.2022.5.0544 (Impact Factor 0.57).
21. Hamid A, Zafar A, Liaqat I, Afzal MS, Peng L, Rauf MK, Haq I, Rehman AU, Ali S and Aftab MN. 2022. Effective utilization of magnetic nano-coupled cloned β-xylanase in saccharification process. *RSC Adv.*, 12: 6463 DOI: 10.1039/d1ra09275h (Impact Factor 4.036).
22. Mahboob S, Tahir K and Ali S. 2022. A systematic overview on the upstreaming, downstreaming and industrial applications of microbial lipases. *Int. J. Biol. Biotechnol.,* 19(2): 171-182 (Impact Factor 0.476).
23. Khalid T, Khalid A and Ali S. 2022. A critical review on the progression of gene expression in prokaryotic and eukaryotic animals. *Int. J. Sci. Technol. Res. Arc.,* 3(2): 60-72 https://doi.org/10.53771/ijstra.2022.3.2.0108.
24. Rashid A, SA Mirza, C Keating, S Ali and LC Campos. 2021. Hospital wastewater treated with a novel bacterial consortium (*Alcaligenes faecalis* and *Bacillus paramycoides* spp.) for phytotoxicity reduction in berseem clover and tomato crops. *Water Sci. Technol.,* 83(7): 1764-1780. doi: 10.2166/wst.2021.079 (Impact Factor 1.638).
25. Hamid A, Z Hussain, M Tayyab, A Zafar, MA Nawaz, MS Afzal, S Ali, AU Rehman and MN Aftab. 2021. Production and characterization of a thermostable extracellular esterase from *Aspergillus niger*. *Revista Mexicana de Ingeniería Química,* 20(2): 839-852. https://doi.org/10.24275/rmiq/Bio2034 (Impact Factor 1.139).
26. Rashid A, SA Mirza, C Keating, S. Ali and LC Campos. 2021. Indigenous *Bacillus paramycoides* spp. and *Alcaligenes faecalis*: sustainable solution for bioremediation of hospital wastewater. *Environmental Technol.* https://doi.org/10.1080/09593330.2021.1858180 (Impact Factor 2.213).
27. Batool R, SAR Kazmi, S Khurshid, M Saeed and S Ali, A Adnan, F Altaf, A Hameed, F Batool and N Fatima. 2021. Postharvest shelf life enhancement of peach fruit treated with glucose oxidase immobilized on ZnO nanoparticles. Food Chem., 366 (130591). https://doi.org/10.1016/j.foodchem.2021.130591 (Impact Factor 7.5).
28. Qamar H and S Ali. 2021. Review on production and purification of microbial cutinase for biotechnological applications. *Int. J. Biol. Biotechnol.,* 18 (1): 83-91 (Impact Factor 0.458).
29. Aftab A, ZU Khan and S Ali. Production, kinetics and immobilization of microbial invertases for some commercial applications - a review. *Int. J. Biol. Biotechnol.,* 18 (2): 377-388 (Impact Factor 0.458).

30. Ali S and Mahmood S. 2020. Mutagenesis of a thermophilic *Alkalibacillus flavidus* for enhanced production of an extracellular acetyl xylan esterase in semi-solid culture of linseed meal. *Waste Biomass Valor.,* 11: 3327-3335.
31. Hayyat MU, Khan AU, Ali S, Siddiq Z and Sharif F. 2020. Alleviation of lithium toxicity in Sorghum (*Sorghum vulgare* Pers.) by inoculation with lithium resistant bacteria. *Appl. Ecol. Environmental Res.,* 18(6): 7989-8008.
32. Iqbal MJ, Ali S, Rashid U, Kamran M, Malik MF, Sughra K, Zeeshan N, Afrooz A and Shafeeq J. 2018. Biosynthesis of silver nanoparticles from leave extract of *Litchi chinensis* and its dynamic biological impact on microbial cells and human cancer cell lines. *Cellular Mol. Biol.,* 64(13): 42-47.
33. Ali S. 2018. Fungal biotransformation of synthetic levodopa to stable dopamine in L-ascorbate-mediated aerobic-thermophilic biochemical process. *3Biotech,* 8: 370.
34. Iqbal MJ, Ali S, Rashid U, Kamran M, Malik MF, Sughra K, Zeeshan N, Afrooz A and Shafeeq J. 2018. Biosynthesis of silver nanoparticles from leave extract of *Litchi chinensis* and its dynamic biological impact on microbial cells and human cancer cell lines. *Biomedical Res.,* 29: 1-7.
35. Ali S and Wajeeha N. 2017. Optimization of nutritional requirements for dopamine synthesis by calcium-alginate entrapped mutant strain of *Aspergillus oryzae* EMS-6. *Nat. Prod. Res.,* 31(3): 281-288.
36. Ali S, Aslam A and Hayyat MU. 2016. Double mutation of *Saccharomyces cerevisiae* for enhanced β-D-fructofuranosidase fructohydrolase productivity and application of growth kinetics for parametric significance analysis. *Braz. J. Microbiol.,* 47: 136-142.
37. Ali S and Nawaz W. 2016. Biotransformation of L-tyrosine to dopamine by a calcium alginate immobilized mutant strain of *Aspergillus oryzae. Appl. Biochem. Biotechnol.,* 179: 1435-1444.
38. Bibi N, Ali S and Tabassum R. 2016. Statistical optimization of pectinase biosynthesis from orange peel by *Bacillus licheniformis* using submerged fermentation. *Waste Biomass Valor,* DOI 10.1007/s2649-015-9470-4.
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INTERNATIONAL AND NATIONAL PROCEEDINGS

International Proceedings (HEC Recognized)

306. Haq I, Ashraf H, Ali S and Qadeer MA. 2003. Selection of hyper-secretive mutant of *Bacillus licheniformis* for alpha amylase production. *Proc. 1st Int. Conf. Chemical and Bioproc. Engin*. pp. 169-173.
307. Shafiq K, Haq I and Ali S. 2003. Kinetic comparison of inoculum size and assay conditions for yeast invertase in submerged culture. *Proc. 1st Int. Conf. Chemical and Bioproc. Engin*., pp. 226-229.

National Proceedings (HEC Recognized)

308. Hameed U, Ali S, Javed M and Haq I. 2004. Optimization of inocula for cellulases biosynthesis by *Trichoderma harzinum* UM-11 under shaking culture. *Proc. 2nd Nat'l. Conf. Biol*., pp. 1-6.
309. Haq I, Hussain R and Ali S. 2004. Xylanases production by a 2-deoxy-D-glucose resistant mutant of *Aspergillus niger* RH_{MNNG}^{12} in shake culture. *Proc. 2nd Nat'l. Conf. Biol*., pp. 35-42.
310. Ali S, Haq I and Iqbal J. 2004. Role of additives on the secretion of citric acid from *Aspergillus niger*. *Proc. 2nd Nat'l. Conf. Biol*., pp. 55-60.
311. Shamim N, Ali S, Ashraf H and Haq I. 2004. Effect of some metallic ions on activity of alpha amylase produced by *Bacillus licheniformis* GCBCM-25. *Proc. 2nd Nat'l. Conf. Biol*., pp. 97-102.
312. Abdullah R, Ali S and Haq I. 2004. Effect of inoculum size and starch on alpha amylase productivity by *Aspergillus oryzae* in submerged culture. *Proc. 2nd Nat'l. Conf. Biol*., pp. 103-108.
313. Aslam A, Ali S, Abdullah R and Haq I. 2004. Production of invertase by *Saccharomyces cerevisiae* mutant NA-47 using sucrose as a substrate. *Proc. 2nd Nat'l. Conf. Biol*., pp. 121-126.
314. Ali S, Haq I and Iqbal J. 2002. Study of kinetic parameters for citrate over production by an *Aspergillus niger* mutant Ng-110 using shake flask technique. *Proc. 1st Nat'l. Conf. Biol*., pp. 45-52.
315. Haq I, Shafiq K and Ali S. 2002. Kinetic analysis of invertase production capacity of two yeast cultures. *Proc. 1st Nat'l. Conf. Biol*., pp. 53-58.
316. Haq I, Mirza S, Saadia A, Shafiq K, Ali S and Qadeer MA. 2002. Microbial examination of packed dates available in local markets. *Proc. 1st Nat'l. Conf. Biol*., pp. 103-106.
317. Haq I, Inam N, Shafiq K, Ali S and Qadeer MA. 2002. Studies on incidence of coliform in cheese. *Proc. 1st Nat'l. Conf. Biol*., pp. 107-112.
318. Haq I, Ali S, Qadeer MA and Iqbal J. 2002. Nitrogen requirement for enhanced citric acid production by filamentous fungi *Aspergillus niger*. *Proc. 1st Nat'l. Conf. Biol*., pp. 123-129.

SOME OTHER SIGNIFICANT PUBLICATIONS

International, Biotechnology in Public Versions (BIP Articles)

319. Haq I, Ali S, Qadeer MA and Iqbal J. 2002. Citric acid fermentation by mutant strain of *Aspergillus niger* GCMC-7, using molasses based medium. *Electronic J. Biotechnol.*
320. Ali S, Haq I and Qadeer MA. 2002. Novel technique for microbiological production of L-Dopa (3,4-dihydroxy phenyl L-alanine) by a mutant culture of *Aspergillus oryzae. Electronic J. Biotechnol.*
321. Ali S, Haq I and Iqbal J. 2002. The role of Mn^{++} ions for high and consistent yield of citric acid in recycling fed-batch bioreactor system and its novelty on kinetic basis. *Electronic J. Biotechnol*.

International Genebank Submissions (TIGR BAC Ends)

322. Meksem K, Ishihara H, Koo H, Shultz J, Ali S, Iqbal J, Lightfoot DA and Town CD. 2003. End sequencing of BACs from a fingerprint physical map of the causative agent of soybean sudden death syndrome, *Fusarium verguliforme* (ex *Fusarium solani* f. sp. glycines). Genebank CG812652-CG808501 (4,151 sequences).
323. Meksem K, Ishihara H, Koo H, Shultz J, Ali S, Iqbal J, Town CD and Lightfoot DA. 2003. *Fusairium solani f.* sp. glycines whole genome shotgun library, *Fusarium solani f.* sp. glycines, genomic survey sequence. Genebank (1,987 sequences).

Book Contributions / Chapters

1. Irfana Mariam, Sikander Ali and Saeed Ahmad Nagra. 2008. Biosynthesis of Calcium Gluconate by *Aspergillus niger* in Shake Flask. In: Modern Multidisciplinary Applied Microbiology. Publishers: Wiley-VCH Verlag GmbH Co., KGaA. DOI 10.1002/9783527611904.ch35 (ISBN: 9783527316113).

International Research Projects

1. Hillier WJ, Winger AM, James SG and Ali S. 2011. Metabolic engineering of photosynthetic pathways in cyanobacteria for biofuel generation.
2. Lightfoot DA, Meksem K, Shultz JL and Ali S. 2003. FSKM, DNA finger printing of *Fusarium solani*.
3. Ali S and Shultz JL. 2003. Autoradiobiography through radioactive probes (S^{35}, P^{33}).

National Research Projects

1. Co-Principal Investigator in the Project 20-647/R&D/06/390 entitled "Process development for the manufacture of thermophilic alpha amylase for desizing operation in textile industry" (Rs. 3.924,292 million, 2006-2008, sponsored by Higher Education Commission).
2. Principal Investigator in the Project PSF/P&D/Act.Sci.(126)/05 entitled "Research support program for active scientists and technologists of Pakistan" (Rs. 0.925 million, 2006-2007, sponsored by Pakistan Sciences Foundation).
3. Co-Principal Investigator in the Project 20-89/Acad-R/2003-618 entitled "Process development for the production of enzyme invertase by *Saccharomyces cerevisiae*" (Rs. 1.982 million, 2003-2005, sponsored by Higher Education Commission).
4. Worked as 'Research Associate' on the Project PSF/RES/P-GC/BIO(283) entitled "Citric acid fermentation of molasses by *Aspergillus niger* GCMC-7 in stirred fermentor" (Rs. 0.572 million, 1998-2000, sponsored by Pakistan Science Foundation).
5. Enhanced production of a thermostable laccase from *Aspergillus versicolor* for detoxification of phenolic dyes in textile effluents. 2020. PHEC (Rs. 9.82 million).
6. Process development for the production of novel terpene-based industrial biofuels from a metabolically engineered yeast strain. 2020. PHEC (Rs. 6.65 million).

Technical Research Reports

1. Hillier WJ, Ali S, Winger AM and James SG. 2011. Metabolic engineering of photosynthetic pathways in cyanobacteria for biofuel generation. Final Endeavour Research Report. Australia Awards, Adelaide, Australia.
2. Haq I, Ali S, Hameed U, Saleem A, Farooq A and Qadeer MA. 2009. Process development for the manufacture of thermophilic alpha amylase for desizing operation in textile industry. Final Technical Report, HEC, Islamabad.
3. Haq I, Ali S and Aslam A. 2007. Process development for the production of enzyme invertase by *Saccharomyces cerevisiae.* Final Technical Report, HEC, Islamabad.
4. Ali S, Hong J, Shuli L and Changying H. 2004. Technics of glucose oxidase-catalase (GOX) preparation, downstreaming and applications in biofertilizer & beer production. TCDC-Technical Report, HRIM, Baoding, Hebei, China.
5. Meksem K, Ali S, Shultz J and Lightfoot DA. 2003. FSKM finger printing and soybean genome map. Fulbright Technical Report. USDA, New York, USA.
6. Haq I, Ali S, Qadeer MA and Hasham M. 2000. Citric acid fermentation of molasses by *Aspergillus niger* in stirred fermentor. Final Technical Report, PSF, Islamabad.

Professional Experience

1. More than 20 years of teaching and research experience with about 16 years of Post Ph.D experience in GC University Lahore.
2. Availed Endeavour Research Fellowship for Post-Doc studies at ANU, Canberra ACT, Australia (2011).
3. Availed Fulbright Scholarship for Pre-Doc studies at SIU, Carbondale, IL, USA (2002-2003).
4. Skilled in Computer programming and software.
5. National cadet corps (NCC) training.
6. Expert in enzyme kinetics and statistical analysis of raw data.
7. Adept in Pharos-FX Image, Versadoc Imaging and UV/IR Florescence Integration Analysing.

INTERNATIONAL & NATIONAL SEMINARS//CONFERENCES/WORKSHOPS

1. International Conference on 'Food Security and Biotechnology' April 26-27, 2020 at COMSAT Secretariat, Islamabad, Pakistan.
2. International Conference of Research on 'Oncology & Cancer Sciences (IC-ROCS) & Pakistan Cancer Awareness Program (P-CAP)' January 1, 2020 at College of Pharmacy, University of the Punjab, Lahore, Pakistan.
3. 2nd International Conference on 'Recent Advances in chemical Sciences' March 20-22, 2019 at Chemistry Block, GC University Lahore, Pakistan.
4. National Seminar on 'Role of Modern Tools in Improving quality of Teaching-Learning Process' June 21, 2018 at Virtual University, Lahore, Pakistan.
5. 3rd International Conference on 'Biosciences' (ICB-2018) May 9-11, 2018 at Science Block, GC University Lahore, Pakistan.
6. All Pakistan 'DICE-Agriculture and Food Sciences Event' November 7-8, 2017 at University of Agriculture, Faisalabad (UAF), Pakistan.
7. 7th ICBB International Conference on 'Biotechnology and Bioengineering' October 25-27, 2017 at Department of Molecular Biology, Virtual University of Pakistan, Lahore, Pakistan.
8. International Conference on 'Trends and Prospects on Molecular Biosciences' October 23-24, 2017 at Institute of Biochemistry and Biotechnology (IBB), University of the Punjab, Lahore.
9. International Conference on 'Latest Trends in Domestic and Wild Animal Genomics and Biotechnology' November 21-22, 2016 at Department of Molecular Biology, Virtual University of Pakistan, Lahore, Pakistan.
10. Two Days Workshop on 'Project Formulation Training by Pakistan Science Foundation' March 30-31, 2016 at GC University Lahore, Pakistan.
11. Two Days Training Workshop on 'Fermenter Studies and End-Product Analysis by HPLC' June 29-30, 2015 at Institute of Industrial Biotechnology (IIB), GC University Lahore, Pakistan.
12. International Conference on 'Environment and Sustainable Development' December 16-17, 2014 at Sustainable Development Study Centre (SDSC), GC University Lahore, Pakistan.
13. 2nd International Conference on 'Biotechnology for Sustainable Development' November 26-28, 2014 at Institute of Industrial Biotechnology (IIB), GC University Lahore, Pakistan.
14. 1st International Two Day Conference on "Current Innovation and Challenges in Pharmaceutical Research" October 23-24, 2014 at Department of Chemistry, GC University Lahore.
15. International Seminar on 'Biochemistry, Molecular Biology and Bioinformatics' October 23, 2014, at Institute of Industrial Biotechnology (IIB), GC University Lahore.
16. International Conference on "Innovative Biological and Public Health Research" May 6-7, 2014 at Department of Zoology, GC University Lahore.
17. 1st International Global Conference on 'Phycology Perspectives' February 21-23, 2014, at Department of Botany, GC University Lahore.
18. Seminar and Launching Ceremony of 'HEJ Information Centre, University of Karachi' April 5, 2013, at Institute of Industrial Biotechnology (IIB), GC University Lahore
19. 1st Inter Collegiate and University Science Model and Poster Competition on 'Impact of Biotechnology in Today's World' March, 12, 2013 at Department of Biotechnology, Lahore College for Women University (LCWU), Lahore.
20. 3rd Botanical Conference on 'Action Plan on Botanic Gardens in Pakistan' February 5-7, 2012 at SDSC and Department of Botany, GC University Lahore.
21. International Conference on 'Advances in Applied Phycology Research for Biofuel Generation' August 16-20, 2011 at Queen Tomb Grand Hall, University of Sydney, The Island Campus, NSW, Australia.

22. Workshop on 'Biomarkers for oxygen evolution in cyanobacteria and their role in lipid synthesis under starvation' June 21-24, 2011 at John Curtain Research School of Medical Sciences, The Australian National University, Canberra ACT, Australia.
23. Seminar on 'Enterprising Research through University Industry Portal (UIP)' May 17, 2010 at Bokhari Auditorium, GC University Lahore.
24. 1st Asia-Pacific International Conference of Biological Sciences March 14-16, 2010 at Department of Botany, GC University Lahore.
25. 2nd Botanical Conference on 'Action Plan on Botanic Gardens in Pakistan' February 2-5, 2009 at Department of Botany, GC University Lahore.
26. Seminar on 'Commercialization of Biotechnology Products' October 30, 2007 at Lahore Chamber of Commerce and Industry (LCCI), Lahore.
27. National Seminar on 'Biomanufacture Technology of Enzymes for Detergents and Leather Industries' April 27-28, 2007 at PCSIR Labs Complex, Lahore.
28. National Symposium on 'Biotechnology for Economic Prosperity' July 24-26, 2006 at Nathiagali.
29. 1st International Conference on 'Business Opportunities in Industrial Biotechnology' January 17-19, 2006 at Institute of Industrial Biotechnology, GC University Lahore.
30. Seminar on 'Types of Fermentor' by Judith Laws, Bioengineering, Switzerland on February 22, 2006 at Institute of Industrial Biotechnology, GC University Lahore.
31. BioForum, March 13-15, 2006 at National Centre of Excellence in Molecular Biology (CEMB), Lahore.
32. 1st Botanical Conference on 'Action Plan on Botanic Gardens in Pakistan' March 24-25, 2006 at Department of Botany, GC University Lahore.
33. 1st Meeting of Nobel Laureates (Dr. Charles H Towns, USA and Dr. Gerardus't Hooft, The Netherlands) with Pakistani Students and Young Scholars, March 27-31, 2006 at GC University Lahore.
34. BioMicroWorld-2005, March 15-18, 2005 at FABA Convention Centre, Badajoz, Spain.
35. 18th FAOBMB Symposium, November 20-23, 2005 at Ewan-e-Iqbal, Lahore.
36. A Symposium-Workshop on the 'Applications of Molecular Biology Research in Agriculture and Health' March 27-31, 2004 at CEMB Lahore.
37. 2nd National Conference of Biology April 22-24, 2004 at Biology Block, GC University Lahore.
38. Seminar on 'Wanted! Seas and Oceans - Dead or Alive?'heal on the occasion of World Environment Day on June 05, 2004 at Al-Hamra Hall-III, Lahore.
39. Workshop on 'Microbiological and Genetical Techniques' June 07-12, 2004 at Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
40. 1st International TCDC-Training Course on 'Bioenzyme Preparation in Industry' June 16-July 26, 2004 at Hebei Research Institute of Microbiology (HRIM), Baoding, Hebei, China.
41. 3rd HEC Symposium on 'Recent Developments in Molecular Biology' on September 28, 2004 at Regional Centre, Higher Education Commission, Lahore.
42. 1st National Conference on 'Industrial and Environmental Biotechnology' September 29-30, 2004 at Best Western Hotel, Islamabad.
43. 1st National Science Talent Contest (NSTC), September 09, 2004 at School of Mathematical Sciences, GC University Lahore.
44. 15th All Pakistan 'Food Science Conference' November 30, 2004 at NWFP Agricultural University, Peshawar.
45. ASA-CSSA-SSSA Annual Meetings, November 2-6, 2003 at CSA Convention Centre, Denver, Colorado, USA.
46. 96th International Conference on 'Role of Biology in Sustainable Development' April 12-16, 2003 at Four-Point Sheraton Hotel, Chicago, Illinois, USA.
47. Workshop on 'Biotechnology and Pakistan, Opportunities & Challenges' January 23, 2002 at Holiday Inn, Lahore.

48. 1st National Conference of Biology March 28-30, 2002 at Biology Block, GC Lahore.
49. 3rd International Science Conference September 26-28, 2002 at University of Arid Agriculture, Rawalpindi.
50. 1st National Symposium on 'Frontiers of Chemistry' October 31, 2002 at Department of Chemistry, GC University Lahore.
51. 1st National Seminar on 'Agriculture in 21st Century: Role of Biotechnology' December 19, 2002 at Avari Hotel, Lahore.
52. 3rd National Conference of Plant Pathology on 'Integrated Plant Health Management' October 1-3, 2001, at National Agricultural Research Centre (NARC), Islamabad.
53. National Seminar on 'Shisham Dieback' October 2001 at Punjab Forestry Research Institute, Faisalabad.
54. International Conference on 'Cotton Biotechnology' November 12-15, 2001 at National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad.
55. 32nd All Pakistan Science Conference on 'Scientific Needs of Pakistan in the New Millennium & Role of Livestock and Agriculture' June 12-15, 2000 at Extension Management Services Academy (ESMA), Garhi Dopatta, Azad Jammu and Kashmir.
56. 7th National Conference of Plant Scientists November 14-16, 2000 at Department of Botany, University of the Punjab, Lahore.
57. 2nd National Symposium on 'Plant Tissue Culture and Genetic Engineering' June 1-3, 1999 at NARC, Islamabad.
58. 2nd National Conference of Plant Pathology & Symposium on 'Plant Diseases of National Economic Importance and their Management' September 27-29, 1999 at University of Agriculture, Faisalabad.
59. 1st National Symposium on 'Biotechnology for Sustainable Development' November 23-25, 1997 at GC Lahore.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

1. Member, Australian National Society of Plant Sciences.
2. Member, IASTED Technical Committee on Biomedical Engineering (2003-2006).
3. Member, American Society of Microbiology.
4. Member, Biotechnology International, Brussels, Belgium.
5. Life Member, Biological Society of Pakistan.
6. Life Member, Pakistan Botanical Society (PBS).
7. Member, Phytopathological Society of Pakistan.
8. Member, Environmental Protection Society (EPS) and Horticultural Society of GC Lahore (1993-1999).

International Links / Collaborations

Have signed MOUs with USA, Australia and China for research projects including fermentation of organic acids and/or enzymes.

National Collaborations

Have institutional collaboration with LUMS, PU, UVAS, UAF and NIBGE.

Professional Foreign Visits

Country	Year	Duration	Award/Scholarship
Australia	2011	6 Months	Endeavour Award
Japan	2005-2007	18 Months	MEXT Scholarship (Not Availed)
Spain	2005	10 days	BioMicroWorld-2005
China	2004	6 Weeks	TCDC Training Course

USA	2002-2003	10 Months	Fulbright Scholarship

MANPOWER TRAINED (Biotechnology, Microbiology, Botany, Environmental Sciences, Chemistry)

Supervisor in Ph.D Research Projects

1. Nazish Hameed. 2020. Registered with GC University Lahore. Topic not finalized yet.
2. Anjala Ayoub. 2020. Registered with GC University Lahore. Topic not finalized yet.
3. Syeda Wajeeha Khalid. 2019. Registered with GC University Lahore. Topic not finalized yet.
4. Amna Wasim. 2019. Registered with GC University Lahore. Topic not finalized yet.
5. Nasir Ali. 2019. Registered with GC University Lahore. Topic not finalized yet.
6. M. Umar Hayyat. 2017. Registered with GC University Lahore. Physiochemical characterization and role of isolated indigenous bacteria in the degradation and detoxification of textile industrial effluent (Co-Supervisor).
7. Arshad Ali. 2016. Registered with GC University Lahore. Immobilization of thermophilic peroxidases from *Aspergillus versicolour* for improved degradation of waste water aromatics.
8. Hameed Ullah Rafi. 2015. Registered with University of the Punjab, Lahore. Studies on the improvement of *Yarrowia lipolytica* strain for the production of extracellular lipases under liquid culture (Co-Supervisor).
9. Nowshad Bibi. 2013. Registered with GC University Lahore. Mutagenesis of a locally isolated *Aspergillus oryzae* for the enhanced production of intracellular tyrosinases using submerged culture. Completed 2018.
10. Dr. Rashid Mahmood. 2014. Registered with GC University Lahore. Physiochemical characterization and role of isolated indigenous bacteria in the degradation and detoxification of textile industrial effluent. Completed 2016 (Co-Supervisor).
11. Dr. Aafia Aslam. 2011. Registered with GC University Lahore. Studies on the submerged fermentation of invertase by *Saccharomyces cerevisiae*. Completed 2014 (Co-Supervisor).

Supervisor in M.Phil Research Projects

1. Laraib Fatima (0303-MPHIL-BIO-T-21). 2023. *Agaricus arvenesis*-mediated silver nanoparticles for improved catalytic stability of tyrosine hydroxylase towards L-dopa production.
2. Aroona Saleem (0205-MPHIL-MB-21). 2023. *Livistona chinensis*-mediated facile green synthesis of silver nanoparticles exhibiting biomedical potential.
3. Afra Ijaz (0209-MPHIL-MB-21). 2023. Production of genistein by fungal β-glucosidase immobilized on Al_2O_3 nanocrystals synthesized using leaf extracts of *Cajanus cajan* L. Millsp.
4. Areesha Batool (0305-MPHIL-BIO-T-20). 2022. Immobilization of *Bacillus subtilis* tyrosine hydroxylase on Al_2O_3 nanocrystals for improved stability towards L-dopa production.
5. Aqsa Zahid (0306-MPHIL-BIO-T-20). 2022. Physical entrapment of *Rhizopus oligosporus* phytase in poly (acrylamide-co-acrylic acid) hydrogels for improved nutrient uptake by plants.
6. Rabab Maqsood (0328-MPHIL-BIO-T-20). 2022. Immobilization of *Saccharomyces cerevisiae* enolase on citrate-stabilized and COOH-functionalized silver nanoparticles for fenamiphos detoxification.
7. Rameen Imran (0207-MPHIL-MB-20). 2022. Ultrasonic induction of microbial pyruvate decarboxylase for L-phenylacetylcarbinol synthesis and in-silico mechanistic analysis.
8. Hira Qamar (0214-MPHIL-MB-20). 2022. Immobilization of *Aspergillus oryzae* cutinase on ZnO nanocrystals for the degradation of insecticide and polyester waste.
9. Saba Mahboob (0223-MPHIL-MB-20). 2022. Microbial production of pectin lyase for oil extraction and docking analysis of enzyme catalysis with substrate.
10. Zia Ullah Khan. 2021. Physical adsorption of *Bacillus licheniformis* alginate lyase on silica-gel matrices for stability in algino-oligosaccharides synthesis.

11. Javaria Zafar. 2021. Improved catalytic efficiency of bacterial glutamic acid decarboxylase immobilized on mesoporous silica nanoparticles for stability in γ-amminobutyric acid synthesis.
12. Rukhma. 2021. Entrapment of *Aspergillus niger* glucose oxidase in poly (acrylamide-co-acrylic acid) hydrogels for improved stability and catalytic efficiency towards industrial applications.
13. Ansa Khalid. 2021. Immobilization of *Aspergillus oryzae* tyrosine hydroxylase on ZnO nanocrystals for improved stability and catalytic efficiency towards L-dopa production.
14. Ghanwa. 2021. Immobilization of *Rhizopus oligosporous* lipase on Al_2O_3 nanoparticles synthesized biogenically using *Mentha spicata* extracts for resolution of 2-octanol.
15. Kinza Arif. 2020. *In situ* biotransformation of synthetic glutamate to γ-amino butyric acid by an auxotrophic *Lactobacillus lactis* in polysorbate-mediated thermoaerobic process.
16. Jaweria Shehzadi. 2020. Calcium-alginate entrapment of a thermotolerant laccase from glucose-deficient auxotrophic *Aspergillus niger* for detoxification of industrial waste water.
17. Bakhtawar Shahzadi. 2020. Kinetics of cell-free hyaluronic acid production by a HNO_2-induced mutant strain of *Bacillus subtilis* in repeated aquaculture.
18. Alisha Moazzam. 2020. Biosynthesis and characterization of parietin-mediated silver nanoparticles using foliose extracts of *Xanthoria parietina* through γ-irradiation.
19. Bakhtawar Khan. 2020. Effective biotransformation of benzaldehyde to a stable L-PAC using calcium alginate entrapped pyruvate decarboxylase of an auxotrophic *Saccharormyces cerevisiae.*
20. Yousaira Masud. 2020. Pre-treatment of raw corncobs for enhanced poly(3-hydroxybutyrate) production by a derepressed mutant strain of *Bacillus licheniformis* using black-strap molasses as moisture content.
21. Qamar Mechal. 2020. *In situ* aerobic biotransformation of synthetic L-tyrosine to L-DOPA from intracellular tyrosinase of *Aspergillus oryzae* immobilized in poly (acrylamide-co-acrylic acid) hydrogels.
22. Maria Amjid. 2020. Microbiological transformation of sophoricoside to genistein using leaf extracts of *Cajanus cajan* by *Aspergillus oryzae* β-glucosidase entrapped in alginate hydrogels (In Progress).
23. Nudrat Jabeen. 2020. Biochemical co-inhibition of aconitase for continuous citric acid productivity by an auxotrophic mutant strain of *Aspergillus niger* (Co-Supervisor).
24. Maria Najeeb. 2019. Role of different microminerals and stimulators on the improved activity of xylose reductase for high-titer biotransformation of xylose to xylitol by a mutant strain of *Bacillus subtilis*.
25. Taha Shafi. 2019. Microbiological transformation of glutamate to γ-aminobutyric acid by a potential probiotic *Lactobacillus* sp. isolated from cheese waste.
26. Ramsha Saeed. 2019. Effects of some micro-minerals and stabilizers on the improved activity and stability of cutinase by a derepressed mutant strain of *Aspergillus oryzae* for polyester hydrolysis.
27. Sumbal Shaukat. 2019. Alginate lyase productivity from an auxotrophic *Bacillus licheniformis* for manufacturing of algino-oligosaccharides as prebiotic ingredients.
28. Momna Iqbal. 2019. Production of 6-tetrahydrobiopterin dependent phenylalanine hydroxylase for biotransformation of L-phenylalanine to L-tyrosine by an auxotroph of *Aspergillus oryzae*.
29. Nasir Ali. 2018. Biotransformation of L-phenylalanine to stable L-dopaquinone using pre-grown mycelia of *Aspergillus oryzae*.
30. Hannana Maryam. 2018. Production and characterization of an extracellular laterosporulin from a native bacterial isolate inhabited in acidophilic soil.
31. Sana Maqsood. 2018. Nitrous acid induced mutagenesis of *Aspergillus oryzae* for improved productivity of an extracellular L-asparaginase in batch culture.
32. Farzana Nazir. 2018. Isolation, identification, biochemical and molecular characterization of potential source of enterotoxigenic strain of *Staphylococcus aureus* from the bovine raw and mastitis milk.

33. Samiah Zahid. 2018. Production of an extracellular arginine deiminase from a native *Bacillus subtilis* under liquid culture.
34. Jaweria Mushtaq. 2018. Screening of *Streptomyces* spp. for antimicrobial activity against multidrug resistant bacteria.
35. Tahira Mubeen. 2018. Role of metallic- and non-metallic microminerals on the improved productivity of an extracellular laccase from *Coriolus versicolor*.
36. Sayyed Salman. 2017. Isolation and characterization of multi drug resistant species from clinical isolates in hospitals of Lahore region.
37. Beenish Maalik. 2017. Double mutagenesis of *Acremonium chrysogenum* for enhanced productivity of a stable cephalosporin C in batch culture.
38. Faiza Akram. 2017. Production and characterization of an extracellular laccase from thermophilic *Alkalibacillus* sp. using orange peel as a substrate.
39. Saba Mahmood. 2017. Production and characterization of an extracellular acetyl xylan esterase from a thermophilic *Alkalibacillus* sp. using linseed meal as a substrate.
40. Syeda Wajeeha Khalid. 2016. Production of extracellular inulinases from filamentous fungal cultures under liquid fermentation for application in fructose syrup preparation.
41. Amna Waseem. 2016. Production of extracellular thermophilic lipases from a mutant strain of *Rhizopus oligosporus* for olive mill waste water treatment.
42. Beenish Hassan. 2016. Extraction and characterization of a thermostable pectin methylesterase from γ-irradiated lemon peels for application in apple juice clarification.
43. Nazish Hameed. 2016. Chemically induced mutagenesis of *Xanthoria paratina* for improved parietin activity in liquid extracts.
44. Muhammad Kamran. 2016. Biosynthesis, characterization and antibacterial activity of silver nanoparticles by leaf extracts of *Lichi chinensis*.
45. Sehrish Batool. 2016. Improved production of biosurfactants from thermophilic bacterial cultures for the degradation of phenolics of industrial waste water.
46. Syed Muhammad Faheem. 2015. Immobilization of a chemically mutagenized *Bacillus subtilis* for enhanced production of acetoin.
47. Mehwish Mahrukh Iqbal. 2015. Induced mutagenesis of soil inhabited *Aspergillus niger* for improved citric acid fermentation under low heavy metal concentration of black-strap molasses.
48. Wajeeha Nawaz. 2015. Indirect biotransformation of L-tyrosine to dopamine by calcium alginate entrapped conidiospores of *Aspergillus oryzae*.
49. M. Amer Javed. 2014. Saccharification of raw sweet potato starch by *Aspergillus niger* glucoamylase for enhanced gluconic acid productivity by *Geotrichum candidum*.
50. Sahrish Fatima. 2014. A study of drug resistance of the bacterial isolates causing bone and related wound infections.
51. Ayesha Taj. 2013. Comparison of different methods of DNA extraction from human bones and short tandem repeat (STR) typing by capillary electrophoresis.
52. Nimrah Nadeem. 2013. Production of a thermophilic peroxidase by *Aspergillus versicolor* IMPP-1175 and immobilization by entrapment in calcium alginate.
53. M. Sajid Naeem. 2013. Effect of mineral ions, detergents and polyalcohols on the improved activity of a thermotolerant acetylxylan esterase from *Aspergillus nidulans* IMPP-0785.
54. Samina Rafiq. 2013. Molecular detection of mutations responsible for streptomycin and ethambutol resistance in *Mycobacterium tuberculosis* using sputum specimens.
55. Saira Noureen. 2012. Prevalence of *Toxoplasma gondii* among the pregnant women visiting public and private sector clinics.
56. Saba Nisar. 2011. Optimization for the enhanced production of β-amylase by *Alternaria* sp.
57. Amira Mukhtar. 2010. Production and partial characterization of acetyl xylan esterase from *Sporotrichum thermophile* under solid substrate fermentation.
58. M. Usman Ghani. 2009. Production of enzyme tyrosinase from mould cultures using submerged fermentation technique.

59. Bilqees Fatima. 2009. Amyloglucosidase production from *Aspergillus niger* using solid state fermentation.
60. Mian Sahib Zar. 2008. Studies on the biosynthesis and characterization of a thermostable alpha amylase from *Bacillus* species using solid state fermentation.
61. Irum Mukhtar. 2008. Partial purification and characterization of a pectin lyase by *Trichoderma harzianum.*
62. Erum Ejaz. 2008. Studies on the production of cider vinegar from apple juice.
63. Sadaf Iqbal. 2008. Production of enzyme β-galactosidase by *Kluyveromyces fragilis*.
64. Fazal Adnan. 2008. Production of alpha amylase by *Bacillus amyloliquefaciens* in stirred fermentor (Co-Supervisor).
65. Ammarah Wahid. 2007. Biosynthesis and characterization of bacterial β-amylase by submerged fermentation.
66. Hameed Ullah Rafi. 2007. Studies on the production of extracellular lipase from *Yarrowia lipolytica* NRRL-Y-1095.
67. Sadaf Bashir. 2007. Studies on the production of Zn-bacitracin by *Bacillus spp.* (Co-Supervisor).
68. Aisha Saleem. 2007. Studies on the enhanced production of thermostable α-amylase by *Bacillus licheniformis* (Co-Supervisor).
69. Andleeb Anwar. 2006. Submerged citric acid fermentation of hydrolyzed sweet potato starch by *Aspergillus niger*.
70. Mahreen Ashiq. 2006. Optimization of cultural conditions for the production of invertase by *Kluyveromyces fragilis.*
71. Samina Anwar. 2006. Utilization of hydrolyzed sweet potato starch for the production of citric acid by *Aspergillus niger* using stationary culture.
72. Mirza Ahsen Baig. 2006. Improvement of *Saccharomyces cerevisiae* for invertase production.
73. Ruqaiyya Hussain. 2006. Optimization of fermentation conditions for the bio-synthesis of glucoamylase by *Aspergillus oryzae* (Co-Supervisor).
74. Memoona Riaz. 2006. Biosyntheses of β-galactosidase by *Aspergillus oryzae.*
75. Shumaila Butt. 2006. Propagation of *Kluyveromyces fragilis* for the biosyntheses of intracellular β-galactosidase (Co-Supervisor).
76. Adil Anwar. 2006. Purification and characterization of alkaline protease from *Bacillus subtilis* (Co-Supervisor).
77. Faiza Gul. 2006. Downstream processing of α-amylase produced by *Aspergillus oryzae* (Co-Supervisor).
78. Memoona Riaz. 2006. Biosyntheses of β-galactosidase by *Aspergillus oryzae* (Co-Supervisor).
79. Ayesha Khan. 2005. Bioconversion of L-tyrosine into 3,4 dihydroxy phenyl L-alanine (L-DOPA) by *Aspergillus oryzae*.
80. Shazia Ashraf. 2005. Pre-treatment of cane molasses for the production of citric acid by *Aspergillus niger* NG-4 using shake flask technique (Co-Supervisor).
81. M. Umer Farooq Awan. 2005. Studies on the production of lipase by *Rhizopus delemar* using solid-state fermentation.
82. Javed Iqbal. 2005. Isolation and screening of *Aspergillus niger* strains from local habitats for citric acid fermentation (Co-Supervisor).
83. Kehkashan Kanwal. 2005. Production of β-galactosidase by *Aspergillus oryzae*.
84. Zill-e-Huma. 2005. Studies on the invertase biosynthesis by *Saccharomyces cerevisiae* in stirred fermentor (Co-Supervisor).
85. Saiqa Ilyas. 2005. Production of β-galactosidase by *Kluyveromyces fragilis.*
86. Amir Ishaq. 2005. Ethanol fermentation by *Saccharomyces cerevisiae* (Co-Supervisor).
87. Fatima Shoaib. 2005. Optimization of cultural conditions for the production of amuloglucosidase by *Aspergillus oryzae* (Co-Supervisor).
88. Kiran Shahzadi. 2005. Production of calcium gluconate by *Aspergillus niger* (Co-Supervisor).

89. Uzma Hameed. 2005. Improvement of *Aspergillus niger* for citric acid production (Co-Supervisor).
90. Munazza Amir. 2005. Production and purification of alpha-amylase by *Bacillus licheniformis* (Co-Supervisor).
91. Wajid Javed. 2005. Effect of potassium ferrocyanide on citric acid fermentation by *Aspergillus niger* in sucrose salt media (Co-Supervisor).
92. M. Umer Farooq Awan. 2005. Studies on the production of lipase by *Rhizopus delemar* using solid-state fermentation (Co-Supervisor).
93. Zahoor Hussain. 2005. Effect of textile's effluent on the different species of ornamental plants.

Supervisor in M.Sc/B.Sc Hons. Research Projects/Internships

1. Narmeen Jabbar (0007-BH-E-BIO-T-19). 2023. Internship at University of Veterinary and Animal Sciences (UVAS), Lahore.
2. Khadijah Sarfraz (0028-BH-E-BIO-T-19). 2023. Internship at University of Veterinary and Animal Sciences (UVAS), Lahore.
3. Horeen Kayani (0030-BH-E-BIO-T-19). 2023. Internship at Services Institute of Medical Sciences (SIMS), Lahore.
4. Jia Ali (046-BH-BIO-T-19). 2023. Internship at Centre for Applied and Molecular biology (CAMB), Lahore.
5. Anam Nadeem (0605-BH-MB-19). 2023. Internship at Chughtai Lab, Jail Road, Lahore.
6. Fatima Aslam (06015-BH-MB-19). 2023. Internship at University of Veterinary and Animal Sciences (UVAS), Lahore.
7. Amna Shahid (0628-BH-MB-19). 2023. Internship at Chughtai Lab, Jail Road, Lahore.
8. Arba Shahzadi (08-BH-BIO-T-18). 2022. Internship at Primary and Secondary Healthcare Department,
9. Government of Punjab, Lahore.
10. M. Mubashar (27-BH-BIO-T-18). 2022. Internship at PCSIR Labs Complex, Lahore.
11. Hifsa Abdullah (633-BH-MB-18). 2022. Internship at the Children's Hospital, Ferozepur Road, Lahore.
12. Tayyaba Siddiqi (1419-BH-MB-18). 2022. A comprehensive review on breast cancer immunotherapy - future perspectives and effective remedies.
13. Maheen Aslam. 2021. Improved stability of *Aspergillus niger* laccase immobilized on ZnO nanocrystals for phenolic removal in reverse micelle system (In Progress).
14. Pakeeza Noor. 2021. Improved stability of cellulase-free fungal endoxylanase immobilized on silica-gel beads for low degree of polymerization xylooligosaccharides synthesis (In Progress).
15. Syed M. Asad Ali. 2021. Internship at Institute of Agricultural Sciences, University of the Punjab, Lahore (In Progress).
16. Areesha Batool. 2020. Biotransformation of L-tyrosine to L-dopa by using intact mycelia of *Aspergillus oryzae.*
17. Syeda Qirat Abbas. 2020. Potential applications of catalytic efficiency of alginate lyase immobilized on silver nanoparticles.
18. Hira Qamar. 2020. Optimization of cutinase production by *Aspergillus oryzae* under liquid culture.
19. Saba Mahboob. 2020. Stimulation in pectin lyase activity by a UV-irradiated *Aspergillus oryzae* mutant-auxotroph under carrot-koji process.
20. Hadeesa Amanat. 2020. Lipase biosynthesis by *Aspergillus niger* using almond meal as a basal carbon source (Co-Supervisor).
21. Zainab Rana. 2020. Internship at PCSIR Laboratories Complex, Lahore.
22. Maida Saeed. 2020. Internship at University of Animal and Plant Sciences (UVAS), Lahore.
23. Affan Afzal. 2020. Internship at University of Animal and Plant Sciences (UVAS), Lahore.

24. Fiaza Shabbir Lodhi. 2019. Kinetics of improved poly(3-hydroxybutyrate) production by an L-cysteine HCl derepressed mutant of *Bacillus licheniformis*.
25. Hira Hussain. 2019. Integrated stimulation in acetyl xylan esterase activity by two different *Aspergillus* spp. under soybean koji process.
26. Touqeer Yousaf. 2019. Internship at PCSIR, Labs Complex, Lahore.
27. Syeda Mashal Naqvi. 2019. Internship at PCSIR, Labs Complex, Lahore.
28. Muhammad Younis. 2019. Internship at Allama Iqbal Medical College, Lahore.
29. Tehmina Arshad. 2018. Role of metallic and non-metallic microminerals on the improved activity of an extracellular serine protease from a thermophilic *Alkalibacillus* spp.
30. Atia Bano. 2018. Calcium alginate entrapment of *Aspergillus niger* conidiospores for citric acid productivity using tea waste extracts.
31. Amber Fatima. 2018. Internship at Allama Iqbal Medical College, Lahore.
32. Tania Mushtaq. 2018. Internship at Allama Iqbal Medical College, Lahore.
33. Maria Amjid. 2018. Roles of beneficial bacteria growing on newly-borne poultry chicks at UVAS, Lahore.
34. Bakhtawar Shahzadi. 2018. Production of kojic acid.
35. Sadaf Sayyed. 2018. Isolation of phytase producing bacterial and fungal cultures.
36. Mahnoor Malik. 2018. Studies on the microbiological techniques involved in the examination of bacterial biofilms.
37. Arooba Saeed. 2018. Examination of some blood, urine, sputum and faecal samples of patients admitted in Mayo Hospital Lahore.
38. Hajrah Usmani. 2017. Biochemical characterization of an intracellular tyrosinase extracted from two different strains of *Lentinula edodes* (Berk.) for higher dopamine activity.
39. Ahmad Hamza Tahir. 2017. Studies on the production of CMCase by mushroom cultivation.
40. Shabahat Khan. 2017. Ethyl methane sulfonate induced mutagenesis of *Bacillus subtilis* for improved protopectinase productivity in batch culture.
41. Taha Shafi. 2017. Study of Y-STRs haplotype diversity in Punjabi population of Pakistan.
42. Nibat Fatima. 2017. PCR-based detection of Newcastle disease virus in commercial vaccine.
43. M. Ahmad. 2017. Isolation of endophytic fungi from *Taxus* plants.
44. Naira Francis. 2017. Identification and differential expression of ripening related genes in elite Pakistani mango cultivars.
45. Fizza Shoukat. 2017. Detection of the Newcastle disease virus through the inoculation of commercially available attenuated vaccine, merial in the ten embryonated eggs.
46. Huma Riaz. 2017. Methylenetetrahydrofolate reductase (MTHFR) gene polymorphism and maternal risk for children with Down syndrome.
47. Huma Fatima. 2017. Morphological and molecular characterization of *Aspergillus* species from stored maize (*Zea mays L.*) grain.
48. Mahrukh Ilyas Awan. 2017. Studies on some acute laboratory techniques for medical diagnosis.
49. Anam Shahzadi. 2017. Bacitracin production by an indigenous *Bacillus* sp. (Co-Supervisor).
50. Saba Rasool. 2017. Neomycin production in soil-borne filamentous fungal culture (Co-Supervisor).
51. Ayesha Noor. 2016. Induced mutagenesis of *Acremonium chrysogenum* for enhanced cephalosporin C production under solid substrate fermentation.
52. Hafiza Mehr Tabbasum. 2016. Study of genes involved in ripening process in ethylene treated mangoes.
53. Afroz Iftikhar. 2016. Molecular characterization of *Canine babiosis* in ticks and dogs.
54. Maria Shahid. 2016. Estimation of cellulose and lignin contents in natural plant extracts.
55. Leeza Tariq. 2016. Cloning and molecular characterization of genes expressed during tomato ripening.
56. Momna Iqbal. 2016. Role of glycerol on cephalosporin C production by *Acremonium chrysogenum* (Co-Supervisor).

57. Ayesha Ghulam Nabi. 2016. Role of some trace elements on citric acid fermentation by *Saccharomyces kluyveri* using nitrogen enriched mineral sat media (Co-Supervisor).
58. Hafiza Sana Amin. 2016. Extraction and partial purification of extracellular laccases from *Agaricus bisporus* (Co-Supervisor).
59. Tahira Mubeen. 2016. Extraction and partial purification of extracellular laccases from *Coriolis versicolor* (Co-Supervisor).
60. Saadia Liaqat. 2016. Role of ammonium ions on citric acid fermentation of cane molasses by *Aspergillus niger* (Co-Supervisor).
61. Iqra Aslam. 2016. Production of cephalosporin C by *Acremonium chrsogenum* under solid substrate fermentation (Co-Supervisor).
62. Mubashir Hassan. 2015. Biochemical evidence of cephalosporin C in a pharma-waste inhabited *Acremonium* spp. using L-lysine enriched raw expeller soybean meal.
63. Noor-E-Hira. 2015. Characterization of existing and novel PDZ proteins in *Arabidopsis thaliana*.
64. Misha Hussain. 2015. Transcriptomic analysis of ripening in mango (*Mangifera indica* L) cultivars SB Chaunsa and Anwar Ratole.
65. Fareeha Hassan. 2015. Molecular analysis of ripening in mango (*Mangifera indica* L) cultivars Sindhri and Kala Chaunsa.
66. Saba Mushtaq Bajwa. 2015. Techniques involved in DNA barcoding.
67. Ayesha Siddiqa. 2015. Immobilization of *Bacillus licheniformis* for improved productivity and stability of citric acid in Vogel's media (Co-Supervisor).
68. Sidra Afzal. 2015. Xylitol evidence in a mutant of *Bacillus subtilis* using corncobs detoxified with soaked aqueous ammonia (Co-Supervisor).
69. Faiza Sadiq. 2015. Microbiological transformation of penicillin N to deacetoxy cephalosporin C by *Aspergillus oryzae* (Co-Supervisor)
70. Syeda Wajeeha Khalid. 2014. An overview of Bunny's industry, Lahore, Pakistan.
71. Fatima Riaz. 2014. Immobilization of *Aspergillus fumigatus* IMPP-0214 laccase for improved activity, thermostability and dye decolorization (Co-Supervisor).
72. Aroosa Gulam Hussain. 2014. Improved 2,3-butanediol production from a thermophilic *Streptococci* predominant bacterial consortium under sodium cholride stress (Co-Supervisor).
73. Ayesha Khalil. 2014. Enhanced production of novel alkaline thermophilic lipase from soil-inhabited bacterial consortium (Co-Supervisor).
74. Maryam Khurshid. 2014. Biodegradation of 4-nitroaniline and some related aromatics by *Bacillus*-dominant thermophilic bacterial consortia (Co-Supervisor).
75. Amna Waseem. 2014. An overview of Bunny's industry, Lahore, Pakistan.
76. Ayesha Akram Bhatti. 2014. Biochemical analysis and characterization of chemically pre-treated whole rice straw fermented by *Aspergillus versicolor* IMPP-1175 (Co-Supervisor).
77. Mehwish Mahrukh Iqbal, Saba Aslam Cheema, Tayyeba Aqeel, Maryam Tahir and Muniba Shafiq. 2013. A survey of different biotechnological processes performed at FBRC laboratories in PCSIR Complex, Lahore.
78. Habiba Rashad. 2013. Production of ferulic acid esterase by *Geotrichum candidum* (Co-Supervisor).
79. Sumaira Iqbal. 2013. Farnesol biosynthesis by a newly isolated *Saccharomyces cerevisiae* in stationary culture (Co-Supervisor).
80. Saiqa Naseer. 2013. Isolation and identification of blood pathogens.
81. Atrooba Saleemi. 2013. RNA interference and molecular techniques to eliminate its activity for the isolation of pure DNA.
82. Mirza Khursheed Alam. 2012. Improving extracellular production of an alkali-resistant glucoamylase from a newly isolated *Rhizopus* spp. under solid-state fermentation.
83. Ghanwa Ahmad. 2012. Production of an acidic lipase from *Candida utilis* NRRL-Y-900 using almond meal as a solid substrate.

84. Tehreem Younis. 2012. Production of an exo-inulinase from *Candida tropicalis* NRRL-Y-1552 using blackstrap molasses as a basal substrate.
85. Farah Javed. 2012. Barley bran, a novel agricultural waste for the improved production of an extracellular laccase from a soil-inhabited *Pencillium* spp.
86. Humaira Shahzadi. 2012. Production of an exo-inulinase from a newly isolated *Aspergisllus oryzae* in modified Vogel's medium supplemented by wheat bran as a raw carbon source (Co-Supervisor).
87. Saira Atta. 2011. Production of an extracellular acetyl xylan esterase from *Penicillium notatum* NRRL-1249 under solid-state culture (Co-Supervisor).
88. Eesha Hassan. 2010. Production of serine protease from *Rhizopus delemar* by solid state fermentation.
89. Ayesha Taj. 2010. Catechol oxidase production from *Penicillium notatum* from soyabean meal under solid state fermentation.
90. Nazia Rizvi. 2010. Extraction of tyrosinase from from pre-treated biomass of *Coriollus* spp.
91. Masooma Bukhari. 2010. Lipase biosynthesis from *Aspergillus niger* using solid state fermentation.
92. Zahra Kausar. 2010. Tyrosinases from *Daldinium* spp.
93. Nadia Aslam. 2009. Propagation of *Candida utilis* for the microbial transformation of L-tyrosine to L-dopa.
94. Nazia Zafar. 2009. Production of glucoamylase from *Aspergillus awamori* by solid state fermentation.
95. Saba Nisar. 2009. Production of β-amylase from *Bacillus subtilis* by solid state fermentation.
96. Amber Nawab. 2008. Solid substrate fermentation of alkaline protease from *Bacillus licheniformis* IIB-6 and its application in cheese formation (Co-Supervisor).
97. Kanwal Manzoor. 2008. Ethanol production by free and immobilized *Saccharomyces cerevisiae* GC-IIB-31 under stationary culture (Co-Supervisor).
98. Asia Rehman. 2008. Effect of L-ascorbic acid on the production of 3,4-dihydroxy L-phenylalanine by locally isolated mould cultures of *Aspergillus oryzae* (Co-Supervisor).
99. Rabia Saleem. 2007. Studies on the propagation of *Aspergillus oryzae* for 3,4 dihydroxy phenyl L-alanine (L-Dopa) production.
100. Rabia Rafique. 2007. Influence of ammonium ion addition on citric acid fermentation of hydrolysed sweet potato starch by *Aspergillus niger* IIB-A6.
101. Bilqees Fatima. 2006. Isolation and screening of mould cultures for the production of enzyme amyloglucosidase.
102. Sabahat Umar. 2006. Shake flask studies on the biosynthesis of enzyme beta-galactosidase by *Saccharomyces fragilis* (Co-Supervisor).
103. Maham Rauf. 2006. Production of enzyme invertase by *Saccharomyces cerevisiae* for the preparation of inverted syrup (Co-Supervisor).
104. Asma Iftikhar. 2006. Ethanol fermentation of molasses by yeast.
105. Sadaf Bashir. 2005. Citric acid fermentation of ferrocyanide treated cane molasses by surface culture technique.
106. Asma Faqir. 2005. Production of amyloglucosidase from *Rhizopus* spp (Co-Supervisor).
107. Aisha Saleem. 2005. Nutritional studies of a mutant strain of *Saccharomyces cerevisiae* for invertase production in shake flask (Co-Supervisor).
108. Erum Ejaz. 2005. Studies on the biosynthesis of xylanase by *Bacillus* spp. using solid-substrate fermentation.
109. Shumaila Butt. 2004. Improvement of *Cephalosporium acremonium* strain for the production of cephalosporin-C using ultraviolet radiations (Co-Supervisor).
110. Afshan Saeed. 2004. Studies on the N-methyl N-nitro N-nitroso guanidine treatment of *Cephalosporium acremonium* for cephalosporin-C biosynthesis in shake flask.
111. Ruqaiya Hussain. 2004. Improvement of *Aspergillus niger* with N-methyl N-nitro N-nitroso guanidine for xylanase production.

112. M. Umar Hayyat. 2004. Optimization of cultural conditions for production of invertase by *Saccharomyces cerevisiae* (Co-Supervisor).
113. Shazia Kanwal Malik. 2004. Pre-treatment of bagasse for the enhanced production of cellulases by *Trichoderma viride*.
114. Uzma Kanwal. 2003. Improvement of *Aspergillus niger* strain by UV irradiation for enhanced production of xylanase.
115. Kiran Shahzadi. 2003. Solid-state fermentation of cellulases by *Trichoderma harzianum* (Co-Supervisor).
116. Fatima Shoaib. 2003. Shake flask studies on the biosynthesis of antibiotic cephalosporin-C by *Cephalosporium acremonium*.
117. Kehkashan Kanwal. 2003. Production of antibiotic cephalosporin-C by surface culture method by *Cephalosporium acremonium*.
118. Uzma Hameed. 2003. Shake flask studies on the production of cellulases by *Trichoderma harzianum* (Co-Supervisor).
119. Nadia Shamim. 2002. Effect of surfactants on the biosynthesis of alpha amylase by *Bacillus subtilis* (Co-Supervisor).
120. Aamir Ishaq. 2002. Kinetics of citric acid fermentation by *Aspergillus niger* (Co-Supervisor).
121. Amna Ehsan. 2002. Biosynthesis of xylanase by submerged fermentation from *Aspergillus niger* using shake flask technique.
122. M. Umer Farooq Awan. 2002. Lipase biosynthesis by *Rhizopus oligosporus* using agricultural by products.
123. Mirza Ahsen Baig. 2002. Optimization of cultural conditions for the production of enzyme β-fructofuranisidase from *Saccharomyces* species isolated from *Phoenix dactylifera* (Co-Supervisor).