

CURRICULUM VITAE OF DR. FATMA HUSSAIN

Name FATMA HUSSAIN
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1. Academic Qualifications:

Degrees	Year	Institute	Subjects/specialization
SSC	1987	Laboratory Girls High School, Faisalabad	Science
F.Sc.	1990	Govt. College for Women, Faisalabad	Pre-medical
B.Sc.	1992	Govt. College for Women, Faisalabad	Chemistry, Botany, Zoology
M.Sc.	1995	University of Agriculture, Faisalabad	Biochemistry
Ph.D.	2009	University of Agriculture, Faisalabad	Biochemistry

2. Academic Experience

More than seventeen years of teaching and research experience (including 12 years post-PhD experience)

Science Teacher	01-09-1998 to 21-02-2000
Quality Control Executive	22-02-2000 to 10-03-2004
Lecturer	01-07-2004 to 15-11-2009
Assistant Professor (adhoc)	16-11-2009 to 14-02-2011
Lecturer (BPS)	15-02-2011 - 30-08-2019
Associate Professor (BPS)	31-08-2019 to date

3. Research Interests

Diabetes mellitus and related complications, Natural products, Bioactive compounds with antidiabetic potentials, Identification and associations of Single Nucleotide Polymorphisms (SNP) with type 2 diabetes, Differentially expressed genes in diabetes mellitus, Redox Signaling and Biomarkers in Ageing - Healthy Ageing and Longevity, Dermatological disorders, Sexually transmitted infections, Application of big data, AI, data mining, IOMT and related algorithms in health care.

4. Trainings

Institution	Training	Year
Rehman Computer College, Faisalabad	Diploma in Computer Applications	1998
Rehman Computer College, Faisalabad	Certificate in English Language	1998
The Coca Cola Export Corporation, Lahore	Statistical Process Control Course	2000
The Coca Cola Export Corporation, Lahore	Statistical Process Control Course	2001
University of Agriculture, Faisalabad	Research Orientation Program	2004
University of Agriculture, Faisalabad	Staff Development Course by HEC	2005
Nuclear Institute for Agriculture and Biology (NIAB), Faisalabad	The Safety Measures in the use of Radiation in Agriculture and Biology	2006
National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad	National Training Course on Handling and Use of Laboratory Animals for Biotechnology and Biomedical Research	2 – 4 April 2013,
Department of Chemistry & Hi-Tech Laboratories, University of Agriculture, FSD	Training Workshop on Advanced Chemical Techniques in Natural and Applied Sciences	10-12 September, 2015
US-Pakistan Center for Advanced Studies in Agriculture & Food Security University of Agriculture, Faisalabad	Applications of Bioinformatics in Genomics	16-17 September, 2015
Office of Research, innovation and commercialization (ORIC), University of Agriculture, Faisalabad.	Capacity building workshop Biosafety measures in Agriculture	February, 20-21, 2017
Quality Enhancement Cell, University of Agriculture, Faisalabad.	Workshop/Training on QEC Self-Assessment Proforma	November 20, 2018
Department of Bioinformatics & Biotechnology, GC University, Faisalabad	HANDS-ON Training on NGS Data Analysis	April 12-13, 2021
COMSTECH Secretariat, Islamabad	ICCBS International Workshop on “Chemical Safety & Security in Academic and Industrial Laboratories”	August 24 - 25, 2021
COMSTECH Secretariat, Islamabad	For virtual participation in the “International training in Randomized Controlled Trials (RCTs)”	23-24 Sept. 2021
COMSTECH Secretariat, Islamabad	For virtual participation in the “World Food Day Webinar: Our Actions Are Our Future”	14 OCT., 2021

Department of Biochemistry, University of Agriculture, Faisalabad, Pakistan	2 nd National two-day training Workshop on “Bioassays for Exploration of Bioactives”	25-26 OCT., 2021
COMSTECH Secretariat, Islamabad	COMCEC-COMSTECH Training and Workshop “New Breeding Technologies for Food and Nutritional Security”	Nov 30th – Dec 2nd, 2021
Department of Physiology, GC University, Faisalabad	Two-Days National Symposium & Hands on Practice On “Lab Animal Handling and its Applications in Biomedical Research”	February 17-18, 2022
Pakistan Academy for Rural Development, Peshawar	Three-Day Training Course on “Essential IT Skills for Government Officials”	August 28-30, 2023
Health Research Institute-NIH Research Centre, Faisalabad Medical University, Faisalabad	2 Day Workshop Research Methodology for Research Scholars	February 20-21, 2024

5. Projects

Project Title	Duration	Total funding	Funding Agency	Status
Development of Natural Product for Diabetes Mellitus Treatment	3 years	3.689 million	HEC under NRPU (2015)	Completed

6. Service Activities:

A: Teaching following courses to Ph. D, MPhil, MSc, MSc (Hons) and BSc (Hons) classes:

- i. Introduction to Biochemistry
- ii. Enzyme kinetics
- iii. Enzyme Biotechnology
- iv. Biochemistry of Lipids
- v. Water and Mineral Metabolism
- vi. Biochemistry of Vitamins
- vii. Introduction to Fermentation Biotechnology
- viii. Medical Biochemistry
- ix. Elementary Biochemistry
- x. Biochemistry of Metabolism
- xi. Chemistry and Fundamental Biochemistry
- xii. General Biochemistry
- xiii. Cellular Biochemistry
- xiv. Concepts of Biochemistry

- xv. Molecular Biochemistry
- xvi. Bioenergetics
- xvii. Biochemical Regulators
- xviii. Advanced Fermentation Biotechnology

B: Other Academic, extracurricular, outreach activities

- i. **Member** – Faculty Board (January 2014-January 2017, January, 2023 – To date)
- ii. **Member:** Senate (w.e.f February 2023)
- iii. **Wheat Campaign** 29 October – 6 November, 2022 (Dajkot)
- iv. **Wheat Campaign** 7-14 November, 2023 (Dajkot)
- v. **Member** – Faculty vigilance committee (w.e.f. 21 November 2014)
- vi. **Member** – Departmental Library committee, Department of Biochemistry, University of Agriculture, Faisalabad (2006-2017)
- vii. **Secretary**, Staff meeting, Department of Chemistry & Biochemistry, University of Agriculture, Faisalabad (w.e.f. May, 2012 to September, 2015).
- viii. **Secretary**, Staff meeting, Department of Biochemistry, University of Agriculture, Faisalabad (w.e.f. January 11, 2019 to date).
- ix. **Co-adviser**, Department of Biochemistry, University of Agriculture, Faisalabad (6-9-2011- march, 2016)
- x. **Member** – Departmental committee for security, cleanliness and plantation (w.e.f. 19-03-2016)
- xi. **Department coordinator**, Sport Gala (w.e.f August 2015)
- xii. **TGM Tutor** w.e.f. 27-08-2021 to February, 2024 (SR-3/16/20-21/4806) – Khalid Bin Waleed -1
TGM Tutor (2005-2010; 13th August 2014 - 2016, T.G name/# Bahadur Yar Jang-2), University of Agriculture, Faisalabad
- xiii. **HEC Approved PhD Supervisor**
- xiv. **Reviewer:** Annals of Saudi Medicine, International Research Journal of Plant Science, International Journal of Medicinal Plants Research, International Research Journal of Plant Science, Journal of Medicine and Medical Sciences, Clinical Medicine Insights: Dermatology, Clinical Medicine Insights: Endocrinology and Diabetes, Biochemistry Insights, Progress in Nutrition.
- xv. **Member:** Program Team Self-Assessment Report (SAR)-Quality Enhancement Cell, University of Agriculture, Faisalabad

- xvi. **Convener:** Departmental QEC OBE
- xvii. **Member:** Higher Education Commission (HEC) Program Institutional Performance Evaluation (IPE), University of Agriculture, Faisalabad

C: Academic / Professional Distinctions

1. **Quaid-e-Azam Scholarship** - SSC Examination 1987.
2. **Certificate of Appreciation** - organized JUNOON CONCERT, held on August 4th, 2001 at Iqbal Stadium, FSD
3. **Certificate of Appreciation** - Successful implementation of ISO-9001-2000 CCBPL, FSD
4. **Resource person** -TCCQS - Quality Assurance Program 2004
5. **Certificates of Qualification:** Testing and Measuring equipment Calibrations, Microbiological Tests, Quality Control Tests and Analysis by CCBPL, FSD
6. **Position (2nd) holder** in “Research Orientation Program” at UAF held on September 21 – October 10, 2004.
7. **Resource Person** - Research Orientation Program at UAF held on August 8 – 20, 2005.
8. **Letter of Appreciation by VC** - Research Orientation Program at UAF held on August 8 – 20, 2005.
9. **Resource Person** - HEC Workshop on “Imparting Practical Training in Biochemical Techniques” at UAF held on February 27 – March 4, 2006.
10. **Resource Person** - Research Orientation Program (4th course) at UAF held on August 13- 27, 2007.
11. **Letter of Appreciation by VC** - Research Orientation Program (4th course) at UAF held on August 13- 27, 2007.
12. **Resource Person** - Workshop On imparting practical training in molecular and biochemical techniques. Golden Jubilee Celebrations. Department of Chemistry and Biochemistry Week June 8 – 14, 2011

Trainer: Lab. Exercise on solution preparation and chromatography

Convener: Printing and Publication Committee

23. **Convener** - Registration committee. International Conference of Biochemistry, Biotechnology and Biomaterials. (ICBBB-2016), February 22 - 24, 2016. Department of Biochemistry, University of Agriculture, Faisalabad
24. **Member** - Entertainment committee. International Conference of Biochemistry, Biotechnology and Biomaterials. (ICBBB-2016), February 22 - 24, 2016. Department of Biochemistry, University of Agriculture, Faisalabad
25. **Coordinator:** Girls Cricket team (daffodils) – Winner of Department Cricket Gala held on 14-16 April 2016.
26. **National Enrollment Drive** (Office of the Senior Tutor): 7th April 2016 – Encouraged and guided the students for active participation. Out of fifteen volunteers, four Biochemistry students (two students Zainab Rafique and M. Ghous under my supervision) were awarded shields and certificates.
27. **Member** – Registration committee. One day seminar on “Tibb Nature and Science” organized by Tibbia College, Faisalabad in coordination with UAF at Iqbal Auditorium, 21st August 2016.
28. **Member – Registration Team:** 2nd International Conference of Biochemistry, Biotechnology and Biomaterials (ICBBB-2018), December 09-11, 2018 held at Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad.
29. **Member – Registration Team:** International Symposium on Technologies and Materials for Renewable Energy, Environment and Sustainability”, February 06-07, 2019 held at Department of Chemistry, Faculty of Sciences, University of Agriculture, Faisalabad.
30. **Member – Event management committee:** 1st National Hands-on Training Workshop on Primer Designing held on September 28, 2019 organized by Molecular Care, University of Agriculture, Faisalabad.
31. **Member – Event management committee:** 10th National Hands-on Training Workshop on PCR held on November 2, 2019 organized by Molecular Care, University of Agriculture, Faisalabad.
32. **Resource person:** 11th National Hands-on Training on PCR held on November 23-24, 2019 organized by Molecular Care, Department of Biochemistry, University of Agriculture, Faisalabad.

- 33. Resource person:** National Training Workshop on Plant DNA barcoding held on December 7-8, 2019 organized by Molecular Care, Department of Biochemistry, University of Agriculture, Faisalabad.
- 34. Member organizing committee:** One Day Workshop on “**Fundamentals of Laboratory Biosafety**” organized by Department of Biochemistry, University of Agriculture, Faisalabad in collaboration with Pakistan Biological Safety Association (PBSA) Punjab Chapter – February 24th, 2020.
- 35. Member: Departmental Tenure Review Committee (DTRC)** – (Endst.No.PS-4/11105-07 dated 26-08-2021)
- 36. Resource person – Enzyme Inhibition assays (Track 5):** 2nd National two-day training Workshop on “Bioassays for Exploration of Bioactives” October 25-26, 2021 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad.
- 37. Resource person – Enzyme Inhibition assays:** 3RD Two-day training Workshop on “Bioassays for Exploration of Bioactives” November 22-23, 2022 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad
- 38. Committee member (Scientific committee):** 3RD Two-day training Workshop on “Bioassays for Exploration of Bioactives” November 22-23, 2022 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad
- 39. Convener (Registration committee):** 3RD Two-day training Workshop on “Bioassays for Exploration of Bioactives” November 22-23, 2022 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad
- 40. Committee member (Hall management committee):** 3RD Two-day training Workshop on “Bioassays for Exploration of Bioactives” November 22-23, 2022 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad
- 41. Committee member (Scientific committee):** “Symposium on Nutritional Biochemistry” October 17, 2022 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad
- 42. Convener (Registration committee):** “Symposium on Nutritional Biochemistry” October 17, 2022 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad

- 43. Convener – (Stage committee):** National training workshop on ELISA based diagnostics”
26 May, 2022 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad
- 44. Convener – (Help during Sessions committee):** National training workshop on ELISA based diagnostics” 26 May, 2022 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad
- 45. Member organizing committee:** Biochemistry Sports Gala 2022. 31st March – 2nd April, 2022
- 46. Member:** “The Scientist” Society (2022 to date)
- 47. Advisor:** SESCOB (2022 to date)

D. NUMBER OF STUDENTS GUIDED

As major Supervisor	M.Sc.	M.Phil	Ph.D.
	31	91 + 22*	3+5*

*currently enrolled

Students Produced (As Major Supervisor) - Ph.D Biochemistry

Sr. no.	Student name	Supervisory Committee	Research Title	Status
1	Naila Abdul Sattar (2006-ag-371)	Dr. Fatma Hussain Prof. Dr. Amer Jamil Dr. Raja Adil Sarfraz	Association of Vitamin D Receptor Genetic Polymorphism to the Type 2 Diabetes Mellitus in Local Population	Ph.D. degree awarded on 14-10-2016
2	Saba Zulfiqar (2006-ag-548)	Dr. Fatma Hussain Prof. Dr. Amer Jamil Dr. Nisar Ahmad	Association of RAGE gene polymorphism with type 2 diabetes mellitus in local Population.	Ph.D degree awarded on 24-05-2018
3	Javeria Hafeez (2011-ag-1237)	Dr. Fatma Hussain Dr. M. Shahid Dr. Aysha Sameen	Probing anti-diabetic potential of selected medicinal plants	Ph.D degree awarded on 26-09-2022

Ph.D Biochemistry Students – Currently under supervision

Sr. no.	Student name	Status
1	Ajwa	Research in progress
2	Muniba	Course work in progress
3	Iqra Saleem	Course work in progress

Students Produced (As Major Supervisor) - M. Phil Biochemistry (Morning and Evening)

2011		
Sr. no.	Student name	Research Title
1	M. Waqas Noor 2009-ag-552	Detection of <i>VDR</i> gene <i>Apal</i> polymorphism in patients with type 2 diabetes mellitus using PCR-RFLP method in a Pakistani population
2	Naila Abdul Sattar 2006-ag-371	Comparative analysis of antidiabetic effects, antioxidant activities and phenol contents in <i>Zingiber officinale</i> and <i>Alpinia allughas</i> (<i>Zingiberaceae</i>) rhizomes
2012		
3	Javeria Younas 2008-ag-214	<i>In vitro</i> antidiabetic evaluation of <i>Allium sativum</i> L.
4	Bushra Iqbal 2010-ag-19	Streptokinase production by <i>streptococcus equisimilis</i> UV mutated strain
2013		
5	Beenish Rao 2011-ag-1188	Alpha Amylase inhibitory activity of <i>Momordica charantia</i> , <i>Syzygium cumini</i> and <i>Nigella sativa</i>
2014		
6	Humaira Rafique 2011-ag-1158	Alpha Amylase inhibitory activities of <i>Ocimum basilicum</i> , <i>Murraya koenigii</i> and <i>Trigonella foenum-graecum</i>
7	Fatima Ikram 2010-ag-797	<i>In vitro</i> antiglycation, antioxidant, phytotoxic and phytochemical activities of <i>Moringa oleifera</i>
8	Fatima Subhani 2012-ag-634	Biodegradation of poly (3-hydroxybutyrate) (PHB): A biodegradable polymer
2015		
9	Zubaida Parveen 2012-ag-557	<i>In vitro</i> antioxidant, antiglycation, antidiabetic, phytotoxic and phytochemical analysis of <i>Mangifera indica</i> leaves
10	Komal Javed 2012-ag-558	<i>In vitro</i> antioxidant, antiglycation, antidiabetic, phytotoxic and phytochemical analysis of <i>Cassia Absus</i>
11	Javaria Hafeez 2011-ag-1237	Bioactive potentials and enzymes inhibitory profiles of <i>Allium sativum</i> L. and <i>Zingiber officinale</i> L. rhizomes
2016		
12	Muaz Ahmad 2009-ag-1244	Anti-oxidant, anti-diabetic, anti-microbial and enzyme inhibitory activities of <i>Momordica charantia</i> and <i>Syzygium cumini</i>
13	Faheem Ahmed 2013-ag-1901	Anti-oxidant, anti-diabetic, anti-microbial and enzyme inhibitory activities of <i>Ricinus communis</i>
14	Hamna Saddique 2014-ag-2251	Biological Activities of <i>Allium sativum</i> Bulb in Various Organic Fractions
15	Zainab Rafique 2012-ag-1095	Biological Activities of <i>Momordica charantia</i> in Various Organic Fractions
16	Samina Nargis 2014-ag-547	Biological activities of <i>Syzygium cumini</i> in various organic fractions
17	M. Ghous 2014-ag-2712	Biological activities of <i>Stevia rebaudiana</i> leaves in various organic solvents
18	M. Tazeem 2014-ag-593	Biochemical and pharmacological potentials of <i>Panax ginseng</i> L. rhizome
19	Sumiya Manzoor 2014-ag-9370	Biological activities of <i>Zingiber officinale</i> extracts in various organic fractions
20	Sunder Unab 2015-ag-1018	Bioactive and therapeutic potential of <i>Smilax china</i> L. roots
21	Irum Iqbal 2015-ag-1020	Bioactive and therapeutic potential of <i>Glycyrrhiza glabra</i> L. roots
22	Aisha Akram 2015-ag-1730	Bioactive and therapeutic potential of <i>Panax ginseng</i> L. roots
23	Sajila Sharif 2015-ag-1831	Bioactive and therapeutic potential of <i>Allium sativum</i> L. rhizomes

24	Abraisham Fatima 2015-ag-2448	Bioactive and therapeutic potentials of <i>Zingiber officinale</i> rhizome
2017		
25	Abida Irshad 2015-ag-1124	Bioactive and therapeutic potential of <i>Momordica charantia</i> L. fruit
26	Hina Zafar 2015-ag-1778	Bioactive and therapeutic potentials of <i>Parthenium hysterophorus</i> L. leaves
27	Aimen Noreen 2015-ag-3148	Bioactive and therapeutic potentials of <i>Stevia rebaudiana</i> leaves
28	Syedeh Saemeh Bukhari 2013-ag-1762	Bioactive and therapeutic potential of <i>Syzygium cumini</i> L. fruit

2020

Sr.no.	Student Name/Reg.no.	Research title
29	Umm-e-Ammara Warraich 2018-ag-4097	Evaluation of pharmacological activities and bioactive compounds in <i>Citrus paradisi</i> juice
30	Ansa Yaqoob 2018-ag-4106	Evaluation of Pharmacological Activities and Bioactive Compounds in Methanolic Seed Extracts of <i>Helianthus annuus</i>
31	Aqeela Qadeer 2015-ag-3047	Evaluation of Pharmacological activities and Bioactive Compounds in Methanolic Seed Extracts of <i>Trigonella foenum-graecum</i>
32	Faisal Mehmood 2018-ag-4038	<i>Coriandrum sativum</i> : Evaluation of pharmacological activities and bioactive compounds in methanolic leaves extract
33	Hoda Zahoor 2018-ag-4063	Evaluation of Pharmacological activities and Bioactive Compounds in Methanolic Seeds Extract of <i>Salvia hispanica</i>
34	Irha Basit 2018-ag-4107	Evaluation of Pharmacological Activities and Bioactive Compounds in Methanolic Leaf Extract of <i>Mentha arvensis</i>
35	Javeria Asghar 2018-ag-4081	Evaluation of Pharmaceutical activities and Bioactive compounds in Methanolic seeds Extract of <i>Cucurbita pepo</i>
36	Maham Fatima 2018-ag-4099	Evaluation of Pharmacological activities and Bioactive Compounds in Methanolic Seed Extracts of <i>Linum usitatissimum</i>
37	Marium Hayat 2018-ag-4064	Evaluation of Pharmacological Activities and Bioactive Compounds in Methanolic Seed Extracts of <i>Sesamum indicum</i>
38	Bushra Sultan 2018-ag-4039	Evaluation of Pharmacological activities and Bioactive Compounds in Methanolic Leave Extracts of <i>Trigonella foenum graecum</i> L

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Sr.no.	Name/Reg.no.	Status
39	M. Imran Afzal 2018-ag-4060	Association of somatic cells count with milk yield, milk composition, and antioxidant enzymes in Holstein Cows with Mastitis disease
40	Samia Bashir 2018-ag-4131	<i>Spinacia oleracea</i> : Evaluation of pharmacological activities and bioactive compounds in methanolic leaves extract
41	Aqsa Nawaz 2019-ag-2320	Formation and characterization of nanosuspension of <i>Cinnamomum zeylanicum</i> for enhanced bioactivities
42	Ayesha Raza 2019-ag-2322	Formation and characterization of nanosuspension of <i>Swertia chirayita</i> whole plant for enhanced bioactivities
43	Iram Batool 2019-ag-2323	Formation and characterization of nanosuspensions of <i>Terminalia chebula</i> fruits extract for enhanced bioactivities.
44	Fareeha Nadeem 2019-ag-2312	<i>Elettaria cardamomum</i> seeds extract-Development and characterization of nanosuspensions for enhanced bioactivities
45	Rizwana Jabeen 2019-ag-2362	Formation and characterization of nanosuspension of <i>Trachyspermum ammi</i> seeds extract for enhanced bioactivities.

46	Tayyab Ali 2019-ag-2303	Formation and characterization of nanosuspensions of <i>Nigella sativa</i> seeds extract for enhanced bioactivities.
47	Aqsa Azhar 2019-ag-2345	Formation and characterization of nanosuspension of <i>Bauhinia variegata</i> buds extract for enhanced bioactivities
48	Yousra Ibrahim 2019-ag-2343	Formation and characterization of nanosuspension of <i>Citrullus colocynthis</i> seeds extract for enhanced bioactivities
49	Arooj Fatima 2019-ag-2355	Formation and characterization of nanosuspensions of <i>Holarrhena antidysenterica</i> seeds extract for enhanced bioactivities
50	Maria Tahir 2017-ag-0510	Formation and characterization of nanosuspension of <i>Tinospora cordifolia</i> stem extract for enhanced bioactivities
51	Memoona Ashraf 2017-ag-0503	Formation and characterization of nanosuspension of <i>Gymnema sylvestre</i> leave extract for enhanced bioactivities
52	Pakiza Sahar 2019-ag-2338	Formation and characterization of nanosuspension of <i>Mentha arvensis</i> leaves extract for enhanced bioactivities
53	Ruhma Ashraf 2019-ag-2365	Formation and characterization of nanosuspensions of <i>Zingiber officinale</i> rhizome for enhanced bioactivities
54	Zisha Khan 2019-ag-2321	Formation and characterization of nanosuspension of <i>Coriandrum sativum</i> seeds extract for enhanced bioactivities.
55	Arifa Nisar 2019-ag-2324	Formation and characterization of nanosuspension of <i>Ginkgo biloba</i> leaves for enhanced bioactivities
56	Zaitoon Ghani 2019-ag-2342	Formation and characterization of nanosuspension of <i>Pipper nigrum</i> seeds extract for enhanced bioactivities

2022

Sr. no.	Student name/Reg.no.	Research Title
57	Maryam Saeed 2020-ag-1287	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Amaranthus viridis</i> and <i>Chenopodium album</i>
58	Muhammad Ahmad Raza 2020-ag-1274	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Azadirachta indica</i> and <i>Melia azedarach</i>
59	Laiba Tabassam 2020-ag-1268	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Phaseolus vulgaris</i> and <i>Glycine max</i>
61	Sharifan Mahnoor 2020-ag-1291	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Xanthium strumarium</i> and <i>Tagetes erecta</i>
62	Rabbia Shafqat 2020-ag-1264	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Achyranthes aspera</i> and <i>Aerva javanica</i>
63	Maryam Zia 2020-ag-1307	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Convolvulus arvensis</i> and <i>Cuscuta reflexa</i>
64	Tayyeba Tabassum 2020-ag-1357	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Euphorbia hirta</i> and <i>Ricinus communis</i>
65	Anas Bilal 2020-ag-1369	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Cuminum cyminum</i> and <i>Anethum graveolens</i>
66	Muniba Karamat 2020-ag-1358	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Trachyspermum ammi</i> and <i>Feoniculum vulgare</i>
67	Nadia Nazir 2020-ag-1343	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Terminalia arjuna</i> and <i>Terminalia chebula</i>
68	Kiran Shehzadi 2020-ag-1348	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Cynodon dactylon</i> and <i>Arundo donax</i>
69	Mahnoor Akram 2020-ag-1354	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Trigonella foenum-graecum</i> and <i>Vigna radiate</i>
70	Ibtisam Elahi 2020-ag-1331	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Alstonia scholaris</i> and <i>Plumeria rubra</i>
71	Maria 2020-ag-1327	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Ficus benghalensis</i> and <i>Ficus carica</i>

72	Faiza Batool 2020-ag-1326	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Citrus limettarisso</i> , <i>Citrus nobilis</i> X <i>Citrus deliciosa</i> and <i>Citrus maxima</i>
73	Shazma Malik 2020-ag-1317	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Acacia modesta</i> and <i>Albizia lebbeck</i>
74	Urwa Amjad 2020-ag-1363	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Morus alba</i> and <i>Morus nigra</i>
75	Ajwa 2018-ag-570	Structural characterization, antioxidant, antidiabetic and antimicrobial activities of <i>Ocimum basilicum</i> and <i>Ocimum tenuiflorum</i>

2023

Sr.no.	Name, Reg.no.	Research Title
76	Azka Rafique, 2020-ag-10041	Probing the bioactivities of <i>Foeniculum vulgare</i> Mill.var. <i>Ducle</i> (sweet fennel) and <i>Foeniculum vulgare</i> Mill.var. <i>vulgare</i> (bitter fennel) by microwave assisted extraction approach
77	Ayesha Sajid, 2021-ag-1889	Exploring the bioactivities and photochemistry of <i>Phoenix dactylifera</i> L. (Aseel and Zahidi)
78	Zainab Roohi, 2021-ag-1915	Microwave assisted extraction approach to explore chemical profile and bioactivities of <i>Ficus carica</i> and <i>Ficus racemosa</i>
79	Mishal Asif, 2021-ag-1831	Probing the biological, therapeutical and toxicological properties of two varieties of <i>Capsicum annum</i> (red and green chilies)
80	Rimsha Awan, 2021-ag-1803	A Comparative study of the antioxidant, antidiabetic, antimicrobial and cytotoxic properties of <i>Allium sativum</i> L. (Desi and China garlic)
81	Haiqa Saleem, 2021-ag-1826	Phytochemistry and comparative assessment of cytotoxic, antioxidant, antidiabetic and antimicrobial potential of <i>Jasminum sambac</i> and <i>Jasminum grandiflorum</i>
82	Hifza Ali, 2021-ag-1914	A Comparative study of the chemical composition, antioxidant, antidiabetic and antimicrobial and cytotoxic properties of <i>Morus alba</i> and <i>Morus nigra</i> bark
83	Muhammad Asim, 2021-ag-1782	Phytochemical profile and comparative investigation of bioactivities of <i>Azadirachta indica</i> and <i>Melia azedarach</i> bark
84	Komal Tariq, 2021-ag-1784	Evaluation of antidiabetic, antioxidant, antimicrobial and cytotoxic potential of two varieties (Gacha and Kala Kulu) of <i>Malus domestica</i>
85	Faria Shahid, 2021-ag-1893	<i>Spinacia oleracea</i> and <i>Basella rubra</i> chemical characterization and comparative assessment of biological activities in leaves extract
86	Atiya Imran, 2021-ag-1854	Phytochemical profile and comparative investigation of bioactivities of <i>Citrus reticulate</i> and <i>Citrus sinensis</i> peel extracts
87	Syeda Momina Gilani, 2021-ag-1812	Chemical finger printing and comparative assessment of bioactivities in leaf extracts of <i>Cassia fistula</i> Linn and <i>Cassia glauca</i> Lam
88	Sittara Aslam, 2021-ag-1868	Phytochemistry, in vitro cytotoxicity, antioxidant, antidiabetic and antimicrobial activities of <i>Ficus religiosa</i> Linn and <i>Ficus benghalensis</i> Linn
89	Atiya Batool, 2018-ag-594	Antidiabetic, antimicrobial, antioxidant and cytotoxic effects of <i>Solanum nigrum</i> (Makoi) and <i>Solanum melongina</i> (Brinjal) leaves
90	Maria Yaseen, 2021-ag-1804	Microwave assisted extraction approach to explore chemical profile and bioactivities of <i>Terminalia arjuna</i> and <i>Terminalia bellerica</i> leaves
91	Iqra Arshad, 2021-ag-1906	<i>Piper nigrum</i> and <i>Piper longum</i> chemical characterization and comparative assessment of biological activities in seed extract
92	Saira Tabasum, 2021-ag-1886	Comparative assessment of biological activities of <i>Sesamum indicum</i> and <i>Sesamum radiatum</i> extracts and chemical characterization
93	Syeda Sabeen Kazmi, 2021-ag-2791	Chemical characterization and bioactivities of <i>Ziziphus jujuba</i> L. and <i>Ziziphus mauritiana</i> Lam leaves
94	Ifra Latif Khan, 2021-ag-1799	Microwave assisted extraction approach to evaluate antioxidant, antidiabetic, cytotoxic and antimicrobial properties of two varieties of

		<i>Phaseolus vulgaris</i> Linn (red and white kidney beans)
95	Tehreem Fatima, 2021-ag-1899	Targeted mutagenesis and precise genome editing in IPK gene using crisper/cas system in ze m maize to lower phytic acid contents in seeds
96	Saira Kamal, 2021-ag-1920)	Crisper/cas mediated IPK gene editing in maize to reduce phytic acid in content
97	Noor ul Ain, 2022-ag-1946	Structural Characterization And Pharmacological Potential Of <i>Leptadenia pyrotechnica</i> Extract And It's Nanoparticles
98	Nuzhat Ejaz, 2022-ag-1957	<i>In-Vitro</i> Assessment Of Therapeutic Effects Of <i>Achranthes aspera</i> Extracts And Its Nanoparticles
99	Hafsa Hussnain, 2022-ag-1948	Evaluation Of Anti-Eryptotic Activity Of Apocynin And Quercetin In Ckd Patient's Erythrocytes
100	Esha Khlid, 2022-ag-1947	Comparative Anaylsis Of Anti-Eryptotic Activity Of Curcumin And Allicin In Diabetic Patients Erythrocytes
101	Areej Fatima, 2022-ag-1989	Characterization Of Polyherbal Extract Of <i>Euphorbia hirta</i> , <i>Achyranthes aspera</i> , <i>Silybum marianum</i> And <i>Leptadenia pyrotechica</i> And Nanoparticles
102	Aniqa Tariq, 2022-ag-2006	Probing The Toxicological, Biological And Therapeutical Properties Of <i>Syzygium cumini</i> Extract And Its Nanoparticles
103	Ghinaa Siddiq, 2022-ag-2014	Assessment Of Therapeutic Effects Of <i>Euphorbia hirta</i> Plant Extract And Its Nanoparticles
104	Musfirah Gull, 2022-ag-2015	Synthesis Of Nanoparticles From <i>Silybum marianum</i> Extract And It's Biological Evaluation
105	Khadija Farhat, 2022-ag-1970	Phytochemistry And Assessment Of Bioactivities Of <i>Gymnema sylvestre</i> Extract And Its Nanoparticles
106	Abeer Khizran, 2022-ag-2023	Development Of Herbal Extract And Nanoparticles Of <i>Moringa oleifera</i> For Assessment Of <i>In-Vitro</i> Bioactivities
107	M Ameer Qarib Naqvi, 2022-ag-2043	Formation, Structural And Functional Charecterization Of Polyherbal Extracts And Their Nanoparticles
108	Kinza Maqsood, 2022-ag-2024	Structural Characterization And <i>In-Vitro</i> Bioactivities Of Herbal Extract And Nanoparticles Of <i>Caralluma tuberculata</i>
109	Areej Farman, 2022-ag-2028	Formation And Structural Characterization Of <i>Citrullus colocynthis</i> And Its Nanoparticles Along With <i>In-Vitro</i> Biological Studies
110	Javaria Ashfaq, 2022-ag-2033	Development Of Polyherbal Extract And Nanoparticles Of <i>Moringa oleifera</i> , <i>Citrullus colocynthis</i> , <i>Caralluma tuberculata</i> And <i>Momordica charantia</i> For Investigation Of <i>In-Vitro</i> Bioactivities
111	Maham Ashfaq 2022-ag-2034	Development Of Herbal Extract And Nanoparticles Of <i>Momordica charantia</i> For Assessment Of <i>In-Vitro</i> Bioactivities
112	Sadia Sarwar, 2022-ag-2067	Functional Characterization Of <i>Origanum vulgare</i> Leaves Extract And Its Nanoparticles
113	Sundas Ejaz, 2022-ag-1983	Microwave Assist Extraction And Nanoparticles Formation Approach To Explore Chemical Profile And Bioactivities Of <i>Aloe barbadensis miller</i>

Students Produced (As Major Supervisor/advisor) - M. Sc. Biochemistry

2011		
Sr. no.	Student name	Research Title
1	Marina Shahid (2009-ag-1362)	Proximate Composition and mineral contents of <i>Zingiber officinale</i> and <i>Alpinia allughas</i> (<i>Zingiberaceae</i>) Rhizomes
2	Saima Hameed (2009-ag-1282)	Evaluation of Clinical Patterns of Contact Dermatitis due to <i>Parthenium hysterophorus</i>
3	Muaz Ahmad (2009-ag-1244)	Chemical Composition, Biochemical and Antidiabetic Activity of <i>Aloe vera</i> (<i>Aloe barbadensis</i> Miller)

2012		
4	Asad Ali (2010-ag-1274)	<i>In vivo and in vitro</i> antidiabetic evaluation of <i>Onosma hispidum</i>
5	Fatima Ikram (2010-ag-797)	<i>In vivo and in vitro</i> antidiabetic evaluation of <i>Nigella sativa</i>
2013		
6	Sadaf Tahira (2010-ag-1524)	<i>In vitro and in vivo</i> antidiabetic evaluation of <i>Momordica charantia</i>
7	Naulaiba Rehman (2011-ag-1319)	Alpha amylase inhibitory activities of <i>Allium cepa</i> L. and <i>Allium sativum</i> L.
8	Sadaf Khalid (2011-ag-1308)	Alpha amylase inhibitory activity of <i>Zea mays</i> L. and <i>Hordium vulgare</i> L.
9	Javeria Hafeez (2011-ag-1237)	Alpha amylase inhibitory activity of <i>Oryza sativa</i> L. And <i>Triticum sativum</i> L.
2014		
10	Zainab Rafique (2012-ag-1095)	Trace elements status in diabetic patients with complications
2015		
11	Shabana Kosar (2013-ag-87)	<i>In vitro</i> antioxidant and phytochemical activities of <i>Averrhoa carambola</i>
12	Syedeh Saemeh Bukhari (2013-ag-1762)	Biological activities of <i>Cinnamomum zeylanicum</i>
13	Muzna Fatima (2013-ag-1557)	Biological activities of <i>Cuminum cyminum</i> Linn
14	Saba Rashid (2013-ag-1450)	Biological activities of <i>Piper nigrum</i>
15	Ayesha Habib (2013-ag-826)	Biological activities of <i>Amomum subulatum</i>
16	Iqra Saeed (2013-ag-1449)	Biological activities of <i>Coriandrum sativum</i> L.
17	Ifrah Ahmed (2013-ag-1549)	Biological activities of <i>Elettaria cardamomum</i>
2016		
18	Wajeeha Ghazal (2014-ag-1271)	Biological activities of <i>Momordica charantia</i> and <i>Syzygium cumini</i>
19	Zainab Akhtar (2014-ag-8153)	Biological activities of <i>Parthenium hysterophorus</i>
20	Sabahat Riaz (2014-ag-8103)	Biological activities of <i>Allium sativum</i> and <i>Zingiber officinale</i>
21	Taiba Nasir (2015-ag-251)	Proteins: Intense sweeteners of plant origin
22	Hira Manzoor (2015-ag-252)	Terpenoids: Intense sweeteners of plant origin
23	Tahreem Khalid (2015-ag-1503)	Flavonoids: Intense sweeteners of plant origin
24	Khadija Hassan (2015-ag-1773)	Coumarin derivatives: Intense sweeteners of plant origin
25	Zirwa Anwar (2015-ag-2262)	Steroidal saponins: Intense sweeteners of plant origin
2020		
26	Ajwa (2018-ag-570)	Scabies
27	Iqra Nawaz (2018-ag-576)	Acne Vulgaris
28	Maria Bano (2018-ag-588)	Contact Dermatitis
29	Atiya Batool (2018-ag-594)	Pediatric Alopecia Areata
30	Maheen Arshad (2018-ag-605)	Viral Warts
31	WardaArshad (2018-ag-4570)	Psoriasis

7. Publications

A. Research Articles

1. **Hussain, F.**, M. Ali, M. Yaqub, F. Nazneen and H. Afzal. 1996. Occupational Hazards of Heavy metals (Cd, Cr, Cu, Ni, Pb, Zn) in industrial area of Faisalabad. The Professional. 3: 79-82.

2. Rashid, S., H. Afzal, M. Yaqub, M. Ali and **F. Hussain**. 1996. Evaluation of some of Heavy metals (Ni, Pb, Cu, Cd, Zn and Cr) from drinking water of Faisalabad city. *The Professional*. 3: 317-323.
3. **Hussain, F**, M.A. Sheikh, M. Arif, A. Arshad and A. Jamil. 2008. Non-enzymatic glycation in diabetic complications. *Saudi Med J*. 29(2): 303-304. (**IF: 1.484**)
4. **Hussain, F.**, M.A. Sheikh, M. Arif, A. Jamil and H. Nawaz. 2008. Hepatic Enzymes in type 2 diabetes. *Asian J Chem*. 20; 6121: 6124. (**IF: 0.355**)
5. **Hussain, F**, M. Arif and M. A. Sheikh. 2009. Skin infections among type II diabetic patients in Faisalabad region, Pakistan. *Iranian J Dermatol*. 12(2): 47-51.
6. **Hussain, F**, M. Arif, M. A. Sheikh, H. Nawaz and A. Jamil. 2009. Trace elements status in type 2 diabetes. *Bangladesh J Med Sci*. 8(3): 52-56. (master journal list web of science)
7. **Hussain, F.**, M.A. Sheikh, A. Jamil and H. Nawaz. 2010. Advanced glycation end-products and foot ulceration in type 2 diabetic patients: a case control study. *Int J Agri Biol*. 12: 91-95. (**IF: 0.758**)
8. **Hussain, F.**, M. Arif and M. Ahmad. 2010. Skin Care Knowledge, Attitude and Practices among Pakistani Diabetic Patients. *Egyptian Dermatology Online Journal* 6 (1): 5.
9. **Hussain, F.**, M.A. Sheikh, M. A. Maan, H. Nawaz and A. Jamil. 2010. Plasma protein glycation in diabetic nephropathy. *Pak J Biochem Mol Biol*. 43(2): 85-89.
10. Maan, M.A., **F. Hussain**, J. Iqbal and S. J. Akhtar. 2011. Sexually Transmitted Infections in Pakistan. *Annals Saudi Med*. 31(3): 263-269. (**IF: 1.526**)
11. **Hussain, F.**, M. Arif and M.A. Sheikh. 2011. Prevalence of Diabetic Retinopathy in Faisalabad, Pakistan: A Population Based Study. *Turkish J Med Sci*. 41: 735-742. (**IF: 0.973**)
12. **Hussain, F.**, M.A. Sheikh, M.A. Maan and A. Jamil, 2012. Advanced glycation endproducts (AGEs) in diabetic patients with systemic lupus erythematosus. *Int J Agric Biol.*, 14: 440–444. (**IF: 0.758**)
13. Zafar, H., M. A. Sheikh, **F. Hussain** and M. A. Maan. 2012. Inhibition of protein glycation and advanced glycation end products by ascorbic acid. *Afr J Biotechnol*. 11(51): 11309-11314.

14. Shahid, M and **F. Hussain**. 2012. Chemical composition and mineral contents of *Zingiber officinale* and *Alpinia allughas* (Zingiberaceae) rhizomes. Int J Chem Biochem Sci. 2: 101-104
15. Abdul Sattar, N., **F. Hussain**, T. Iqbal and M. A. Sheikh. 2012. Determination of *in vitro* antidiabetic effects of *Zingiber officinale* Roscoe. Braz J Pharm Sci. 48(4): 601-607. (IF: 1.321)
16. Ahmed, M and **F. Hussain**. 2013. Chemical composition and biochemical activity of *Aloe vera* (*Aloe barbadensis* Miller) leaves. Int J Chem Biochem Sci. 3: 29-33.
17. Sattar, N.A., **F. Hussain** and T. Iqbal. 2013. Antioxidant activities of *Z. officinale* Roscoe and *A. allughas* Roscoe (Zingiberaceae) Rhizomes. Bangladesh J Sci Ind Res. 48(2): 115-118. (master journal list web of science)
18. Maan, MA and **F. Hussain**. 2013. Prevalence of diabetic dermopathy in type 2 diabetes mellitus patients. Ann Punjab Med Coll, 7(1): 73-76. (HEC recognized, Y category J)
19. Zafar, H and **F. Hussain**, S. Zafar, R. Yasmin. 2013. Glycation inhibition by *Nigella sativa* (Linn.) – An *in vitro* model. Asian J Agri Biol. 1(4): 187-189. (master journal list web of science)
20. Rafiq, N., S. Rafiq, T. Iqbal, M. Shahid, A. Gaffar, **F. Hussain**. 2013. Elevated genetic deletion of GSTT1 in Pakistani population. Jokull. 63 (12); Dec 2013. (IF: 0.833)
21. Maan, AM, **F. Hussain**, M. Jamil. 2014. Prevalence and risk factors of HIV in Faisalabad, Pakistan – A retrospective study. Pak J Med Sci. 30: 32-35. (IF: 1.088)
22. Younas, J and **F. Hussain**. 2014. *In vitro* antidiabetic evaluation of *Allium sativum*. Int J Chem Biochem Sci. 5: 22-25.
23. Ikram, F. and **F. Hussain**. 2014. Antidiabetic efficacy of *Nigella sativa* Linn. in diabetic models. Int Med J Malaysia, 13: 13-18. (master journal list web of science)
24. Tahira, S. and **F. Hussain**. 2014. Antidiabetic evaluation of *Momordica charantia* L. fruit extracts. West Ind Med J. 63(4): 298-303. (IF: 0.186)

25. Afzal, M., M. Shahid, M. Iqbal and **F. Hussain**. 2014. Influence of *Aspergillus niger* stress on antimicrobial and biochemical profiling of *Cichorium intybus*. Oxidation Comm. 37(1): 269-278. (IF: 0.489)
26. Maan, M.A., **F. Hussain** and M. Jamil. 2014. Epidemiology of hepatitis C viral infection in Faisalabad, Pakistan- A retrospective study (2010-2012). Afr Health Sci. 14 (4): 810-815. (IF: 0.927)
27. Ali, A., **F. Hussain** and M. Shahid. 2015. Investigation of the wound healing potential of *Onosma hispidum* root extract in rabbit models. Prog Nutr. 17 (3): 245-249. (IF: 0.538)
28. **Hussain, F.**, M. A. Mann and M. Shahid. 2015. Awareness related survey of parthenium dermatitis in local population visiting district headquarter hospital, Faisalabad, Pakistan. Int J Chem Biochem Sci. 7: 23-28.
29. **Hussain, F.**, M. Shahid, K. Javed. 2015. Antioxidant, antiglycation and alpha Amylase inhibitory activities of *Cassia absus* seeds. Curr Sci Perspect. 2(1): 5-9.
30. Saddique, H., **F. Hussain** and M. Shahid. 2015. Some biological perspectives of *Allium sativum*: A Review. Int J Chem Biochem Sci. 8: 35-39.
31. Noreen, S., M. Asgher, **F. Hussain** and A. Iqbal. 2016. Performance improvement of Ca-Alginate beads cross-linked Laccase from *Trametes versicolor* IBL-04. BioResources, 11 (1): 558-572. (IF: 1.747)
32. Aslam, S., M. Asgher, **F. Hussain** and N.A.Khan. 2016. Exploration of optimum conditions for enhanced Laccase enzyme production by *Pleurotus nebrodensis* WC 850 through response surface methodology. J Animal Plant Sci, 26(3): 794-804. (IF: 0.570)
33. **Hussain, F.**, Z. Khan. 2016. Antidiabetic efficacy of various organic fractions of *Mangifera indica* leaves. J Biochem Biotech Biomater, 1(1): 69-75.
34. Kanwal, N., **F. Hussain**, N. Ahmed, A. Jamil. 2016. Antioxidant, thrombolytic, and mutagenic potential of crude protein extracts of seeds and young leaves of *Solanum lycopersicum*. Oxidation Comm. 39(3-I): 2291-2300. (IF: 0.489)

35. Sattar, N.A., **F. Hussain**, A. Jamil, A. Sarfraz. 2017. Evaluation of biochemical parameters among type 2 diabetes mellitus patients in Pakistan. *Oxidation Comm.* 40 (1-1): 220-225. **(IF: 0.489)**
36. **Hussain, F.**, Z. Rafique, S. A. Maan. 2017. Glyco-oxidation products and selected mineral status in type 2 diabetes mellitus. *Oxidation Comm.* 40 (1-II): 540-546. **(IF: 0.489)**
37. Murtaza, S., A. Sameen, N. Huma and **F. Hussain**. 2017. Influence of hydrocolloid gums on textural, functional and sensory properties of low fat cheddar cheese from buffalo milk. *Pak J Zool.* 49(1): 27-34. **(IF: 0.831)**
38. **Hussain, F.**, A. Ali and M. Shahid. 2017. Antidiabetic potential of *Onosma hispidum* roots. *West Ind Med J.* DOI: 10.7727/wimj.2016.436 **(IF: 0.206)**
39. Ahmed, Z., M.A. Bajwa, **F. Hussain** and A. Randhawa. 2017. A novel approach to delignify lignocellulosic materials using a mix ligninolytic consortium. *BioResources.* 11(4): 10511-10527. **(IF: 1.747)**
40. Mahmood, A., R. A. Sarfraz and **F. Hussain**. 2017. *In vitro* antidiabetic and antioxidant activities of indigenous plants of Punjab, Pakistan. *Oxidation Comm.* 40(2): 638-647. **(IF: 0.489)**
41. Shaheen, R., M. Asgher, **F. Hussain** and H.N. Bhatti. 2017. Immobilized Lignin Peroxidase from *Ganoderma lucidum* IBL-05 with improved dye decolorization and cytotoxicity reduction properties. *Int J Biol Macromol.* 103:57-64. **(IF: 8.025)**
42. H Ur Rashid, **F. Hussain**, K. Masood. 2017. Computer assisted detection, prognosis and management of Diabetic Retinopathy. *Int J Chem Biochem Sci.* 11: 1-4.
43. Anwar, Z., **F. Hussain**. 2017. Steroidal Saponins: An overview of medicinal uses. *Int J Chem Biochem Sci.* 11: 20-24.
44. **Hussain, F.**, H. Zafar and M. Shahid. 2017. Medicinal benefits of *Parthenium hysterophorus* L. leaves extracts. *J Basic Appl Res Int.* 23 (4): 179-186.
45. Jamil, F., M. Asgher, **F. Hussain** and H. N. Bhatti. 2018. Biodegradation of synthetic textile dyes by chitosan beads crosslinked laccase from *Pleurotus ostreatus* IBL-02. *J Animal Plant Sci.* 28(1): 231-243. **(IF: 0.570)**
46. **Hussain, F.**, S. Manzoor. 2017. Potential Pharmacological Benefits of Ginger (*Zingiber officinale*) – A Review. *Int J Chem Biochem Sci.* 12: 68-74.

47. Awan, K.A., M.S.Butt, M.K.Sharif and **F.Hussain**. 2018. Compositional profiling of selected Pakistani date cultivars. *Pak J Agri Sci*. 55(3): 575-581. **(IF: 1.054)**
48. H Ur Rashid, **F. Hussain** and K. Masood. 2018. Big data and precision medicine. *Lahore Garrison Uni Res J Comp Sci Infor Technol*. 2(1): 1-8. (HEC recognized, Y category J)
49. Bokhari, S.S., **F. Hussain** and M. Shahid. 2018. Bioactive efficacies of *Syzygium cumini* L. fruit extracts. *Sylwan* **(IF: 0.481)**
50. Subhani, Z., M. Shahid, **F. Hussain** and J. A. Khan. 2018. Efficacy of *Chlorella pyrenoidosa* to ameliorate the hepatotoxic effects of aflatoxin B1 in broiler chickens. *Pak Vet J*. 38(1): 13-18. **(IF: 1.803)**
51. Ayesha Tahir, **F. Hussain**, N. Ahmed, A. Jamil. 2018. Assessing universality of DNA barcoding in geographically isolated selected desert medicinal species of Fabaceae and Poaceae. *PeerJ*. 6:e4499 **(IF: 3.061)**
52. H Ur Rashid, **F. Hussain** and K. Masood. 2018. Application of big data in health care. *Int J Chem Biochem Sci* 13:1-5.
53. Zulfiqar S., **F. Hussain**, A. Jamil and N. Ahmed. 2018. Association of RAGE gene polymorphism with Type2 diabetes mellitus in local population. *Pak J Med Sci*. 34(1):226-229. **(IF: 1.088)**
54. Bashir, F., M. Asgher, **F. Hussain**, and M.A. Randhawa. 2018. Development and characterization of cross-linked enzyme aggregates of thermotolerant alkaline protease from *Bacillus licheniformis*. *Int J Biol Macromol*. 113 (2018): 944-951. **(IF: 8.025)**
55. **Hussain, F.**, A. Irshad and M. Shahid. 2018. Study of selected therapeutic potentials of *Momordica charantia* fruit. *J Biol Regul Homeosts Agents*, 32(4):859-862 **(IF: 2.843)**
56. **Hussain, F.** and F. Ahmed. 2019. Antioxidant, antidiabetic and antibacterial activities of *Ricinus communis* root extracts. *J Fundamental Appl Sci*. 11(2): 551-662.
57. H Ur Rashid, **F. Hussain**, K. Masood. 2019. Patient privacy – Challenges and opportunities in the age of big data. *Curr Sci Perspect*. 5(1): 1-5.

58. Sattar, N.A., **F. Hussain**. 2019. Association of vitamin D receptor gene *TaqI* variant with type 2 diabetes mellitus in Pakistani population. *Kuwait Med J.* 51(3): 263-268. (IF: 0.113)
59. Sattar, N.A., **F. Hussain**, K. Gillespie, S.U. Sajid, S. Shaheen, N. Shafiq, S. Aleem and S. Aslam. 2019. Role of vitamin D receptor (VDR) genetic polymorphism in onset of type 2 diabetes mellitus: A Review. *J Biosci Biotechnol Discovery*, 4(1):1-9.
60. Sattar, N.A., **F. Hussain**. 2019. Association of Vitamin D receptor gene *BsmI* polymorphism with type 2 diabetes mellitus in Pakistani population. *Afr Health Sci.* 19(2): 2164-2171. (IF: 1.108)
61. **Hussain, F.**, I. Iqbal. 2019. Nutritional and therapeutic potential of *Glycyrrhiza glabra* L. Roots. *Asian J Med Biol Res.* 5 (4), 265-270.
62. Bashir, T., M. Asgher, **F. Hussain**, H.N. Bhatti. 2020. Optimization of process variables for hyper-production of lovastatin from wild type *Aspergillus terreus* and its efficacy studies. *Revista Mexicana De Ingenieria Quimica.* 19 (2):929-939. (IF: 2.148)
63. Sattar, N.A. and **F. Hussain**. 2020. Vitamin D receptor *FokI* polymorphism in a Pakistani population with type 2 diabetes mellitus. *Pak J Pharma Sci.* 33(2): 605-610 (IF: 0.684)
64. Noreen, A., **F. Hussain**, and M. Shahid. 2020. Insights on the antioxidant, antidiabetic, anti-amnesic, cytotoxic, thrombolytic and antibiofilm activities of *Stevia rebaudiana* leaves. *Prog Nutr.* 22(3): e2020027 (IF:0.567)
65. Basit, I., H.U.R. Kayani., **F. Hussain**. 2020. Chronic Disease Modeling - MATLAB Environment. *Inter J Chem Biochem Sci.* 17:112-115.
66. Kayani, H.U.R., A. Qadeer, **F. Hussain**. 2020. Modeling the Dynamics of HIV/AIDs with Computer Simulations. *Inter J Chem Biochem Sci.* 17: 93
67. Mehmood, F., H.U.R. Kayani, **F. Hussain**. 2020. Chronic disease modelling – Python environment. *FUUAST J Biol.* 10(1): 31-38. (HEC recognized Y category)
- Umm-e-Ammara Warraich, **F. Hussain**, H.U.R Kayani. 2020. Aging - Oxidative stress, Antioxidants and Computational Modeling. *Heliyon.* 31;6(5): e04107. doi: 10.1016/j.heliyon.2020.e04107. (Impact Factor: 4.0)

68. **Hussain, F.** and F. Ikram. 2020. Antioxidant and antidiabetic potential of saponin fraction isolated from *Moringa oleifera* leaves. Pak J Sci Indus Res. 63B2: 86-92 (HEC recognized Y category; web of science, indexed j)
69. Javeria Asghar, H.U.R, Kayani, **F. Hussain**. 2020. Data-driven Cancer Modelling and Computer Simulation. Current Sci Perspect. 6(3): 34-42.
70. Marium Hayat, H.U.R. Kayani, **F. Hussain**. 2020. Modeling the Dynamics of Atherosclerosis with Computerized Simulations. Current Sci Perspect. 6(2): 19-23.
71. Maan, M.A., A. Abrar, H. Zahoor, **F. Hussain**, S.J. Akhtar. 2020. Clinical profile of pediatric alopecia areata in Faisalabad city. Annals PMC. 14(3):233-236 (HEC recognized Y category)
72. **F. Hussain**, A. Akram, J. Hafeez, M. Shahid. 2021. Biofunctional characterization of red, black and white ginseng (*Panax ginseng* Meyer) root extracts. Revista Mexicana de Ingeniería Química. 20(1): 173-184 (**IF: 2.148**).
73. Yaqoob, A., H.U.R. Kayani, **F. Hussain**. 2020. Computer Simulation models – Diagnosis, treatment and control measures for tuberculosis. FUUAST J Biol. 10(2): 127-136 (HEC recognized Y category)
74. Fatima, M., H.U.R. Kaynai, **F. Hussain**, H.B.U. Haq. 2021. Integrating dynamics simulation modeling to assess pathophysiology of arthritis. Inter J Sci Technol Res. 10(2): 211-215. (HEC recognized Y category)
75. Sultan, B., H.U. R. Kayani, **F. Hussain**, H.B.U. Haq. 2021. Modeling the dynamics of typhoid fever with computerized simulations. Inter J Sci Technol Res. 10(2): 345-347. (HEC recognized Y category)
76. Kayani, H.U.R., **F. Hussain**, S. Zulfiqar, H. B.U.H. Hashmi, A. A. Malik. 2021. Computer models for malaria infections, diagnosis and transmission analysis. Inter J Sci Technol Res. 10(3): 167-171. (HEC recognized Y category)
77. Maan, M.A., **F. Hussain**, A. Abrar, H. Zahoor, S. J. Akhtar. 2021. Knowledge, beliefs and perceptions among alopecia areata patients -A cross-sectional study in Faisalabad. J Pak Assoc Dermatol. 31(1): 51-57.
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 - 91.** Hussain, F., J. Hafeez, A.S. Khalifa, M. Naeem, T. Ali, E.M. Eed. 2022. *In vitro* and *in vivo* study of inhibitory potentials of α -glucosidase and acetylcholinesterase and biochemical profiling of *M. charantia* in alloxan-induced diabetic rat models. Am J Transl Res. 14(6): 3824-3839. **(IF: 3.940)**
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B. Book Chapters

1. **Hussain, F.**, U.A. Warraich, A. Jamil. 2021. **Springer Book Chapter:** Redox signaling, autophagy and aging. Book series: HEALTHY AGEING AND LONGEVITY. *Series editor:* Suresh Rattan. Title of the volume: REDOX SIGNALING AND BIOMARKERS IN AGING. *Editor for this volume:* Ufuk Çakatay, *Department of Medical Biochemistry, Cerrahpaşa Faculty of Medicine, Istanbul University-Cerrahpaşa, Istanbul, Turkey.* ISBN 978-3-030-84964-1 ISBN 978-3-030-84965-8 (eBook). ISSN 2199-9007 ISSN 2199-9015 (electronic). <https://doi.org/10.1007/978-3-030-84965-8>. Springer, vol. 15. Pp. 117-146.
2. Anjum F, Akram N, Gul Khan S, Akhter N, Shahid M, **Hussain F.** 2023. Microbial Fuel Cell Formulation from Nano-Composites. Book: Gold Nanoparticles and Their Applications in Engineering. IntechOpen; 2023. Available from: <http://dx.doi.org/10.5772/intechopen.108744>
3. Tayyab A, **F. Hussain**, H.U.R. Kayani, M. Naeem, F. Anjum. 2023. Book Chapter: The role of mitochondria and mitophagy in cell senescence”. Book: Advances in Protein Chemistry and Structural Biology, Elsevier Publishing. <https://doi.org/10.1016/bs.apcsb.2023.03.001> (IMPACT FACTOR: 5.447)
4. Muhammad Asim, Saadiya Zia, Haroon Ur Rashid, Abdul Nasir, **Fatma Hussain.** 2024. Book Chapter “Nanotherapeutic Approach for Diabetic Wound Healing: Cross-talk between Redox Molecules”. Elsevier Book Title: Redox signaling in wound healing: theoretical basis and clinical approach. Editors: Mehmet Can Atayik and Ufuk Cakatay. <https://doi.org/10.1016/bs.abger.2024.05.014>.
5. M. Asim, R. Awan, H. Ur Rashid, and **F. Hussain.** 2024. Book Chapter “Oxidative Stress in Type-2 Diabetes Mellitus”. Springer Book Title: Biomarkers of Oxidative Stress Clinical Aspects of Oxidative Stress. Editors: Silvana Andreescu Ralf Henkel Abderrezak Khelfi Editors.

C. Abstract

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5. **Hussain, F.**, M.A. Maan, M. Ahmad. 2010. Diabetic Dermopathy as a Predictor of Diabetic Retinopathy (Abstract). 8th International & 20th National Chemistry Conference. February 15 -17, 2010 organized by The Chemical Society of Pakistan at Quaid-i-Azam University Islamabad.
6. Sattar, N.A., **F. Hussain**, T. Iqbal, M. A. Sheikh. 2011. "Determination of *In Vitro* Antidiabetic Effects of *Zingiber officinale* Rosc. and *Alpinia allughas* Rosc." 10th International and 22nd National Chemistry Conference 2011 being held from November 21-23, 2011 in the Department of Chemistry & Biochemistry, University of Agriculture, Faisalabad
7. **Hussain, F.**, M. Arif, M.A. Sheikh, A. Jamil, H. Nawaz. 2011. "Serum Advanced Glycation Endproducts and Diabetes Complications." 10th International and 22nd National Chemistry Conference 2011 being held from November 21-23, 2011 in the Department of Chemistry & Biochemistry, University of Agriculture, Faisalabad
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9. Rafique, H., **F. Hussain**, M. Asghar and H.N. Bhatti. 2014. Comparative assessment of antidiabetic potentials of *Ocimum basilicum*, *Murraya koenigii* and *Trigonella foenum-graceum*. International Conference on Biochemical and Chemical Sciences (ICBCS-2014) February 24-26, 2014, Department of Chemistry and Biochemistry, University of Agriculture, Faisalabad
10. Sattar, A.N, T. Iqbal, **F. Hussain**. 2014. Urinary excretion of lead after deferoxamine in male volunteers of β thalassemia. International Conference on Biochemical and Chemical Sciences (ICBCS-2014) February 24-26, 2014, Department of Chemistry and Biochemistry, University of Agriculture, Faisalabad
11. Hafeez, J., **F. Hussain**, M. Shahid. 2016. Phytochemical evaluation of *Allium sativum* L. and *Zingiber officinale* L. rhizomes in various organic solvents. International Conference of Biochemistry, Biotechnology and Biomaterials. (ICBBB-2016), February 22 - 24, 2016. Department of Biochemistry, University of Agriculture, Faisalabad
12. Ahmad, M., **F. Hussain**, M. Shahid. 2016. Phytochemical Evaluation of *Momordica charantia* and *Syzygium cumini*. International Conference of Biochemistry, Biotechnology and Biomaterials. (ICBBB-2016), February 22 - 24, 2016. Department of Biochemistry, University of Agriculture, Faisalabad
13. Ahmed, F., **F. Hussain**, M. Shahid. 2016. Anti-oxidant, anti-diabetic, anti-microbial and enzyme inhibitory activities of *Ricinus communis*. International Conference of Biochemistry, Biotechnology and Biomaterials. (ICBBB-2016), February 22 - 24, 2016. Department of Biochemistry, University of Agriculture, Faisalabad.
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 19. Hussain, F and H. Zafar. Biochemical and Therapeutic Effects of *Parthenium hysterophorus* Leaf. Two-Day National Conference on “Recent Advances in Biotechnology” April 26-27, 2017 Department of Biotechnology & Genetic Engineering, Kohat University of Science and Technology (KUST), Kohat, Pakistan
 20. Hussain, F and S.S. Bokhari. Bio-Efficacies of *Syzygium cumini* Fruit. Two-Day National Conference on “Recent Advances in Biotechnology” April 26-27, 2017 Department of Biotechnology & Genetic Engineering, Kohat University of Science and Technology (KUST), Kohat, Pakistan
 21. Hussain, F and S. Manzoor. Pharmacological Potentials of *Z. officinale* Rhizome. Two-Day National Conference on “Recent Advances in Biotechnology” April 26-27, 2017 Department of Biotechnology & Genetic Engineering, Kohat University of Science and Technology (KUST), Kohat, Pakistan

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23. Hussain, F and S. Unab. Exploring medicinal potential of *Smilax china*. L roots. Conference on “Recent Advances in Chemistry-2017” May 13-15, 2017, Department of Chemistry, University of Lahore, Lahore.
24. Hussain, F and I. Iqbal. Therapeutic characterization of *Glycyrrhiza glabra*. L roots. Conference on “Recent Advances in Chemistry-2017” May 13-15, 2017, Department of Chemistry, University of Lahore, Lahore.
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26. F. Hussain, Hafeez, J. “Proteins – Intense sweeteners of plant origin”. First National Conference on Emerging Trends in Bioinformatics and Biosciences held from July 20-22, 2017 at Hazara University Mansehra, KP, Pakistan.
27. N.A.Sattar and Hussain, F. “Vitamin D receptor gene polymorphisms (ApaI, TaqI) in type 2 diabetes mellitus” First National Conference on Emerging Trends in Bioinformatics and Biosciences held from July 20-22, 2017 at Hazara University Mansehra, KP, Pakistan.
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30. Hafeez, J., F. Hussain. *In vitro* antibacterial potential of selected medicinal plants against some gram negative and gram positive bacteria. 2nd International

- Conference of Biochemistry, Biotechnology and Biomaterials (ICBBB-2018), December 09-11, 2018 held at Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad.
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 33. Hussain, F. and I.Iqbal. Bioactive and therapeutic potential of *Glycyrrhiza glabra* L. roots. 2nd International Conference of Biochemistry, Biotechnology and Biomaterials (ICBBB-2018), December 09-11, 2018 held at Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad.
 34. Hussain, F, H. U. R. Kayani, M. Shahid. 2020. Atherosclerosis - Role of Computer Simulation Modelling. 3rd International Conference Future-Med. February 12-13, 2020 held at Faculty of Medical and Health Sciences, University of Sargodha.
 35. Hussain, F, H.U. R Kayani. 2020. Application of Big Data Analytics and Computational Models during COVID-19 Pandemic. 1st International Conference on Emerging Trends in Inter-disciplinary Research in Biomedical Sciences held on 10-11 December, 2020 at University of Okara, Okara.
 36. Hussain, F., M.Shahid, J. Hafeez. 2021. Biofunctional characterization of the poly herbal formulation. International Online Conference “Dynamic Strategies in Plant Sciences for Crop Sustainability and Food Security” 26-27 May 2021 Organized by Department of Botany, Government College Women University, Faisalabad, Pakistan.
 37. **Hussain, F.**, M.Shahid, J. Hafeez. 2021. Antihyperglycemic, hepatoprotective, and renoprotective efficacies of a polyherbal formulation in alloxan-induced diabetic rats. 1st International Hybrid Mode Conference on Emerging Innovative Research

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38. Muhammad Ghous, **Fatma Hussain**, Muhammad Shahid. Biological activities of *Stevia rebaudiana* leaves in various organic solvents. 1st International Conference (Online) Trends and Research in Chemistry (TRIC-2022). January 18-19, 2022. Department of Chemistry, Division of Science and Technology, University of Education, Lahore. (Abstract book pages: 206).
 39. Memoona Ashraf, **Fatma Hussain***. Antioxidant, antidiabetic, antimicrobial, antihemolytic activities of gymnema sylvestre leaves extracts and chemical characterization – a nanotechnology approach. International Conference on Innovation in Chemistry and Physics (ICP-2022) Organized by University of Education, Faisalabad Campus March 14-15, 2022. (Abstract book pages: 53-54).
 40. Iram Battol, **Fatma Hussain***. Antioxidant, Antidiabetic, Antimicrobial, Antihemolytic Activities of *Terminalia chebula* Fruit Extracts - A Nanotechnology Approach. International Conference on Chemical Sciences: A Multidisciplinary Approach. (ICCS-MA) – 2022, 29-31 March 2022. Institute of Chemistry. Shah Abdul Latif University, Khairpur, Sindh. (Abstract book pages: 49).
 41. **Fatma Hussain***, Yousra Ibrahim. Comparative Analysis of Antioxidant, Antidiabetic, Antimicrobial Bioefficacies - Citrullus Colocynthis Seed Extract and Green Nanosuspension. 1st One-Day National Conference on Biology May 19, 2022 organized by Department of Biotechnology and Genetic Engineering, Kohat University of Science & Technology Kohat -26000, Pakistan. (Abstract book page: 16).
 42. **Fatma Hussain**, Javaria Hafeez, Muhammad Shahid. Functional Characterization of a Polyherbal Formulation. 1st One-Day National Conference on Biology May 19, 2022 organized by Department of Biotechnology and Genetic Engineering, Kohat University of Science & Technology Kohat -26000, Pakistan. (Abstract book page: 26).
 43. Ibtisam Elahi, **Fatma Hussain**. Structural Characterization, Antioxidant, Antidiabetic and Antimicrobial Activities of *Alstonia scholaris* Linn and *Plumeria rubra* Linn. International Conference on Food & Applied Sciences (ICFAS-23) Dir-Kumrat. Shaheed Benazir Bhutto University, Sheringal, Dir, KPK. 3-5 August, 2023. (Abstract book page: 227).
 44. M. Tjammal Rehman, A. Saeed, M. Shahid, **F. Hussain**, B. Akhtar, A. Rasool. Characterization of Biofunctional Components and Assessment of Biological Activities of *Bunium persicum* seed. Conference on Food & Applied Sciences (ICFAS-23) Dir- Kumrat. Shaheed Benazir Bhutto University, Sheringal, Dir, KPK. 3-5 August, 2023. (Abstract book page: 180).

45. M. T. Rehman, M. Shahid, **Fatma Hussain**, Bushra Akhtar, Arslan Rasool. Biofilm Inhibition of Optimized Natural Product on Nasopharyngeal Consortium from Human Volunteers. International Conference on Life Sciences (ICLS-23) May 11-12, 2023 Gomal University, Dera Ismail Khan, Pakistan (Abstract book page: 70).
46. **Muhammad Tjammal Rehman**, Muhammad Shahid, Fatma Hussain, Bushra Akhtar, Arslan Rasool. Development of Polyherbal Product to Mitigate Biofilm Formation by Bacteria. II OIC Youth Scientific Congress 26-29 November, 2023 Kazan, Republic of Tatarstan (Abstract book page: 57-59).
47. Fatma Hussain. 2024. Drug-Induced Oxidative Stress. International Symposium on Drug Discovery and Development (ISDDD) Department of Biochemistry, University of Agriculture, Faisalabad, 1-2 March, 2024.
48. Muniba Karamat, Abeer Khizran, Kinza Maqsood, Fatma Hussain. 2024. Bioanalytical Characterization Of *Foeniculum Vulgare*. International Symposium on Drug Discovery and Development (ISDDD) Department of Biochemistry, University of Agriculture, Faisalabad, 1-2 March, 2024.
49. Muniba Karamat, Javaria Ashfaq, Maham Ashfaq, Areej Fatima, Fatma Hussain. 2024. *Trachyspermum Ammi* – Biofunctional Characterization. International Symposium on Drug Discovery and Development (ISDDD) Department of Biochemistry, University of Agriculture, Faisalabad, 1-2 March, 2024.
50. Sundas Ejaz, Aniq Tariq, Khadija Farhat, Iqra Saleem, Muhammad Ameer Qarib Naqvi, Sadia Sarwar, Fatma Hussain. 2024. Promising Natural Products In New Drug Design, Development And Therapy For Skin Disorders: An Overview Of Scientific Evidence And Understanding Their Mechanism Of Action. International Symposium on Drug Discovery and Development (ISDDD) Department of Biochemistry, University of Agriculture, Faisalabad, 1-2 March, 2024.
51. Ajwa, Musfirah Gull, Ghinaa Siddiqi, Noor ul ain, Nuzhat Ejaz, Fatma Hussain. 2024. Structural Characterization, Antioxidant, Antidiabetic And Antimicrobial Activities Of *Ocimum Basilicum* And *Ocimum Tenuiflorum*. International Symposium on Drug Discovery and Development (ISDDD) Department of Biochemistry, University of Agriculture, Faisalabad, 1-2 March, 2024.
52. Areej Fatima, Ajwa, Fatma Hussain. 2024. A Review: Design, Development And Drug Delivery Applications Of Graphene Polymeric Nanocomposites And Bio-Nanocomposites. International Symposium on Drug Discovery and Development

(ISDDD) Department of Biochemistry, University of Agriculture, Faisalabad, 1-2 March, 2024.

- 53.** Aqsa Nawaz, Fatma Hussain. 2024. Evaluating Biochemical Characterization And Bioactivities Of Nanosuspensions Of *Cinnamomum Zeylanicum* Bark Extract Through Nanotechnology. International Symposium on Drug Discovery and Development (ISDDD) Department of Biochemistry, University of Agriculture, Faisalabad, 1-2 March, 2024.

Other Publications: Popular Articles/Book Chapters

S.No	Author(s)	Year	Title	Name of Publisher
1	Fatma Hussain	2010	Diabetic Complications. (Urdu article)	Zarai Digest. Jan-March, 45 (1): 115-117.UAF
2	Saba Zulfiqar, Fatma Hussain	2020	Association of RAGE gene and type 2 diabetes mellitus in local population(Urdu article)	Zarai Digest. Oct. Dec., :70
3	Fatma Hussain, Tayyab Ali	2022	ترشاوہ پھلوں کا استعمال ذیابیطس کے مریضوں کے لیے مفید ہے	Zarai Digest April – June 2022, pages: 69-70
4	Fatma Hussain, Tayyab Ali	2022	سرسوں – موسم سرما کی سوغات	Zarai Digest October – December 2022, pages: 48

8. Member - Ph.D Supervisory Committees

A. AS SECOND MEMBER:

Sr. no.	Student name/ registration #	Supervisory Committee	Research Title	Status
1	Sadia Aslam, (2006-ag-198)	Prof. Dr. M. Asghar Dr. Fatma Hussain Dr. Nasir Ahmad Khan	Potential of different strains of <i>Pleurotus</i> for Laccase enzyme production	Ph.D completed 2016
2	Sadia Noreen, (2005-ag-254)	Prof. Dr. M. Asgher Dr. Fatma Hussain Dr. Ahsan Iqbal	Comparison of different immobilization techniques for thermos stabilization of laccase enzyme from <i>Trametes versicolor</i> IBL-04	Ph.D completed 2016
3	Nazia Kanwal (2004-ag-293)	Prof. Dr. Amer Jamil Dr. Fatma Hussain Dr. Nisar Ahmed	Comparative peptidomic profiling of cationic peptides from <i>Solanum lycopersicum</i> under saline stress	Ph.D completed 2016
4	Ayesha Tahir (2007-ag-587)	Prof. Dr. Amer Jamil Dr. Fatma Hussain Dr. Nisar Ahmed	DNA barcoding and phylogenetic analysis of selected indigenous medicinal plants	Ph.D completed
5	Farina Jamil (2005-ag-243)	Prof. Dr. M. Asgher Dr. Fatma Hussain Dr. Haq Nawaz Bhatti	Development of immobilized laccase from <i>Pleurotus ostreatus</i> IBL-02 for industrial	Ph.D completed

			and environmental applications	
6	Raheela Shaheen (2006-ag-375)	Prof. Dr. M. Asgher Dr. Fatma Hussain Dr. Haq Nawaz Bhatti	Hyperactivation and thermostability enhancement of LiP from <i>Ganoderma lucidum</i> IBL-05 through different immobilization techniques for industrial application	Ph.D completed
7	Zinayyera Subhani (2012-ag-42)	Dr. M. Shahid Dr. Fatma Hussain Dr. Junaid Ali Khan	Characterization and efficacy of different aflatoxin detoxifying agents	Ph.D completed 2018
8	Fareeha Bashir (2009-ag-1342)	Prod. Dr. M. Asgher Dr. Fatma Hussain Dr. M. Atif Randhawa	Development of microbial proteases for industrial applications	Ph.D completed
9	Zainab Ahmed (2009-ag-1185)	Prof. Dr. M. Asgher Dr. Fatma Hussain Dr. M. Atif Randhawa	Enzymatic and bacterial modifications of natural biofibres for synthesis of biocomposites	Ph.D completed
10	Tahira Bashir (94-ag-1572)	Prof. Dr. M. Asgher Dr. Fatma Hussain Dr. Haq Nawaz Bhatti	Production and HPLC analysis of statins from local microbes	Ph.D completed
11	Maida (2007-ag-966)	Prof. Dr. Amer Jamil Dr. Fatma Hussain Dr. Nisar Ahmed	Isolation and expression of defending genes from some medicinal plants of cholistan desert plants	Ph.D completed
12	Nimra Khalid (2014-ag-724)	Prof. Dr. M. Asgher Dr. Fatma Hussain Dr. M. Atif Randhawa	Synthesis of animal based biodegradable plastics	Ph.D completed

B. AS THIRD MEMBER:

Sr. no.	Student name/ registration #	Supervisory Committee	Department	Research Title	Status
1	Ayesha Mehmood, (2003-ag-244)	Dr. Raja Adil Sarfraz Dr. Ijaz Ahmed Bhatti Dr. Fatma Hussain	Chemistry	Screening of selected plants for antidiabetic potential	Ph.D completed 2015
2	Shamas Murtaza, (2006-ag-1654)	Dr. Ayesha Sameen Prof. Dr. Nuzhat Huma Dr. Fatma Hussain	NIFSAT	Impact of dietary fiber and hydrocolloids on the quality of low fat cheddar cheese	Ph.D completed 2017
3	Kanza, (2007-ag-1134)	Prof. Dr. Masood Sadiq Butt Dr. Mian Kamran Sharif Dr. Fatma Hussain	NIFSAT	Probing the restorative potential of dates (<i>Phoenix dactylifera</i>) against atherogenic diet induced cardiac and hepatic stress	Ph.D completed 2017
4	M. Rizwan (2010-ag-3055)	Prof. Dr. Masood Sadiq Butt Dr. Allah Rakha Dr. Fatma Hussain	NIFSAT	-	Ph.D completed 2022
5	Ayesha Syed (2015-ag-363)	Prof. Dr. Masood Sadiq Butt Dr. Ahmad Din	NIFSAT	-	Course work in progress

		Dr. Fatma Hussain			
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9. Membership of learned Societies

1. Student member – Biochemical Society, UK (2007-2008)
2. Fellow/Student Associate - The Endocrine Society (Member since 2006)
3. Life Member - Diabetic Association of Pakistan (Member since 2006)
4. Life Member - The Chemical Society of Pakistan (Member since 2007)

10. Academic / Professional Distinctions

48. **Quaid-e-Azam Scholarship** - SSC Examination 1987.
49. **Certificate of Appreciation** - organized JUNOON CONCERT, held on August 4th, 2001 at Iqbal Stadium, FSD
50. **Certificate of Appreciation** - Successful implementation of ISO-9001-2000 CCBPL, FSD
51. **Resource person** -TCCQS - Quality Assurance Program 2004
52. **Certificates of Qualification:** Testing and Measuring equipment Calibrations, Microbiological Tests, Quality Control Tests and Analysis by CCBPL, FSD
53. **Position (2nd) holder** in “Research Orientation Program” at UAF held on September 21 – October 10, 2004.
54. **Resource Person** - Research Orientation Program at UAF held on August 8 – 20, 2005.
55. **Letter of Appreciation by VC** - Research Orientation Program at UAF held on August 8 – 20, 2005.
56. **Resource Person** - HEC Workshop on “Imparting Practical Training in Biochemical Techniques” at UAF held on February 27 – March 4, 2006.
57. **Resource Person** - Research Orientation Program (4th course) at UAF held on August 13- 27, 2007.
58. **Letter of Appreciation by VC** - Research Orientation Program (4th course) at UAF held on August 13- 27, 2007.
59. **Resource Person** - Workshop On imparting practical training in molecular and biochemical techniques. Golden Jubilee Celebrations. Department of Chemistry and Biochemistry Week June 8 – 14, 2011

Trainer: Lab. Exercise on solution preparation and chromatography

Convener: Printing and Publication Committee

60. **Member** Food Committee, 10th International and 22nd National Chemistry Conference. November 21-23, 2011 at Department of Chemistry and Biochemistry, University of Agriculture, Faisalabad
61. **Session Organizer:** Technical Session
Biochemistry/Biotechnology/Bioinformatics, 10th International and 22nd National Chemistry Conference November 21-23, 2011 at Department of Chemistry and Biochemistry, University of Agriculture, Faisalabad
62. **Member** “Technical Session and Hall Management Committee, 10th International and 22nd National Chemistry Conference November 21-23, 2011 at Department of Chemistry and Biochemistry, University of Agriculture, Faisalabad
63. **Convener** Practical management committee, Workshop On imparting practical training in molecular and biochemical techniques. Department of Chemistry and Biochemistry, University of Agriculture, Faisalabad. November 27- December 01, 2012
64. **Resource person:** Practical training on TLC, Workshop On imparting practical training in molecular and biochemical techniques. Department of Chemistry and Biochemistry, University of Agriculture, Faisalabad. November 27- December 01, 2012
65. **Member** Registration committee – International Conference on Biochemical and Chemical Sciences (ICBCS-2014) February 24-26, 2014 held at Department of Chemistry and Biochemistry, University of Agriculture, Faisalabad
66. **Convener** Biochemistry Session – International Conference on Biochemical and Chemical Sciences (ICBCS-2014) February 24-26, 2014 held at Department of Chemistry and Biochemistry, University of Agriculture, Faisalabad
67. **Member** Cultural committee – International Conference on Biochemical and Chemical Sciences (ICBCS-2014) February 24-26, 2014 held at Department of Chemistry and Biochemistry, University of Agriculture, Faisalabad
68. **Resource person:** Short course “Laboratory Attendant”, March, 2014
69. **Convener,** Sports Gala (girls), 2014 & 2015 (Coordinator: Faculty of Sciences team, Sciences White team ; winners of basketball, hand ball and cricket)

70. **Convener** - Registration committee. International Conference of Biochemistry, Biotechnology and Biomaterials. (ICBBB-2016), February 22 - 24, 2016. Department of Biochemistry, University of Agriculture, Faisalabad
71. **Member** - Entertainment committee. International Conference of Biochemistry, Biotechnology and Biomaterials. (ICBBB-2016), February 22 - 24, 2016. Department of Biochemistry, University of Agriculture, Faisalabad
72. **Coordinator:** Girls Cricket team (daffodils) – Winner of Department Cricket Gala held on 14-16 April, 2016.
73. **National Enrollment Drive** (Office of the Senior Tutor): 7th April, 2016 – Encouraged and guided the students for active participation. Out of fifteen volunteers, four Biochemistry students (two students Zainab Rafique and M. Ghous under my supervision) were awarded shields and certificates.
74. **Member** – Registration committee. One day seminar on “Tibb Nature and Science” organized by Tibbia College, Faisalabad in coordination with UAF at Iqbal Auditorium, 21st August, 2016.
75. **Committee member (Registration committee):** 2nd National two-day training Workshop on “Bioassays for Exploration of Bioactives” October 25-26, 2021 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad.
76. **Convener – (Hall management committee):** 2nd National two-day training Workshop on “Bioassays for Exploration of Bioactives” October 25-26, 2021 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad.
77. **Convener – (Stage committee):** National training workshop on ELISA based diagnostics” 26 May, 2022 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad.
78. **Convener – (Help during Sessions committee):** National training workshop on ELISA based diagnostics” 26 May, 2022 organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad.
79. **Advisor – SESCOB**

11. Participation in Conferences/Seminars

1. Attended workshop “Structural English introducing stepping forward series” organized by Paramount Books (Pvt.) Ltd. at Hameed Palace, Faisalabad. 5th June 1999.
2. Participated in 18th FAOBMB Symposium “Genomics and proteomics in Health and Agriculture” at Aiwan -e- Iqbal, Lahore. November 20-23, 2005.
3. Attended 16th All Pakistan Food Science Conference at University of Agriculture, Faisalabad. January 25-27, 2006.
4. Attended International Symposium on Agriculture in Century 21st - Challenges and Strategies at University of Agriculture, Faisalabad. March 14-15, 2006.
5. Attended Public Health Seminar “Diabetes Mellitus and Insulin” organized by MKRMS and Highnoon Laboratories at Serena Hotel, Faisalabad. March 30th, 2006.
6. Attended 6th International & 16th National Chemistry Conference “Quality of life and Chemical Sciences” Bahauddin Zakariya University, Multan. 6-8 April 2006.
7. Attended Nanotechnology week at University of Engineering and Technology, Lahore. Seminar “Carbon based nanotechnology” 18- 22 April 2006.
8. Participated in National Seminar on “Soil Care for Sustainable Environment” organized by Institute of Soil and Environmental Sciences, University of Agriculture, Faisalabad. May 16-17, 2006.
9. Attended International Seminar on Water and Environment – A Looming Crisis. Setting agenda for Effective Action, University of Agriculture, Faisalabad. August 20-22, 2006.
10. Participated in 1st Annual Diabetic & Endocrine Conference “Combat & Prevent Diabetes” organized by Pakistan Diabetic and Endocrine Society, Faisalabad Chapter at Serena Hotel, Faisalabad. 26th August 2006.
11. Participated in International Symposium on Sustainable Crop Improvement at University of Agriculture, Faisalabad. 14-16 September 2006.
12. Participated in International Symposium on “Strategies for crop improvement against Abiotic Stresses”. An event of Centenary Celebrations. Department of Botany, University of Agriculture, Faisalabad. 18-20 September 2006.

13. Attended 1st International Chemistry Conference at Government College University, Faisalabad. 1-3 November 2006.
14. Attended 18th National Chemistry Conference at Institute of Chemistry, University of the Punjab, Lahore. 25-27th February 2008.
15. **Presented** paper “Non-enzymatic Glycation: An Important Pathological Event in Diabetic Retinopathy” at 9th Biennial Conference “Advances in Biochemistry and Molecular Biology” at Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi. 17-20 December, 2008.
16. **Presented** poster “Diabetic Dermopathy: Clinical Correlates in Type 2 Diabetes” at 9th Biennial Conference “Advances in Biochemistry and Molecular Biology” at Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi. 17-20 December, 2008.
17. Participated in “International Conference on Recent Advances in Human Nutrition with special reference to Vulnerable Groups” and 20th All Pakistan Food Science Conference held at National Institute of Food Science and Technology (NIFSAT), University of Agriculture, Faisalabad. 22-24 February, 2010.
18. Attended 30th Pakistan Congress of Zoology (International) held at University of Agriculture, Faisalabad. 2-4 March, 2010.
19. Participated in “International Conference on Technological and Scientific Aspects of Dairy Products with Special Reference to French Cheeses ” held at National Institute of Food Science and Technology (NIFSAT), University of Agriculture, Faisalabad. 21-23 February, 2011.
20. Attended one day seminar on “Futuristic Approach towards Home Economics Education” organized by Department of Rural Home Economics, Division of Education & Extension, University of Agriculture, Faisalabad. March 10th, 2011.
21. Attended Rural Home Economics Week: Cooking Competition (female) at Rural Home Economics department, University of Agriculture, Faisalabad on 18-03-2011
22. Attended “Software Exhibition /Competition” organized by Computer Science department, University of Agriculture, Faisalabad on 29-30 March, 2011
23. Attended a seminar on "Research Strategy" arranged by the Office of Research, Innovation and Commercialization at new senate Hall, University of Agriculture, Faisalabad on 07-05-2011.

24. Participated in “Workshop on Implementation of Biosafety protocols” on May 14, 2011 at New Senate Hall, University of Agriculture, Faisalabad.
25. Joined national seminar on “GM Crops: A gateway to successful Agriculture” on 15th October, 2011 at Old Senate Hall, University of Agriculture, Faisalabad.
26. International Conference “Emerging Issues in Food Safety” held at National Institute of Food Science and Technology (NIFSAT), University of Agriculture, Faisalabad. 15-17 November, 2011.
27. Participated in “International Conference on Applied Genetics & Biotechnology” on 8-10 December, 2011 at Video Conference room, University of Agriculture, Faisalabad
28. Attended Alumini Association 58th meeting on 29th March, 2013 at Iqbal auditorium, University of Agriculture, Faisalabad
29. Attended Seminar “Polyamines in cell proliferation and its uses as a possible marker in the diagnosis of cancer” delivered by Prof. Dr. Ishtiaq Mahmud, foreign faculty, University of Karachi, on 30th March, 2013 at New Senate Hall, University of Agriculture, Faisalabad.
30. Participated in symposium on “Ticks and Tick-borne Diseases” Saturday, March 15, 2014 at Faculty Meeting Room, FVS, University of Agriculture, Faisalabad.
31. Alumni Meeting 24-26 April, 2015.
32. Dice 2015. Mega innovation and entrepreneurship even, November 24-25, 2015.
33. International Conference of Biochemistry, Biotechnology and Biomaterials. (ICBBB-2016), February 22 - 24, 2016. Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad.
34. 2nd International Conference of Biochemistry, Biotechnology and Biomaterials (ICBBB-2018), December 09-11, 2018 held at Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad.
35. Lecture on forensically proven that “the Qur’an as revealed script” by Javed I.Khan. February 14, 2020. Organized by Department of Biochemistry, Faculty of Sciences, University of Agriculture, Faisalabad.
36. **Participation:** 4TH Annual Symposium on Research, Scientific & Technical (RSciTech-2020) Writing, 27-28 February 2020 organized by Department of Chemistry, Faculty of Sciences, University of Agriculture, Faisalabad.

37. **Oral talk** - 1st International Conference on Emerging trends in interdisciplinary research in biomedical sciences (ETIRBS-2020), dated 10-11 December 2020 in University of Okara, Okara, Pakistan.
38. **Participation:** International Industrial Chemistry Conference IICC 2021, 26-28 February, 2021 organized by Department of Chemistry, NED University of Engineering and Technology, Karachi.
39. **Oral talk** - International Online Conference “Dynamic Strategies in Plant Sciences for Crop Sustainability and Food Security” 26-27 May 2021 Organized by Department of Botany, Government College Women University, Faisalabad, Pakistan.
40. **Oral talk** - 1st International Hybrid Mode Conference on Emerging Innovative Research Trends in Biology (EIRTB-2021) August 11-12, 2021 Organized by Department of Biotechnology and Genetic Engineering, Kohat University of Science and Technology Kohat, Pakistan.
41. **Oral Presentation:** “Antioxidant, Antidiabetic, Antimicrobial, Antihemolytic Activities of *Gymnema sylvestre* Leaves Extracts and Chemical Characterization – A Nanotechnology Approach” International Conference on Innovations in Chemistry and Physics ICP-2022 organized by University of Education, Lahore (Faisalabad Campus), 14-15 March, 2022.
42. **Oral Presentation:** “Antioxidant, Antidiabetic, Antimicrobial, Antihemolytic Activities of *Terminalia chebula* Fruit Extracts - A Nanotechnology Approach” International Conference on Chemical Sciences: A Multidisciplinary Approach (ICCS-MA) 2022 organized by Institute of Chemistry, Shah Abdul Latif University, Khairpur, Sindh, 29-31 March 2022.
43. One-day Seminar on “Exploitation of plant growth promoting microorganism for sustainable agriculture” organized by Department of Biochemistry, Govt. College University, Faisalabad, Pakistan, Dated: 1st April, 2022.
44. Webinar “Dissecting the scholarly publishing process: A current overview on the steps to getting published” organized by: Wiley Team, Dated: Jan 26, 2022.
45. Virtual participation in the COMSTECH Webinar on “Epigenetics, The immortals Kiss of our grandparents” organized by: OIC Ministerial Standing committee on Scientific and Technological Corporation (COMSTECH), Dated: Jan 25th, 2022.
46. International Symposium on “Digital Technologies for the Future World” organized by: OIC Ministerial Standing committee on Scientific and Technological Corporation (COMSTECH), Dated: January 19-20, 2022.
47. “Metabolomics Gateways for Milestones Discoveries in the Prehistoric and Post Genomics Era” organized by: OIC Ministerial Standing committee on Scientific and Technological Corporation (COMSTECH), Dated: January 07, 2022.
48. One day work shop on “Discovering the innovative progression in catalysis” organized by: Department of Chemistry University of Agriculture Faisalabad, Dated: 20th December, 2021.

49. Virtual organic & medicinal chemistry Symposium 2021 organized by: Syed Babar Ali School of Science and Engineering LUMS, Dated: December 16, 2021.
50. One day workshop on “Discovering the innovative progressions in Catalysis” 20th December, 2021 organized by Department of Chemistry, University of Agriculture, Faisalabad, Pakistan
51. “Randomized clinical trials – Ethical Aspects” organized by: OIC Ministerial Standing committee on Scientific and Technological Corporation (COMSTECH), Dated: December 07, 2021.
52. For virtual participation in the “World Food Day Webinar: Our Actions Are Our Future” organized by: COMSTECH & SAWIE, Dated: October 14, 2021.
53. “3rd International conference on chemical Engineering” organized by: Department of Chemical Engineering Mehran University of Engineering & Technology, Jamshoro, Pakistan, Dated: September 22nd-23rd, 2021.
54. **Oral presentation:** International Conference on Food & Applied Sciences (ICFAS-23) Dir- Kumrat. Shaheed Benazir Bhutto University, Sheringal, Dir, KPK. 3-5 August, 2023
55. **Oral presentation:** International Symposium on Drug Discovery and Development (ISDDD) Department of Biochemistry, University of Agriculture, Faisalabad, 1-2 March, 2024.