

Resume

DR. HUMA RAO

PhD, MPhil, Pharm. D

🏠 H#09 Garden Town Girls College Road, Bahawalpur

☎ +92 3318944763

✉ huma.rao@iub.edu.pk



PERSONAL INFORMATION

Father's Name: Rao Muhammad Alam

Date of Birth: October 20, 1986

Nationality: Pakistani

Religion: Islam

CNIC No. 35200-4616329-2

ABOUT ME

- To work in an organization that will let me explore my potential through acquiring a hard-working and challenging job.
- I love to utilize my interpersonal skills for teaching and research, as teaching is my passion.

EDUCATION

- **PhD (Pharmaceutical Chemistry) 2021**
The Islamia University of Bahawalpur
- **M.Phil (Pharmaceutical Chemistry) 2011**
The Islamia University of Bahawalpur
- **Pharm.D 2008**
The Islamia University of Bahawalpur
- **B.Sc. 2006**
The Islamia University of Bahawalpur
- **F.Sc. 2002**
B.I.S.E Lahore
- **Matric 2000**
B.I.S.E Multan

EXPERIENCE

As Associate Professor

1st July 2025 to date

College of Pharmacy, University of Health Sciences Lahore

As Lecturer

26th Apr 2022 to 30 June 2025

Department of Pharmaceutical Chemistry, Faculty of Pharmacy, IUB

As Pharmacist

16th Nov 2011 to 25th Apr 2022

Served as Pharmacist in Health Department Punjab

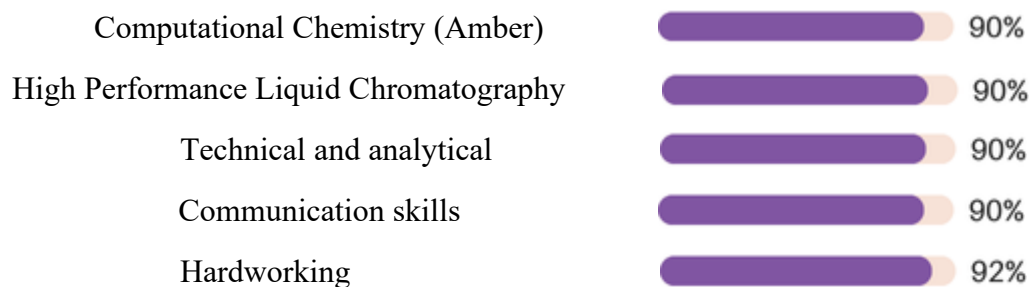
My HONOR

- Gold medalist in Pharm. D
 - Highest CPGA in MPhil & PhD
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INTERESTS



SKILLS



RESEARCH PROJECTS

- *Phytochemical investigation of Alhagi maurorum (M.Phil Research)*
 - *High Performance Liquid Chromatographic Assessment of Alprazolam and Desvenlafaxine in Available Pharmaceutical Dosage Forms, Nanoparticulate Formulations and Human Spiked Plasma (PhD Research)*
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TRAININGS

- Molecular Dynamic Simulation Techniques using Amber Software
- Pedagogical Training at The Islamia University of Bahawalpur, Pakistan

CONFERENCES

- 2nd International Conference on Innovation in chemistry, biochemistry, biotechnology and bioinformatics (ICBBB) 16-18 December 2024
- 2nd International Conference on current trends and innovations in drug delivery, BZU (CTIID) 23 February 2023

- 2nd International Conference on Science, Technology, Engineering, Mathematics, and Social Sciences (STEMS-2022), 24-25 March 2022
- IPCE (international pharmacy conference & exhibition) 20-21 February 2020
- 1st national pharmacy conference (HEC) 2-4 March 2007
- Improving clinical pharmacy practices in 9-10 June 2012 Pakistan (IUB)

ABSTRACTS IN CONFERENCES

1. *Canna flaccida* Salsb. (Golden Canna): Exploring the phytochemical and biological potential by invitro and insilico approaches (ICBBB) 16-18 December 2024
2. Synthesis, characterization and evaluation of Gastro-protective effect of NSAIDs' derivatives (ICBBB) 16-18 December 2024
3. Antioxidant and Curing efficacy of metabolomics identified from non-polar extract of *Acacia jacquemonth* Benth. to get insight into the health benefits (CTIDD 23 February 2023)
4. Phytochemical Screening and Exploration of *Dracaena reflexa* as Acetylcholinesterase and Butyrylcholinesterase inhibitors; *In-vitro* and *In-silico* approach (STEMS 24-25 March, 2022)
5. Phytochemical Analysis, Metabolic Profiling, Biological Assays, and In-silico Studies of *Typha domingensis* (STEMS 24-25 March, 2022)
6. Development and validation for RP-HPLC method for the simultaneous determination of Antidepressant drugs in bulk & pharmaceutical dosage forms. (IPCE 20-21 Feb, 2020)
7. *In-Vitro* Evaluation of Enzyme Inhibition of *Verbena officinalis* L. (IPCE 20-21 Feb, 2020)
8. Antibacterial potential of *Callistemon viminalis* and *Ruellia tweediana* (IPCE 2020)

ORGANIZING TASKS

WORKSHOPS ORGANIZED

- Organized a 2-Days workshop on “Drug design and development in the modern era” in the Department of Pharmaceutical Chemistry on **March 20–21, 2023**.
- Organized a 2-Days hands-on training on “computational chemistry in modern drug design in the Department of Pharmaceutical Chemistry on **April 24–25, 2024**.

EVENTS ORGANIZED

Serving as Incharge Student Affairs (ISA), Directorate of Student Affairs, The Islamia University of Bahawalpur

- Organized Orientation session for Pharm-D Session 2023-28
- Organized Orientation session for Pharm-D Session 2024-29
- Organized IUPA Reunion as Event Manager on December 2023

BOOK PUBLISHED

- Organic chemistry, From Basic to beyond (*A Textbook for Pharmacy Students & Chemistry Courses*); Saeed Ahmad, **Huma Rao**; Allied Book Company Lahore. ISSN:978-969-848-66-5

HEC APPROVED SUPERVISOR SINCE 30-08-2022

RESEARCH STUDENTS SUPERVISED FOR MPHILL

Sr. No.	Name of Students	Degree	Research Project
1.	Imran Hussain	MPhil (Spring 2023-25)	GC-MS analysis, <i>In-vitro</i> biological evaluation and <i>In-silico</i> studies of different fractions of <i>Canna flaccida</i>
2.	Habib Ullah	MPhil (Spring 2023-25)	Phytochemical analysis and biological evaluation of different fractions of <i>Portulaca olearacea</i>
3.	Muhammad Hassan	MPhil (Spring 2023-25)	NSAIDs and antioxidant conjugates
4.	Bareera Ismail	MPhil (Fall 2021-23)	Phytochemical analysis and biological evaluation of <i>Caralluma edulis</i>
5.	Javeria Siddique	MPhil (Spring 2021-23)	GCMS profiling, <i>In-vitro</i> Enzyme Inhibition and <i>In-silico</i> Molecular docking studies of Garden cress seeds
6.	Ayesha Taseen	MPhil (Spring 2021-23)	Phytochemical profiling, <i>Invitro</i> biological activities and <i>In-silico</i> Molecular docking studies of <i>Sargassum tenerrimum</i>
7.	Aamna Sheikh	MPhil (Spring 2021-23)	Phytochemical screening, biological evaluation, and molecular docking studies

RESEARCH STUDENTS CURRENTLY WORKING UNDER SUPERVISION

Sr. No.	Name of Students	Degree	Research Project
1.	Muhammad Zeeshan	PhD	Synthesis, characterization, and evaluation of mutual prodrugs of NSAIDs with Natural antioxidants
2.	Samra Farooq	PhD	Phytochemical analysis and <i>In vitro</i> , <i>In silico</i> evaluation of medicinal plants
3.	Sunder Zahra	PhD	Exploring the Medicinal Potential of <i>Lantana depressa</i> and <i>Tecoma fulva</i> through Phytochemical, Biological, and Computational Studies
4.	Mahtab Saleem	PhD	Medicinal Potential of <i>Oligochaeta ramosa</i> and <i>Mesembryanthemum cordifolium</i> : Phytochemical Profiling, Biological Activities, and <i>In Silico</i> Drug Discovery
5.	Rabya Javed	MPhil	Phytochemical analysis, and biological evaluation of <i>Tenacetum umbelliferum</i> by <i>In-vitro</i> , and <i>In-silico</i> approaches
6.	Muhammad Tasneem	MPhil	Phytochemical analysis, and biological evaluation of <i>Portulaca quadrifida</i>

PUBLICATIONS

Sr. No.	Title	Authors	Journal	Volume / Pg number	Category Impact Factor	Month / Year
1.	GC-MS analysis, comprehensive biological profiling, molecular docking and ADMET studies of <i>Ficus vasta</i> Forssk. n-hexane extract (https://doi.org/10.1080/20565623.2025.2527021)	Hanan Y. Aati, Abdul Rauf, Jawahir Al-Qatani, Bilal Ahmad Ghalloo, Areej AlTweel, Mona Khwery, Huma Rao , Muhammad Sajid-ur-Rehman & Kashif-ur-Rehman Khan	Future Science OA	Vol. 11, No. 1 Pg.1-16	2.4	July 2025
2.	Bioactivity Profiling of Chemically Characterized Extract of Saudi Jackfruit (<i>Artocarpus heterophyllus</i>) Using <i>In Vitro</i> and <i>In Silico</i> Approaches (https://doi.org/10.1155/sci5/8015648)	Hanan Y. Aati, Renad Al-Arifi, Chitchamai Ovatlarnporn, Abdul Rauf, Abdul Basit, Huma Rao , Maria Batool, and Kashif-ur-Rehman Khan	Scientifica	2025, Article ID 801564, pg. 1-17	2.3	May 2025
3.	Synergistic Application of Biochar and Bio-Organic Phosphate Enhances Drought Tolerance in Maize by Modulating Antioxidant Defense and Reducing Oxidative Stress (https://doi.org/10.1007/s42729-025-02430-y)	Ghulam Sarwar, Zainab Zahra, Tauseef Anwar, Huma Qureshi, Faizan Khalid, Muhammad Waqar Hassan, Muhammad Younus, Muhammad Sajid-ur-Rehman, Huma Rao , Faisal Shahzad, Wajid Zaman, Mansour Shrahili, Mohammad Javed Ansari	Journal of Soil Science and Plant Nutrition	1-15	3.4	17 April 2025
4.	Exploring phytochemical and biological profile of <i>Adiantum aleuticum</i> (Western maidenhair fern); an indigenous fern with medicinal potential.	Huma Rao , Saeed Ahmad, Muhammad Zeeshan, Mahpara Laiq, Abdul Basit, Sidra Iqbal, Imran Hussain, Syeda Sumayya Tariq, Zaheer Ul-Haq.	Results in Chemistry. ISSN 2211-7156	1;11:10 1751.	X 2.5	2024 Oct
5.	Exploring Phytochemical Profile and Biological Activities of <i>Callistemon viminalis</i> (Sol. ex Gaertn.) G. Don ex Loudon) By In vitro and In silico Approaches	Shamsa Kanwal, Saeed Ahmad, Huma Rao , Kashif-ur-Rehman Khan,	Chemistry & biodiversity ISSN:1612-1880	1-16 e202 4017 32	X 2.3	Oct 2024

	(doi.org/10.1002/cbdv.202401732)	Muhammad Zeeshan, Samra Farooq.				
6.	Compritol®-based solid lipid nanoparticles of desvenlafaxine prepared by ultrasonication assisted hot-melt encapsulation to modify its release	Huma Rao , Saeed Ahmad, Asadullah Madni, Imtiaz Ahmad	Nanomedicine ISSN 1743-5889	Feb (0).1-14	W 5.75	April 2024
7.	Synthesis, characterization, and molecular docking studies of novel hippuric acid anhydrides as potential antiurolithic, analgesic and free radical scavenging agents. (https://doi.org/10.1016/j.jscs.2024.101902)	Zahid Munawar, Kashif ur Rehman Khan, Humaira Nadeem, Saeed Ahmad, M Yasmin Begum, Ayesha Siddiqua, Huma Rao , Muhammad Tariq Khan	Journal of Saudi Chemical Society 1319-6103	1;28(5)	W 5.8	Sep 2024
8.	Characterization of <i>Thevetia peruviana</i> (Lucky nut) Bark Extracts by GC-MS analysis, along with evaluation of its Biological Activities, and Molecular Docking Study (https://doi.org/10.1016/j.heliyon.2024.e3315)1	Rao Anum Rehman Khan, Samina Afzal, Hanan Y. Aati, Sultan Aati, Huma Rao , Saeed Ahmad, Musaddique Hussain, Kashif-ur-Rehman Khan	Heliyon 2405-8440	2024 Jun 22	W 4.0	June 2024
9.	Comprehensive chemical profiling with UHPLCMS, in-vitro, in-silico, and in-vivo antidiabetic potential of <i>Typha domingensis</i> Pers; A novel source of bioactive compounds. https://doi.org/10.1016/j.sajb.2024.06.007	Rizwana Dilshad, Kashif-ur-Rehman Khan, Rihana Dilshad, Saeed Ahmad, Huma Rao , Umair Khurshid, Sultan Ahmad, Maqsood Ahmad, Hafiz Muhammad Usman Abid, Muhammad Kashif Zaman, Rabia Nisar, Saharish Khaliq, Bilal Ahmad Ghalloo	South African Journal of Botany, 0254-6299	171 (2024) 185-198	W 3.1	June 2024
10.	Protective effect of chemically characterized extract of <i>Viola stocksii</i> Boiss. against breast cancer and vincristine induced neuropathic pain by alleviation of oxidative stress and inflammatory markers (https://doi.org/10.1016/j.fbio.2023.103058)	Abdul Basit, Chitchamai Ovatlarnporn, Huma Rao , Saeed Ahmad, Warayuth Sajomsang, Jirada Singkhonrat, Safiullah Khan, Kifayat Ullah Khan, Hassan Shah, Kashif ur Rehman Khan	Food Bioscience ISSN 2212-4292	56 (2023) 103058	W 5.2	August 2023

11.	Phytochemical characterization of <i>Typha domingensis</i> and the assessment of therapeutic potential using <i>in vitro</i> and <i>in vivo</i> biological activities and <i>in silico</i> studies fchem.2023.1273191	Rizwana Dilshad, Kashif-ur-Rehman Khan, Saeed Ahmad, Asif Ansari Shaik Mohammad, Asmaa E. Sherif, Huma Rao , Maqsood Ahmad, Bilal Ahmad Ghalloo, M. Yasmin Begum	Frontiers in Chemistry ISSN 2296-2646	11:1273191	W 5.5	November 2023
12.	Chemical Profiling, <i>invitro</i> biological evaluation and molecular docking studies of <i>Ruellia tweediana</i> : An unexplored plant	Shamsa Kanwal, Saeed Ahmad, M. Yasmin Begum, Ayesha Siddiqua, Huma Rao , Bilal Ahmad Ghalloo, Muhammad Nadeem Shahzad, Imtiaz Ahmad, Kashif-ur-Rehman Khan	Saudi Pharmaceutical journal	32 (2024) 101939	W 4.1	26 December 2023
13.	<i>Chenopodium murale</i> L.: A Weed of Medicinal Importance - A Brief Review	Tayyeba Rehman, Huma Rao	Traditional and integrative medicine	8(4) Autumn 2023	0.2	December 2023
14.	Phytochemical analysis and bioactivity assessment of five medicinal plants from Pakistan: Exploring polyphenol contents, antioxidant potential, and antibacterial activities (https://doi.org/10.1016/j.sjbs.2023.103783)	Huma Rao , Iqra Rao, Laiba Saeed, Hanan Y. Aati, Sultan Aati, Muhammad Zeeshan, Kashif ur Rehman Khan	Saudi Journal of Biological Sciences 1319-562X	30 (2023) 103-783	W 4.052	August 2023
15.	Chemical profiling and biological activities of <i>Dipterygium glaucum</i> Decne.: An in-vivo, invitro and in-silico evaluation (https://doi.org/10.1016/j.sajb.2023.07.033)	Afia Shahid, Duraiz Ahmed Khan, Hanan Y. Aati, Asmaa E. Sherif, Chitchamai Ovatlarnporne, Musaddique Hussaing, Huma Rao , Muhammad Imran Khan, Muhammad Younus, Abdul Basit, Kashif ur Rehman Khan	South African Journal of Botany 0254-6299	160 (2023) 715-730	W 3.111	July 2023
16.	Phytochemical screening, biological evaluation, and molecular docking studies of aerial parts of <i>Trigonella hamosa</i> (branched Fenugreek) (https://doi.org/10.1016/j.bjc.2023.104795)	Huma Rao , Saeed Ahmad, Hanan Y. Aati, Abdul Basit, Imtiaz Ahmad, Bilal Ahmad Ghalloo, Muhammad Nadeem Shehzad, Rahat Nazar, Muhammad Zeeshan,	Arabian Journal of Chemistry 1878-5352	16, 104795	W 6.212	March 2023

		Muhammad Jawad Nasim, Kashif ur Rehman Khan				
17.	Chemical Characterisation, Antidiabetic, Antibacterial, and In Silico Studies for Different Extracts of <i>Haloxylon stocksii</i> (Boiss.) Benth: A Promising Halophyte (https://doi.org/10.3390/molecules28093847)	Syed Nabil Raza Rizvi, Samina Afzal, Kashif-ur-Rehman Khan, Hanan Y. Aati, Huma Rao , Bilal Ahmad Ghalloo, Muhammad Nadeem Shahzad, Duraiz Ahmed Khan, Tuba Esatbeyoglu and Sameh A. Korma	Molecules (ISSN 1420-3049)	28, 3847	W 4.927	May 2023
18.	Evaluation of the anti-inflammatory, antioxidant, and cytotoxic potential of <i>Cardamine amara</i> L. (Brassicaceae): A comprehensive biochemical, toxicological, and <i>in silico</i> computational study fchem.2022.1077581	Abdul Basit, Saeed Ahmad, Kashif ur Rehman Khan, Hanan Y. Aati, Asmaa E. Sherif, Chitchamai Ovatlarnporn, Safiullah Khan, Huma Rao , Muhammad Adeel Arshad, 18 Muhammad Nadeem Shahzad and Shagufta Perveen	Frontiers in Chemistry ISSN 2296-2646	10:1077581	W 5.545	Jan 2023
19.	Phytochemical Profiling of the Ethanollic Extract of <i>Zaleya pentandra</i> L. Jaffery and Its Biological Activities by <i>In-Vitro</i> Assays and <i>In-Silico</i> Molecular Docking (https://doi.org/10.3390/app13010584)	Afia Shahid, Kashif ur Rehman Khan, Huma Rao , Hanan Y. Aati, Asmaa E. Sherif, Duraiz Ahmed Khan, Abdul Basit, Muhammad Umair, Abdul Mueed, Tuba Esatbeyoglu, and Sameh A. Korma	Applied Sciences (ISSN 2076-3417)	13, 584.	X 2.838	DEC 2022
20.	Compritol-based alprazolam solid lipid nanoparticles for sustained release of alprazolam: preparation by hot melt encapsulation (https://doi.org/10.3390/molecules27248894)	Huma Rao , Saeed Ahmad, Asadullah Madni, Iqra Rao, Mohammed Ghazwani, Umme Hani, Muhammad Umair Imtiaz Ahmad, Nadia Rai, Maqsood Ahmed and Kashif ur Rehman	Molecules (ISSN 1420-3049)	27, 8894.	W 4.9270	DEC 2022
21.	Profiling of phytochemicals from aerial parts of <i>Terminalia neotaliala</i> using LC-ESI-MS ² and determination of antioxidant and enzyme inhibition activities	Muhammad Nadeem Shahzad, Saeed Ahmad, Muhammad Imran	PLoS One	17(3):1-22	W 3.7520	2022

	(https://doi.org/10.1371/journal.pone.0266094)	Tousif, Imtiaz Ahmad, Huma Rao , Bilal Ahmad, Abdul Basit				
22.	GC-MS profiling, phytochemical and biological investigation of aerial parts of <i>Leucophyllum frutescens</i> (berl.) i.m. johnst (cenizo) (https://doi.org/10.1016/j.sajb.2022.04.038)	Imtiaz Ahmad, Saeed Ahmed, Esra K€upeli Akkolc, Huma Rao , Muhammad Nadeem Shahzad, Umar Shaukata, Abdul Basit, Maryam Fatima	South African Journal of Botany	148:200-209	W 3.111	2022
23.	Efficacy of phytochemicals derived from roots of <i>Rondeletia odorata</i> as antioxidant, antiulcer, diuretic, skin brightening and hemolytic agents—a comprehensive biochemical and in silico study (https://doi.org/10.3390/molecules27134204)	Anjum Khursheed, Saeed Ahmad, Kashifur-Rehman Khan, Muhammad Imran Tousif, Hanan Y. Aati, Chitchamai Ovatlarnporn, Huma Rao , Umair Khurshid, Bilal Ahmad Ghalloo, Sobia Tabassum and Abdul Basit	Molecules (ISSN 1420-3049)	27, no. 13 (2022): 4204	W 4.9270	2022
24.	Metabolic profiling by GCMS, <i>In-vitro</i> biological potential, and <i>In-silico</i> molecular docking studies of <i>Verbena officinalis</i> (https://doi.org/10.3390/molecules27196685)	Rabia Nisar, Saeed Ahmad, Kashif-ur-Rehman Khan, Asmaa E. Sherif, Fawaz Alasmari, Afaf F. Almuqati, Chitchamai Ovatlarnporn, Mohsin Abbas Khan, Muhammad Umair, Huma Rao , Bilal Ahmad Ghalloo, Umair Khurshid, Rizwana Dilshad	Molecules (ISSN 1420-3049)	Oct 8;27(19): 6685	W 4.9270	2022
25.	Synthesis, biochemical characterization and <i>In silico</i> investigation of 3-(butylamino)-4-phenoxy-5-sulfamoylbenzoic acid derivatives: dual action mode inhibitors of urease and virulent bacterial strains (https://doi.org/10.1042/BCJ20220395)	Sajid Irshad, Saeed Ahmad, Shafi Ullah Khan, Mohsin Abbas Khan, Syeda Abida Ejaz, Huma Rao , Umair Khurshid, Aftab Ahmed, Nadeem Shahzad, Hamad M. Alkahtani, Affan Waheed, Tanveer A. Wani and Abdullahi Tunde Aborode	Biochemical Journal (2022) 479 2035–2048	2022 Oct 7;479(19):203548	W 3.7660	2022

26.	Phytochemical, biological, and in-silico characterization of <i>Portulacaria afra</i> jacq.: a possible source of natural products for functional food and medicine (https://doi.org/10.1016/j.sajb.2022.07.009)	Sobia Tabassum, Saeed Ahmad, Kashifur Rehmana, Umair Khurshid, Huma Rao , Abdulwahab Alamri, Mukhtar Ansari, Barkat Ali, Muhammad Waqas, Hammad Saleem, Sirajudheen Anwar	South African journal of Botany 1727-9321	150 (2022): 139-145	W 3.111	2022
27.	New mechanistic insights on <i>Justicia vahlii</i> roth: uplc-q-tof-ms and gc-ms based metabolomics, <i>In-vivo</i> , <i>In-silico</i> toxicological, antioxidant based anti-inflammatory and enzyme inhibition evaluation https://doi.org/10.1016/j.arabjc.2022.104135	Abdul Basit, Saeed Ahmad, Kashif ur Rehman Khan, Asmaa E. Sherif, Hanan Y. Aati, Chitchamai Ovatlarnporn, Mohsin Abbas Khan, Huma Rao , Imtiaz Ahmad, Muhammad Nadeem Shahzad, Bilal Ahmad Ghalloo, Hassan Shah, Kifayat Ullah Khan	Arabian Journal of Chemistry 1878-5352	15, 104135 : 1-22	W 6.212	2022
28.	Single-step extraction for simultaneous quantification of desvenlafaxine and alprazolam in human spiked plasma by RPHPLC	Huma Rao , Saeed Ahmad, Asadullah Madni, Imtiaz Ahmad, Muhammad Nadeem Shahzad	Plos One	15(9):1-14 ISSN: 1932-6203	W 3.7520	2020
29.	Free Radical Scavenging Potential of <i>Leucophyllum frutescens</i> Through Two Optimized Spectroscopic Techniques	Imtiaz Ahmad, Saeed Ahmed, Huma Rao , Nadeem Shehzad, Rabia Nisar, Shamsa Kanwal and Umer Shaukat	World journal of Pharmacy and Pharmaceutical Sciences	9(5)		May 2020
30.	Phytochemical composition and pharmacological prospectus of <i>Ficus bengalensis</i> Linn. (Moraceae)- A review	Saeed Ahmad, Huma Rao , Muhammad Akhtar, Irshad Ahmad, Muhammad Munawar Hayat, Zafar Iqbal and Nisar-ur-Rahman	Journal of medicinal plants Research	5(28)		Nov 2011

REFERENCE

- **Prof. Dr. Saeed Ahmad**
Ex-Dean, Faculty of Pharmacy
Ex-Dean, Faculty of Medicine & Allied
Health Sciences
Ex-Chairman, Department of
Pharmaceutical Chemistry
The Islamia University of Bahawalpur.
Cell: +92-0300-6801267
E-mail: rsahmed_iub@yahoo.com
- **Prof. Dr. Muhammad Asadullah Madni**
PhD (Pharmaceutical Sciences, IUB, Pakistan) Post Doc (Pharmaceutical Nanotechnology,
Univ. of Auckland, New Zealand)
Chairman, Department of Pharmaceutics
Faculty of Pharmacy
Director, Quality Enhancement Cell (QEC)
The Islamia University of Bahawalpur.
Cell: +92-0300-6821979
Office: +92-62-9255243
Fax: +92-62-9255565
E-mail: asadpharmacist@hotmail.com