DR. FARZANA SHAHEEN

Professor

(H. E. J. Research Institute of Chemistry) International Center for Chemical and Biological Sciences University of Karachi, Karachi-75270 Pakistan

CURRICULUM VITAE

Name:	Prof. DR. FARZANA SHAHEEN
	TUI. DR. FARZANA SHAHEEN
Date of Birth:	January 2, 1970
Nationality:	Pakistani
Present Position:	Professor
Address (Work):	H.E.J. Research Institute of Chemistry,
	International Center for Chemical and Biological Sciences, University of Karachi, Karachi-75270 Pakistan Fax: 92-213-4819018, 4819019 Tel: 92-2199261769 Email: <u>afnan.iccs@gmail.com</u>

ACADEMIC CAREER

DEGREE	YEAR	BOARD/UNIVERSITY
Secondary School Certificate (SSC)	1985	Rawalpindi Board
Intermediate Certificate (HSC)	1987	Rawalpindi Board
B. Sc.	1989	University of the Punjab
M. Sc.	1993	Quaid-i-Azam University, Islamabad
M. Phil.	1995	Quaid-i-Azam, University, Islamabad
Ph. D.	2000	H. E. J. Research Institute of Chemistry, University of Karachi, Karachi
	2005	Southampton University, UK
UNESCO-L'Oreal Fellow		
Senior Fulbright Fellow	2008- 2009	UC-Davis, USA

AWARDS AND SCHOLARSHIPS

- Merit Certificates in Chemistry and Zoology including President's Talent Farming Scholarship at B.Sc level in 1989.
- 2. Chancellor's Gold Medal for standing first in M. Phil 1995.
- First Prize in Poster Presentation in National Chemistry Conference organized by the Department of Chemistry, University of Punjab, Pakistan, September 4-8, 1997.
- 4. UNESCO L' OREAL Fellowship for Young Women in Life Sciences, 2004.
- 5. DR. M. Raziuddin Siddiqi prize 2006.
- 6. Fulbright Scholarship 2008-2009.
- 7. OWSD Young Women Scientist Award 2011
- 8. Pakistan Academy of Sciences Gold Medal (2012) in Chemistry

Scientific achievements have been profiled in the Young Women in Life Science booklet (2009) created by Science and Times Higher Education article, UK (December 2011).

EXPERIENCE

- 1 M.Sc. thesis project entitled "Reduction of 2-alkyl-5-nitrobenzimidazoles to 2alkyl-5-aminobenzimidazoles in different media and Preparation of Azo Dyes", under the supervision of Prof. Dr. Mashooda Hasan, Department of Chemistry, Quaid-i-Azam University, Pakistan, 1990-1992.
- 2. M.Phil. thesis project entitled "Preparation of Substituted Benzimidazoles and Regioisomers of Unsymmetrical Benzimidazoles and their Optically Active

Derivatives", under the supervision of Prof. Dr. Mashooda Hasan, Department of Chemistry, Quaid-i-Azam University, Pakistan, 1993-1995.

- 3. Ph.D. thesis project entitled "Isolation of Antiepileptic Constituents and Biotransformation of Bioactive Natural Products from some Medicinally Important Plants of Pakistan", under the supervision of Prof. Dr. M. Iqbal Choudhary H.I., T.I., S.I., H. E. J. Research Institute of Chemistry, University of Karachi, 1995-1999. Ph.D. studies led to the discovery of potent anticonvulsant natural products isoxylitones.
- Research Officer, H.E.J. Research Institute of Chemistry, University of Karachi, Karachi-75270, (2000 – 2001).
- Assistant Professor, H.E.J. Research Institute of Chemistry, University of Karachi, Karachi-75270, (BPS 2001 -2007, TTS 2007-2012).
- Visiting Scholar, UNESCO L'OREAL Fellowship Program (2005) Advisor: Dr. A. Ganesan, Department of Chemistry, Southampton University, UK.
- 7. Fulbright Visiting Scholar, UC-Davis (2008-2009).

Advisor: Prof. Kit S. Lam, Project: Synthesis and screening of encoded onebead-one-compound natural product like combinatorial libraries.

CURRENT RESPONSIBILTIES

- 1 Professor at the H.E.J. Research Institute of Chemistry.
- 2 Teaching stereochemistry at graduate level at H.E.J. Research Institute of Chemistry
- 3 Faculty In charge of Intellectual Property Rights Office of ICCBS
- 4 Faculty In charge ICCBS Libraries
- 5 Students enrolled for M.Phil./Ph.D.

S. No.	Name of Student	Date of	Title of Thesis
		Registration	
1.	Mr. M. Nadeem-ul	2014	Structural and Biological Studies on
	Haque		Phloroglucinol-type compounds from Medicinal Plants of Pakistan

2.	Ms. Hira Shahzad	2016	Synthesis and Bioactivity Evaluation of Combinatorial Libraries of Peptides and peptidomimetics
3.	Ms. Anila Bashir	2016	Studies on Bioactive Constituents of Delphinium denudatum and Synthesis of Bioactive Peptides
4.	Mr. Serab Khan	2015	Synthesis and Structural Studies ofBiologically Important Peptides
5.	Mr. Hunain Ali	2016	Studies on new Peptide-conjugated with Heterocyclies
6.	Ms. Qurat-ul Ain	2015	Synthesis of New Analogues ofBioactive Cyclic Peptides
7.	Ms. Iqra Kanwal	2017	Synthetic and Structural Studies onNew Bioactive Peptides
8.	Ms. Farkhanda Mushtaq	2017	Studies on New Anticancer Peptides

SCHOLARS PRODUCED:

Ph.D. Scholars

1. Dr. Manzoor Ahmad (2006)

Title of Thesis: Isolation and Characterization of Secondary Metabolites from *Myrtus communis* Linn., *Delphenium Roylei* Munz. and related Medicinal Plants

2. Dr. Shazia Kousar (2010)

Title of Thesis: Isolation of bioactive natural products from *Picrorhiza kurrooa* and *Saussurea albescens* and combinatorial modifications of some bioactive natural products.

3. Dr. Liaquat Ali (**2012**)

Title of Thesis: Synthetic Studies on Anticancer Phakellistatins 12 & 13 and Phytochemical Investigations on *Gratiola officinalis* and *Prunus cerasoides*.

4. Dr. Tania S. Rizvi (2012)

Solid Phase Total Synthesis of Cytotoxic Cherimolacyclopeptide E, and its Analogues and Isolation and Characterization of Bioactive Natural Products from *Sorbus cashmiriana* and related Medicinal Plants.

5. Dr. Syed Hamid Hussain Under co-supervision (2012)

Phytochemistry and Bioactivity of Selected High Altitude Plants belonging to *Ligularia, Senecio* and *Vernonia* genera

6. Dr. Noureen Khan (2014)

Phytochemical Investigation on *Myrtus communis* Linn. and Structureactivity Relationship Studies on Anticonvulsant Natural Products

- Dr. Shagufta Rasool (2014) Isolation of Bioactive Natural Products from *Marrubium vulgare*
- 8. Dr. Zafar Ali Shah (2016)

Bioassay-guided Isolation of Secondary Metabolites from *Salix acmophylla* and Solid-phase Synthesis of Biologically Active Peptides

9. Ms. Samreen Ashraf (2017) (Thesis submitted)

Synthesis and Anticancer Screening of Combinatorial Libraries of Cyclic Peptides and Other Compounds

M.Phil. Scholars

1. Mr. Liaquat Ali (2007)

Title of Thesis: Bio-assay guided phytochemical investigations on *Tamus communis, Plantago major* and related Medicinal Plants.

2. Mr. Muhammad Zeeshan (2007)

Title of Thesis: Isolation and Characterization of Secondary metabolites from *Aconitum* and *Delphenium* species of Pakistani origins

3. Mr. Waqar Ahmad (2010)

Title of Thesis: Bioactivity-guided phytochemical investigations on *Trichodesma indicum* and other related Medicinal Plants

4. Ms. Sundus Akhtar (2011)

Title of Thesis: Synthesis and Structure-Activity Relationship Studies of Cytotoxic Cyclic Peptides "Dichotomins" and Isolation of Bioactive Natural Products from *Saussurea Albescens*

6. Ms. Nurgis Tabassum (2014)

Title of Thesis: Solid-Phase Synthesis of New Antiviral and Antifungal Peptides and Isolation of Bioactive Compounds From *Picrorhiza Kurroa*.

- Mr. Syed Comail Ali Shah (2015): Title of Thesis: Synthetic, Structural and Biological Studies of Cyclic And Branched Peptides and Bioassy-guided Isolation of Secondary Metabolites From *Myrtus Communis* Linn.
- 8. Ms. Salma Nazir (**2016**)

"Synthesis of Peptide Libraries In Search of New Anticancer Molecules

RESEARCH PROJECTS:

- 1 Principal investigator of IDB funded Research Project entitled "Bioassayguided isolation of antiepileptic compounds from medicinal plants of Pakistan". Successfully completed the research work of above mentioned research project during 2003- 2005.
- 2 Principal investigator of HEC funded Research Project entitled "Synthesis and Structure Activity Relationship Studies of antiepileptic compounds". Successfully completed the research work of above mentioned research project during 2007-2010.

- 3 Principal Investigator of OPCW funded research Project entitled, "Solid-Phase Synthesis and SAR Studies of Cyclic Peptides to Develop New Antiinflammatory Agents' (2012-2014).
- 4 Principal investigator of HEC funded Research Project entitled, "Synthesis and SAR Study of Antimicrobial Cyclic Peptides" during 2012-2014.
- 5 Principal investigator of Pakistan Science Foundation project entitled, Synthesis of Combinatorial Libraries of Cyclic Peptides in Search of Novel Medicinal Agents".(Project period 2014-2016).
- 6 Co-Principal investigator of HEC funded Research Project entitled, "Development of New Antiviral and Anticancer Steroids by Combinatorial Synthesis and High-throughput Biological Screening- a New Approach to Drug Discovery".
- 7 Principal investigator of HEC funded Research Project entitled, "Discovery and Development of new anticancer molecules based on Natural Products and Their Derivatives" (Project No. **5738**/Sindh/NRPU/R&D/HEC/2016)

PARTICIPATION IN INTERNATIONAL AND NATIONAL CONFERENCE / SYMPOSIA

- The 6th International Symposium on the Chemistry of Natural Products and Pak-US Binational Workshop on GCMS organized by the H.E.J. Research Institute of Chemistry, University of Karachi, Pakistan in January 4-8, 1996.
- The 7th International Symposium on the Chemistry of Natural Products organized by H.E.J. Research Institute of Chemistry, University of Karachi, Pakistan in December 28, 1997-January 1, 1998.
- The 5th National Chemistry Conference organized by the Department of Chemistry, Quaid-i-Azam University, Islamabad, Pakistan in October 25-28, 1993.
- 10. The 8th National Chemistry Conference organized by the Department of Chemistry, University of Punjab, Pakistan, September 4-8, 1997.

- 11. The 9th National Chemistry Conference organized by the Department of Chemistry and H.E.J. Research Institute of Chemistry, University of Karachi, Pakistan in December 6-8, 1998.
- 12. Presented an invited lecture in International Workshop on, "Research Strategies on Medicinal and Aromatic Plants" held at the Research and Development Institute, The Government Pharmaceutical Organization, Thailand from 14-18 August, 2000.
- Presented an invited lecture in 7th Eurasia Conference on Chemical Sciences (EuAsC2S- 7), International Center for Chemical Sciences, *H. E. J.* Research Institute of Chemistry, University of Karachi, Karachi (2002).
- 14. 10th Asian Symposium on Medicinal Plants, Spices and other Natural Products held at Dhaka, Bangladesh, from November 18-23, 2000 and presented a poster entitled, "Isolation of DNA Damaging Diterpenoids from *Gelonium multiforum*" in ASOMS X.
- 15. 9th International Symposium on Natural Product Chemistry, International Center for Chemical Sciences, *H. E. J.* Research, Institute of Chemistry, University of Karachi, Karachi (2004).
- 8th International Symposium on Protein Structure Function Relationship January 7-10, 2005, Karachi, Pakistan.
- 17. 10th International Symposium on Natural Product Chemistry, January 06-09,
 2006, H. E. J. Research Institute of Chemistry University of Karachi, Pakistan.
- Workshop on New Instrumentation and Application of Mass Spectrometry August 7-9, 2006, H. E. J. Research Institute of Chemistry University of Karachi, Pakistan.
- First IBRO School of Neuroscience March 26-30, 2007, Dr Panjwani Center for Molecular Medicine and Drug Research, International Center for Chemical & Biological Sciences, University of Karachi, Pakistan.

- 9th International Symposium on Protein Function Relationship, January 11-14,
 2007, International Center for Chemical and Biological Sciences, University of Karachi, Karachi, Karachi.
- 21. Presented a seminar on "Design Synthesis and Screening of Encoded Natural Products Like OBOC Libraries in June 11, 2009, UC Davis USA.
- 22. Presented a seminar on "Anticonvulsant Natural Products" October 08, 2008, UC Davis USA.
- 23. Presented a lecture entitled, "Jeffamine-Derivatized Tentagel Beads in High-Throughput Releasable Solution-Phase Assay". in 12th International Symposium on Natural products Chemistry, on 24th November, 2010.
- 24. Presented a lecture entitled, "Discovery of New Medicinal Agents from Medicinal Plants and Synthetic Combinatorial Libraries", in International Symposium on Women in Science and Engineering (WISE), on 29thOctober, 2011.
- 25. Presented a lecture entitled, "Synthesis and High-Throughput Screening of One-Bead One-Compound Combinatorial Libraries", in International Workshop on Modern Techniques in Combinatorial Chemistry on 15th June, 2011.
- 26. Speaker at the ISNPC-13th entitled, "Solid-Phase Synthesis and Biological Studies of Cyclic Peptides", organized by International Center for Chemical and Biological Sciences, on September 23, 2012.
- 27. Keynote speaker at The International Symposium on Medicinal-Aromatic Plants, during 4-7 June 2013 in Izmir, Turkey.
- Invited speaker at The XIV Asian Symposium on Aromatic Plants and Spices, during 9-12 December 2013 in Karachi, Pakistan.
- 29. Participated in the Seminar on Fundamentals of Intelluctual Property (IP) on 23rd September 2013, under the program of Commercial Law Development

Program) CLDP), Office of the General Counsel US Department of Commerce (USDOC).

- 30. Participated in the Training Workshop on Drafting Patent Applications organised by ORIC Department of COMSATS on October 11, 2013.
- 31. Presented Country report during Senior Management Programme on Managing Research and Technological Organizations during 19-13 June, 2014 under the Malaysia Technological Cooperation Program (MTCP) at Kuala Lumpur, Malaysia.
- 32. Resource person in International Workshop cum Exhibition on "Sustainable Utilization of Natural Products for Human Health and well Being " held during January 19-20, 2014 in Iran.
- Presented the COMSATS Thematic Group Activities (2013-2014) in 17th Meeting of the Coordinating Council of COMSATS held in IROST Complex, Tehran Iran, 19-20 May, 2014.
- Attended the International Conference on Cardiovascular Diseases during April 3-5, 2015, at PC-Hotel, Rawalpindi, Pakistan.
- 35. Attended a roundtable conference on the 'Development of a National Intellectual Property (IP) Strategy,' organised by the World Intellectual Property Organisation (WIPO) in cooperation with Intellectual Property Organisation of Pakistan (IPO-Pakistan) and European Union (EU) on April 24, 2015.
- Organized a Workshop on Intellectual Property Rights Management through Patents during January 8 - 9, 2015.
- 37. Organized the on-line workshop entitled, "Intellectual Property Rights and Entrepreneurship in Pakistan" in collaboration with the Federation of Pakistan Chambers of Commerce & Industry (FPCCI), and Intellectual Property Organization (IPO) on the occasion of World Teachers' Day on October 05, 2015.
- National Training Workshop entitled, "Library Automation Package by Using KOHA ILS" jointly organized by PASTIC, Islamabad and ICCBS at LEJ,

National Science Information Center, ICCBS, University of Karachi during December 15-17, 2015.

- 39. A three-day National Workshop entitled, "Design and Development of Digital Library Using D-space and Organizing Research with Reference Management Tools", during December 29-31, 2016.
- Invited lecture in 14th Eurasia Conference on Chemical Sciences, entitled, "Studies on Naturally Occuring Proline Containing Cyclic Peptides and Some Synthetic Peptide Conjugates: organized by the ICCBS during December, 15-18, 2016.

LIST OF PUBLICATIONS

Total Number of publications: 64

Total citations: 735; *h*-index: 16

Papers

S. No.	Research Papers
1.	Microbial transformations of hypolipaemic E-guggulsterone, Atta-ur-Rahman,
	M. I. Choudhary, F. Shaheen, M. Ashraf and S. Jahan, J. Nat. Prod., 61, 4, 428-
	431, (1998).
2.	Microbial transformation of some bioactive natural products, Atta-ur-Rahman,
	M. I. Choudhary, F. Shaheen, A. Rauf Raza, and A. Farooq, Nat. Product
	<i>Lett.</i> ,12, 3, 215, (1998).
3.	Preparation of optically active amino acid derivatives of some methylated-5-
	amino-azaheterocycles, M. Hasan, F. Shaheen, U. Yunas and S. Munir, Turkish
	Journal of Chemistry 24, 163-176. (2000).
4.	Studies on the methylation of 5-nitrobenzimidazoles, M. Hasan, F. Shaheen, U.
	Yunas and S. Munir, Turkish Journal of Chemistry, 24, 73-79, (2000).
5.	Inhibition of pentylenetetrazole and bicucculine-induced epileptiform activity in
	cultured hippocampal neurons by an aqueous fraction isolated from Delphenium
	denudatum, M. Raza, S. Sombati, F. Shaheen, A. Suria, M. I. Choudhary and R.
	J. DeLorenzo, <i>Epilepsia</i> , 38 (Suppl. 8) 10 (1997).
6.	Anticonvulsant activities of the FS-1 sub fraction isolated from roots of
	Delphinium denudatum. M. Raza, S. Sombati, F. Shaheen, A. Suria, M. I.

	Choudhary, Atta-ur-Rahman and R. J. DeLorenzo, Phytotherapy Research, 15,
	426-430, (2001).
7.	Anticonvulsant activities of ethanolic extract and aqueous fraction isolated from
	Delphinium denudatum. M. Raza, S. Sombati, F. Shaheen, A. Suria, M. I.
	Choudhary, Atta-ur-Rahman and R. J. DeLorenzo, Journal of
	<i>Ethnopharmacology</i> , 78, 1, 73-78, (2001).
8.	Anticonvulsant effect of FS-1 isolated from roots of Delphinium denudatum on
	hippocampal pyramidal neurons. M. Raza, , F. Shaheen, M. I. Choudhary,,
	Atta-ur-Rahman, S. Sombati, A. Suria and R. J. DeLorenzo, Phytotherapy
	Research , 17, 38-43 (2003).
9.	In vitro Inhibition of pentylenetetrazole and bicuculline induced epileptiform
	activity in rat hippocampal neurons by aqueous fraction isolated from
	Delphinium denudatum. M. Raza, F. Shaheen, S. Sombati, M. I. Choudhary,
	Atta-ur-Rahman and R. John. DeLorenzo, Neuroscence Letters, 333, 103-106
	(2002).
10.	Staraidal alkalaida from the loover of Saucesser covinger of Nevelage Origin
10.	Steroidal alkaloids from the leaves of <i>Sarcococca coriacea</i> of Nepalese Origin,
	Surya K. Kalauni, M. Iqbal Choudhary, F. Shaheen, Mangala D. Manandhar, Atta-ur-Rahman, Mohan B. Gewali, and Asaad Khalid, <i>J. Nat. Prod.</i> , 64, 842-
	844 (2001).
	344 (2001) .
11.	New cholinesterase inhibiting steroidal alkaloids from the leaves of Sarcococca
	coriaceea of Nepalese origin, Surya K. Kalauni, M. Iqbal Choudhary, Asaad
	Khalid, F. Shaheen, Mangala D. Manandhar, Atta-ur-Rahman, and Mohan B.
	Gewali, Chem. & Pharm. Bull., 50, 1423-1426 (2002).
12.	A new diepoxy-ent-kauranoid rugosinin from Isodon rugosus, M.Iqbal
	Choudhary, Ahmed Abbaskhan, Atta-ur-Rahman, Zeba Parween, Yoshisuke
	Tsuda, R. B. Tareen, F. Shaheen, Mudassir Asrar, Planta Medica, 69, 91-94
	(2003).
13.	Novel diterpene lactones from Suregada multifora, Ismet Ara Jahan, Nilofar
	Nahar, M. Moshiuzzaman, F. Shaheen , Atta-ur-Rahman, M. Iqbal Choudhary,
	, in moundaire, in channel, in multiplice, in the second se

	<i>J. Nat. Prod.</i> , 65, 932 – 934 (2002).
14.	Six new diterpenoids from Suregada multifora, Ismet Ara Jahan, Nilofar Nahar,
	M. Moshiuzzaman, F. Shaheen, Atta-ur-Rahman, M. Iqbal Choudhary, J. Nat.
	<i>Prod.</i> , 67, 1789-1795, (2004).
15.	Microbial transformation of androsta-1,4-dione-3,17-dione M. I. Choudhary, S.
	G. Musharraf, and F. Shaheen, Atta-ur-Rahman, Nat. Prod. Lett., 16, (6) 377-
	382, (2002) .
16.	New approaches in medicinal plant research, M. Iqbal Choudhary, Atta-ur-
	Rahman and F. Shaheen, Pak. J. Anal. Chem., 3, 24-30 (2002).
17.	Microbial transformation of cortisol and prolyl endopeptidase inhibitory activity
	of its transformed products, M. I. Choudhary, S. Sultan, M. Yaqoob, S. G.
	Musharraf, A. Yasin, F. Shaheen and Atta-ur-Rahman, Nat. Prod. Res., 17, (6)
	389 - 395 (2003).
18.	Three tyrosinase inhibitors and antioxidant compounds from Salsola foetida K.
	M. Khan, G.M. Maharvi, A. A. Khan, S. Hayat, M.T.H.Khan, T.Makhmoor,
	M.I.Choudhary, F. Shaheen, and Atta-ur-Rahman, Helv. Chim. Acta., 86, 457-
	464 (2003).
19.	Biotransformation of (+) androst-4-en-3, 17-dione, M. I. Choudhary, S. Sultan,
	M. T. H. Khan, A. Yasin, F. Shaheen and Atta-ur-Rahman, Nat. Prod. Res., 6,
	529-535 (2004).
20.	Microbial transformation of dehydroepiandrosterone, M. I. Choudhary, S. A. Ali
	Shah, S. G. Musharraf, F. Shaheen and Atta-ur-Rahman, Nat. Prod. Res., 17,
	215-220, (2003).
21.	Microbial transformation of isolongifolen-4-one, M. I. Choudhary, S. G.
21.	Musharraf, M. T. H. Khan ⁷ D. Abdelrahman, M. Parvez, F. Shaheen , and Atta-
	ur-Rahman, <i>Helv. Chim. Acta</i> , 86, 3450-3460, (2003).
22.	Saponins from <i>Cussonia bancoensis</i> and their inhibitory effects on nitric oxide
	production, L. A. Tapondjou, D. Lontsi, B. L. Sondengam, F. Shaheen, M. I.
	Choudhary, Atta-ur-Rahman, F. R. V. Heerden, HJ. Park and K. –T Lee, J.
	<i>Nat. Prod.</i> 66, 1266-1269 (2003).

23.	Cholinesterase inhibiting new steroidal alkaloids from <i>Sarcococca hookeriana</i> of Nepalese Origin, M. I. Choudhary, K. P. Devkota, S.A. Nawaz, F. Shaheen ,
	Atta-ur-Rahman, Helv. Chim. Acta, 87, 1099-1108, (2004).
24.	 Pharmacological and biological investigations of <i>Chenopdium murale</i> Linn., B. Ahmad, Q Jan, S. Bashir, M. Nisar, F. Shaheen and M. Ahmad, <i>Asian Journal of Plant Sciences</i>, 2, 1107-1111, (2003).
25.	Conformations of Imperatorin, Atta-ur-Rahman, S. Zareen, M. Iqbal Choudhary, F. Shaheen , and Masood Pervez, <i>Acta Crsyt. E</i> 60, 01460-01462 (2004).
26.	Microbial Transformation of (+)-Androsta-1,4-Diene-3,17-Dione by <i>Cephalosporium Aphidicola</i> , M. Iqbal Choudhary, S. G. Musharraf, F. Shaheen , and Atta-ur-Rahman, <i>Nat. Prod. Lett</i> . 16, (6) 377-382 (2002).
27.	Isolation of bioactive compounds from <i>Aspergillus terreus</i> , M. I. Choudhary, S. G. Musharraf, T. Mukhmoor, F. Shaheen , S. Ali, and Atta-ur-Rahman, <i>Z. Naturforsch</i> . 59b , 324-328 (2004).
28.	Inhibition of sustained repetitive firing in cultured hippocampal neurons by an aqueous fraction isolated from <i>Delphinium denudatum</i> , M. Raza, F. Shaheen, M. I. Choudhary, S. Sombati, Atta-ur-Rahman and R. John. DeLorenzo, <i>J. Ethnopharmacol</i> . 90 (2-3):367-74 (2004).
29.	20- <i>N</i> -Ethyl-1,8,14-trihydroxy-16 36,18-dimethoxylycoctonine, F. Shaheen , M. Ahmad, S. Anjum, M. I. Choudhary, and Atta-ur-Rahman, <i>Acta</i> <i>Crystallographica Section E</i> , E60, 0774-0776 (2004).
30.	Alkaloids of <i>Aconitum laeve</i> Royle and their anti-inflammatory, antioxidant and tyrosinase inhibition activities, F. Shaheen , M. Ahmad, M. T. H. Khan, S. Jalil, A. Ejaz, M. N. Sultankhodjaev, M. Arfan, M. I. Choudhary, and Atta- ur-Rahman, <i>Phytochemistry</i> , 66, 935-940, (2005).

31.	Fungal metabolites of <i>E</i> -guggulsterone, and their antibacterial and radical- scavanging activities. M. I. Choudhary, S. Adnan, Ali Shah, Amtul Sami, Asma Ejaz, F. Shaheen , Atta-ur-Rahman, <i>Chem. Biodiv.</i> 2, 516-524, (2005).
32.	Syntheses and biological activities of chalcone and 1,5-benzothiazepine derivatives: promising new free-radical scavengers, and esterase, urease, and α -glucosidase inhibitors, F. L. Ansari, S. Umbreen, L. Hussain' T. Makhmoor, S. A. Nawaz, M. A. Lodhi, S. N. Khan, F. Shaheen , M. I. Choudhary, Atta-ur-Rahman, <i>Chem. & Biodiv.</i> , 2 (4),487-496, (2005).
33.	New α -Glucosidase Inhibitors and Antibacterial Compounds from <i>Myrtus</i> communis L., Farzana Shaheen , Manzoor Ahmad Shamsun Nahar Khan, Syeda Samreen Hussain, Shazia Anjum, Bahodir Tashkhodjaev, Kambarali Turgunov, Mukhlis N. Sultankhodzhaev, Muhammad Iqbal Choudhary, and Atta-ur-Rahman, <i>European Journal of Organic Chemistry</i> , 10, 2371-2377, (2006).
34.	Three new norditerpenoid alkaloids from <i>Delphinium nordhagenii</i> , Farzana Shaheen , Muhammad Zeeshan, Manzoor Ahmad, Shazia Anjum [,] Shamsher Ali, Hoong-Kun Fun, Muhammad Iqbal Choudhary and Atta-ur-Rahman, <i>J. Nat Prod.</i> , 69, 823-825, (2006).
35.	Antispasmodic Effect of <i>Acorus calamus</i> Linn., is Mediated through Calcium Channel Blockade, Anwar ul Hassan Gilani, Abdul Jabbar Shah, Manzoor Ahmad and F. Shaheen , <i>Phytother. Res.</i> , 20 1080-1084, (2006).
36.	14-Acetyl-20-ethyl-1,8-dihydroxy-16,18-dimethoxylycoctonine, M. Ahmad, S. Ali, F. Shaheen , S. Anjum and M. I. Choudhary, Acta Cryst. E62, 01428-01430, (2006).
37.	Solid-Phase Total synthesis of Decapeptide Phakellistatin 12, Liaquat Ali, Syed Ghulam Musharraf, Farzana Shaheen , <i>J. Nat. Prod.</i> 71 (6), 1059–1062, (2008).

38.	Norditerpenoid alkaloids from the roots of Aconitum heterophyllum Wall with
	antibacterial activity M. Ahmad, W. Ahmad, M. Ahmad M.
	Zeeshan, Obaidullah, F. Shaheen, Journal of Enzyme Inhibition and
	<i>Medicinal Chemistry</i> , 23, (6), 1018 – 1022, (2008).
39.	New antibacterial pentacyclic triterpenes from Myricaria elegans Royle.
	(tamariscineae) M. Ahmad, W. Ahmad, S. Khan, M. Zeeshan, Obaidullah, M.
	Nisar, F. Shaheen, M. Ahmad, Journal of Enzyme Inhibition and Medicinal
	<i>Chemistry</i> , 23, (6), 1023 – 1027. (2008).
40.	Urease inhibitor from Datisca cannabina linn., M. Ahmad M. Noor;
	M. Ahmad; M. A. Lodhi; N. Jehan; Z. Khan; R. Ranjit; F. Shaheen, M. I.
	Choudhary, Journal of Enzyme Inhibition and Medicinal Chemistry, 23(3),
	386-90, (2008).
41.	Antioxidant Flavonoids from Tamus communis ssp. Cretica, F. Shaheen, Liaqat
	Ali, Sajjad Ali, Nurgun Erdemoglu, Bilge Sener,. Chemistry of Natural
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