

## Dr. Hina Siddiqui

Date of Birth: 11 Oct' 1983

Lab. 323, H.E.J. Research Institute of Chemistry,  
International Center for Chemical and Biological Sciences,  
University of Karachi, Karachi 75270  
E-mail: hinahej@gmail.com



---

### Employment:

#### Assistant Professor under Tenure Track System

14<sup>th</sup> Feb 2012- dated

H.E.J. Research Institute of Chemistry  
International Center for Chemical and Biological Sciences  
University of Karachi

#### Research Officer under Tenure Track System

Aug 2010 – Feb 2012

H.E.J. Research Institute of Chemistry  
International Center for Chemical and Biological Sciences  
University of Karachi

#### Research Officer under the Project Strengthening of H.E.J. Research June 2010 - July 2010 Institute of Chemistry Phase II

H.E.J. Research Institute of Chemistry  
International Center for Chemical and Biological Sciences  
University of Karachi

### Academics:

- **Post Doctoral Fellow**, Institute for Organic Chemistry, University of Tubingen, 2015  
Germany  
Natural Product Synthesis with Prof. Dr. Martin E. Maier
- **Ph.D.** (Organic Chemistry), H.E.J Research Institute of Chemistry, University of Karachi 2010  
Karachi  
Dissertation: "Studies on Antioxidant Properties of Chemical Constituents and Synthesis of Sultam Libraries as Novel Potential Therapeutic Agents."
- **GRE Chemistry** (67 percentile), Educational Testing Service, USA. 2009
- **Visiting Research Scholar**, University of Kansas, USA. 2007-2008
- Have completed **Ph.D. course work** successfully.

First class in the regular **M. Phil. courses** held at the H.E.J Research Institute of **2006-2007** Chemistry.

- Certificate Course of **X-Ray Crystallography**, International Center for Chemical and Biological Sciences, University of Karachi. **2005**
- Successfully completed First level of French language from *Alliance Francaise de Karachi*. **2005**
- First class **Masters Degree** in Organic Chemistry from the University of Karachi. **2004**
- **M.Sc. Dissertation:** “Antioxidant and Nutritional Profile of Dietrotty Bio-waste in Pakistan.” **2004**
- First class **B.Sc. (Honors) degree** in Chemistry from the University of Karachi. **2003**
- First division in **Higher School Certificate** (Pre-medical) from Karachi Board. **2000**
- First class in **Secondary School Certificate** from Karachi Board. **1998**

#### **Awards/Honours and Fellowships:**

- Selected as IUPAC affiliated fellows for the year 2013-2014.
- Research Productivity Award 2012 by Pakistan Council for Science and Technology.
- Research Productivity Award 2011 by Pakistan Council for Science and Technology.
- **BEST ORAL PRESENTATION** award in the 11<sup>th</sup> Eurasia Conference on Chemical Sciences held 6-10<sup>th</sup> October 2010-The Dead Sea-Jordan (**2010**).
- Partial funding to attend the 11<sup>th</sup> EURASIA conference in Jordan from University of Jordan (**2010**).
- Have been interviewed for the Dawn.com for achieving the award in the 11<sup>th</sup> Eurasia Conference. (**2010**).
- Have been interviewed in the Dawn News channel for the show named “The First Blast” (**2009**).
- UBF (Umeear Basha Foundation) scholarship for advanced studies and research training in organic synthesis at University of Kansas, USA for a year (**2007-2008**).
- Graduate Research Fellowship, International Center for Chemical and Biological Sciences, University of Karachi, Pakistan. (**2005**).

### Professional Memberships:

- Life member of The Chemical Society of Pakistan.
- Associate Young Scientists of the Pakistan Academy of Sciences.
- IUPAC affiliated fellow for the year 2013-2014.

### Research Experience:

**May 2015-July 2015** • Post Doctoral Fellow at Institute for Organic Chemistry, University of Tübingen, Germany.

Advisor: Prof. Dr. Martin E. Maier:

In the laboratory of Prof. Dr. Martin E. Maier, I synthesized a fragment of Streptostein A by using Stroke-Danheiser Alkylation-Enone Transposition Variation and state of the art technologies being employed in synthetic organic chemistry.

**Feb 2012- dated Assistant Professor under Tenure Track System** at the H.E.J. Research Institute of Chemistry International Center for Chemical and Biological Sciences. University of Karachi

Brief Job Description: Running a small research group in the field of synthetic organic chemistry. My primary job is to conduct research and train students in the field of synthetic organic chemistry particularly medicinal chemistry, central to this goal we are synthesizing libraries of heterocyclic small molecules based on natural product skeleton such as betacarblin derivatives, thiourea and tyramine derivatives. Followed by testing their biological activities against multiple targets such as enzymes and MDR bacteria like *e. coli* and *s. aureus*.

Moreover I am also involved in teaching and training of young graduate students at H.E.J. Research Institute of Chemistry International Center for Chemical and Biological Sciences. Actively involved in organizing and conducting various workshops and symposiums held at ICCBS.

**Aug 2010 – Feb 2012** Research Officer/Post doctoral fellow at the H.E.J. Research Institute of Chemistry International Center for Chemical and Biological Sciences. University of Karachi.

Advisor: Prof. Dr. Mohammad Iqbal Choudhary

Brief Job Description: Establishing a synthetic organic chemistry laboratory. My primary job is to conduct research in the field of synthetic organic chemistry particularly development of new synthetic methodologies for drug development and to probe the chemical space through combinatorial libraries. Central to this goal, I am working on the synthesis of anti-malarial trioxanes, tetraoxanes, and other bioactive heterocyclic compounds such as synthesis and crystal structures of sultams, benzoimidazoles, benzthioimidazole and related compounds.

Moreover I am also involved in teaching and training of young graduate students at H.E.J. Research Institute of Chemistry International Center for Chemical and Biological Sciences.

Actively involved in organizing and conducting various workshops and symposiums held at ICCBS.

**2008-2010** Research Fellow at the H.E.J. Research Institute of Chemistry International Center for Chemical and Biological Sciences. University of Karachi.

Advisor: Prof. Dr. Mohammad Iqbal Choudhary and Prof. Dr. Fatima Z. Basha

Research: Study of antioxidant compounds from natural and synthetic sources, Synthesis and <sup>13</sup>C NMR Studies of a Series of Novel Oxime Ethers, helped young graduates in their respective research projects, Ph.D. thesis writing and etc.

**2007– 2008** Visiting Research Scholar at the University of Kansas, USA

Advisor: Prof. Dr. Paul R. Hanson

Research: Development of new facile pathways to skeletally diverse benzofused sultams. Developed a new Sonogashira–Pauson–Khand pathway to tricyclic sultams. Also develop new C-arylation pathways to fused 6- and 7-membered benzofused sultams.

**2005-2007** Junior Research Fellow at the H.E.J. Research Institute of Chemistry International Center for Chemical and Biological Sciences. University of Karachi.

Advisor: Prof. Dr. Mohammad Iqbal Choudhary

Study of antioxidant compounds from natural and synthetic sources, which includes phytochemicals, isolated from various medicinal plants, and belonged to different classes of compounds. Several *In vitro* bioassays were used to assess the antioxidant potential of these compounds such as the DPPH and superoxide anion radical scavenging assays followed by structure-activity relationship studies.

### Teaching Experience:

- Taught a course of **Infrared Spectroscopy** as a component of CHM-701 (General Spectroscopy) to the MS students of ICCBS.
- Course In charge of **ASR-701 Research Methodology I** to the MS students of ICCBS
- Course In charge of **ASR-702 Research Methodology II** to the MS students of ICCBS
- Co-ordinator of a Ph.D. course entitled **Recent Advancements in Chemical Sciences (Chm-806)**.
- **Organic Chemistry** tutor in the 2<sup>nd</sup> Camp of 8<sup>th</sup> National Chemistry Talent Contest organized by H.E.J. Research Institute of Chemistry International Center for Chemical Sciences. University of Karachi during 1<sup>st</sup> Jan-10<sup>th</sup> Jan 2012.
- **Organic Chemistry** tutor in the 3<sup>rd</sup> Camp of 7<sup>th</sup> National Chemistry Talent Contest organized by H.E.J. Research Institute of Chemistry International Center for Chemical Sciences. University of Karachi during June 12<sup>th</sup> –July 4<sup>th</sup> 2011.

- **Organic Chemistry** tutor in the 1<sup>st</sup> Camp of 8<sup>th</sup> National Chemistry Talent Contest organized by H.E.J. Research Institute of Chemistry International Center for Chemical Sciences. University of Karachi during June 24<sup>th</sup> – July 3<sup>rd</sup>, 2011.
- **Organic Chemistry** tutor in the 2<sup>nd</sup> Camp of 7<sup>th</sup> National Chemistry Talent Contest organized by H.E.J. Research Institute of Chemistry International Center for Chemical Sciences. University of Karachi.

### **Instruments Handling:**

I have a good command in handling of Hi-tech instruments, including but not limited to Elisa readers, NMR spectrometer, Mass spectrometer, GC, IR spectrophotometer, Biotage for modern Flash Chromatography, microwave synthesizer and etc.

### **Computer Environment Experience:**

Operating System: Windows 98/2000/XP/Vista/Linux and Mac.

Software Application: MS office suite, fluent use of multiple software employed in Chemistry, including but not limited to ChemBioOffice, Soft Max Pro, MestReNova, SciFinder Scholar, ACD labs, EndNote, Topspin and etc.

### **Workshops, Conferences & Symposiums Organized/ Attended:**

- Member organizing committee in 14<sup>th</sup> Asian Symposium on Medicinal Plants, Spices and Other Natural Products organized by ICCBS, HEJ Research Institute of Chemistry, University of Karachi, Karachi, held 9-12th December, 2013.
- Lecture entitled **Synthesis of Novel Harmaline Analogues as Potent Inhibitors of MDR *E. coli*** in 14<sup>th</sup> Asian Symposium on Medicinal Plants, Spices and Other Natural Products organized by ICCBS, HEJ Research Institute of Chemistry, University of Karachi, Karachi, held 9-12th December, 2013.
- Conducted a workshop/seminar on **Research Paper Writing Skills** at Indus University organized by quality Enhancement Cell (QEC) of Indus University on 29th August, 2013.
- Delivered 104<sup>th</sup> lecture on **“Discovery of Antioxidants of Natural and Synthetic Origin”** organized by Pakistan Association of Scientists and Scientific Professions (PASSP) on Tuesday the 27<sup>th</sup> August 2013.
- Conducted an online workshop entitled **“How to Write Research Papers for High Impact Factor Journals”** in the International Conference on Driving Research towards Economy Opportunities and Challenges organized by Sri Lankan Academy of Young Scientists (SLAYS) on 5<sup>th</sup> July, 2013.

- Organizing Secretary of the workshop entitled “**Virtual Workshop on Scientific Writing**” held January 23<sup>rd</sup>, 2013, Organized by VEPP (Virtual Education Project Pakistan) and Latif Ebrahim Jamal National Science Information Center (International Center for Chemical and Biological Sciences) University of Karachi, Karachi75270, Pakistan. (*Second Resource Person*).
- Attended two-days workshop entitled “**Project Formulation Workshop**” on January 17-18, 2013 jointly organized by Pakistan Science Foundation and University of Karachi, Karachi held at KIBGE auditorium.
- Attended the **4<sup>th</sup> International Symposium-Cum-Training Course on Molecular Medicine and Drug Research (MMDR-4)** organized by the International Center for Chemical and Biological Sciences (ICCBS), University of Karachi, January 7-10, 2013.
- Lecture entitled “Probing the Chemical Space through Small Molecular Libraries-Dimedone as a Versatile Substrate to obtain Reagent-Based Diversity” in **13<sup>th</sup> International Symposium on Natural Product Chemistry** organized by ICCBS, HEJ Research Institute of Chemistry, University of Karachi, Karachi, held 22-25<sup>th</sup> Sep’2012.
- Organizing Secretary of the two days workshop entitled “**Developing Skills for the Interpretation of 1D and 2D NMR Spectral Data for the Structure Determination of Organic Molecules**” held April 25-26<sup>th</sup>, 2012, Organized by VEPP (Virtual Education Project Pakistan) and Latif Ebrahim Jamal National Science Information Center (International Center for Chemical and Biological Sciences) University of Karachi, Karachi75270, Pakistan. (*one of the Resource Persons*)
- Attended a certificate course entitled **Research and Project Proposal Development and Program Management** held at Pakistan Institute of Public Health Research in collaboration with Bridge Consultation Foundation, 16-27<sup>th</sup> April’ 2012.
- Organizing Secretary of the workshop entitled “**How to Write A Winning Scientific Research proposal?**” held September 24<sup>th</sup>, 2011, Organized by VEPP (Virtual Education Project Pakistan) and Latif Ebrahim Jamal National Science Information Center (International Center for Chemical and Biological Sciences) University of Karachi, Karachi75270, Pakistan. (*Second Resource Person*)
- Organizing Secretary of the workshop entitled “**How to Write Scientific Manuscripts for High Impact factor Journals?**” held July 23, 2011, Organized by VEPP (Virtual Education Project Pakistan) and Latif Ebrahim Jamal National Science Information Center (International Center for Chemical and Biological Sciences) University of Karachi Karachi75270, Pakistan. (*Second Resource Person*)

- Organizing member of a workshop entitled “**International Workshop on Modern Techniques in Combinatorial Chemistry**” June 14-16, 2011, Islamabad, Pakistan Organized by H.E.J. Research Institute of Chemistry (International Center for Chemical and Biological Sciences), University of Karachi, Karachi-75270, Pakistan COMSTECH, Islamabad, Pakistan and COMSATS Thematic Group on Natural Product Sciences, Pakistan. (*Coordinator for ICCBS Students*)
- Attended workshop entitled “National Workshop on Chemical Laboratory Safety and Security in Universities of Pakistan” held and organized by ICCBS, HEJ Research Institute of Chemistry, University of Karachi, Karachi, February 22-23, 2011.
- Attended workshop entitled “3-Day Workshop on Synthetic Biology and Its Dual Use” held and organized by COMSTECH February 3-5, 2011.
- Attended the 3<sup>rd</sup> International Symposium-Cum-Training Course on Molecular Medicine and Drug Research (MMDR-3) organized by the International Center for Chemical and Biological Sciences (ICCBS), University of Karachi, January 3-6, 2011.
- Attended the 12<sup>th</sup> International Symposium on Natural Product Chemistry organized by ICCBS, HEJ Research Institute of Chemistry, University of Karachi, Karachi, held 22-25<sup>th</sup> Nov’2010. (*Oral Presentation*)
- Workshop on IOCD-Chemaxon workshop in Cheminformatics, Dead Sea, Jordan, 10<sup>th</sup> October 2010.
- Participated in the 11<sup>th</sup> Eurasia Conference on Chemical Sciences held 6-10 October 2010-The Dead Sea-Jordan. (*Oral Presentation*)
- Participated in 8<sup>th</sup> International and 20<sup>th</sup> National Chemistry Conference 2010 held during February 15-17, 2010 at Quaid-i-Azam University, Islamabad, Pakistan. (*Oral Presentation*)
- Participated in 11<sup>th</sup> International Symposium on Natural Product Chemistry organized by ICCBS, HEJ Research Institute of Chemistry, University of Karachi, Karachi, 29<sup>th</sup> Oct to 1<sup>st</sup> Nov, 2008. (*Poster Presentation*)
- Participated in 42<sup>nd</sup> Midwest regional meeting of Chemistry and Life Sciences, held at Kansas City, USA, 2007.
- Participated in the 9<sup>th</sup> International Symposium on Protein Structure Function Relationship organized by ICCBS, HEJ Research Institute of Chemistry, University of Karachi, Karachi, Jan 11-14, 2007.
- Participated in 10<sup>th</sup> International Symposium on Natural Product Chemistry organized by ICCBS, HEJ Research Institute of Chemistry, University of Karachi, Karachi, Jan 6-9, 2006. (*Poster*)

**Presentation)**

**Oral/ Poster Presentations:**

- **Delivered an EndNote X5 tutorial and conducted exercise session** in the workshop entitled “How to Write Scientific Manuscripts for High Impact factor Journals?” held July 23, 2011, Organized by VEPP (Virtual Education Project Pakistan) and Latif Ebrahim Jamal National Science Information Center (International Center for Chemical and Biological Sciences) University of Karachi Karachi75270, Pakistan.
- Presented an oral presentation entitled “**Discovery of Antioxidants of Natural and Synthetic Origin**” in 12<sup>th</sup> International Symposium on Natural Product Chemistry organized by ICCBS, HEJ Research Institute of Chemistry, University of Karachi, Karachi, held 22-25<sup>th</sup> Nov’2010.
- Presented an oral presentation entitled “**Use of Diversity Oriented Synthesis in the Development of New Methods for Synthesis of Biologically Active Sultams**” in 11<sup>th</sup> Eurasia Conference on Chemical Sciences held 6-10 October 2010-The Dead Sea-Jordan.
- Presented an oral presentation entitled “**Development of new methods for synthesis of biologically active Chemistry sultams: a DOS (Diversity Oriented Synthesis) approach.**” in 8th International and 20th National Chemistry Conference 2010 held during February 15-17, 2010 at Quaid-i-Azam University, Islamabad, Pakistan.
- Presented poster entitled “**Diversity-Oriented synthesis: Developing New Methods for Synthesis of Skeletally Diverse Sultams**” in 11<sup>th</sup> International Symposium on Natural Product Chemistry organized by ICCBS, HEJ Research Institute of Chemistry, University of Karachi, Karachi, 29<sup>th</sup> Oct to 1<sup>st</sup> Nov, 2008.
- Presented poster entitled “**C-H Insertion Reactions: a Versatile Method to Dibenzothiazine Dioxides**” in KU Summer Undergraduate poster symposium held at Kansas Union, University of Kansas sponsored by KU Madison & Lila Self Graduate fellowship, July 28, 2008.
- Presented poster entitled “**Measurement of DPPH Radical Scavenging Activity of Some Natural and Synthetic Compounds In Vitro**” in The 9th International Symposium on Protein Structure Function Relationship organized by ICCBS, HEJ Research Institute of Chemistry, University of Karachi, Karachi, Jan 11-14, 2007.
- Presented poster entitled “**Antioxidant and Nutritional profile of Dietary Bio-waste of Pakistan**” in 10<sup>th</sup> International Symposium on Natural Product Chemistry organized by ICCBS, HEJ Research Institute of Chemistry, University of Karachi, Karachi, Jan 6-9, 2006.



**Books Published:**

1. **Siddiqui, Hina** ., Choudhary M. I. 2013. Creating Chemical Space & Evaluation of their Biological Activities: Discovery of New Antioxidants and Synthesis of Sultam Libraries as Novel Potential Therapeutic Agents. Germany: Scholar's Press. ISBN-10: 3639511069, ISBN-13: 978-3639511062.

**List of Peer Reveiwed Publications:**

1. Harmaline and its Derivatives Against the Infectious Multi-Drug Resistant Escherichia coli, **Hina Siddiqui**, Sehar Tasneem, Saba Farooq, Amtul Sami, Atta-ur-Rahman and Muhammad Iqbal Choudhary, *Medicinal Chemistry*, Accepted
2. Ultrasonic synthesis of tyramine derivatives as novel inhibitors of  $\alpha$ -glucosidase *in vitro*, **Siddiqui, H.**, Bashir, M.A., Javaid, K., Nizamani, A., Bano, H., Yousuf, S., Rahman, A.U., Choudhary, M.I., *Journal of Enzyme Inhibition and Medicinal Chemistry*, Volume 31, Issue 6, **2016**, Pages 1392-1403.
3. Synthesis and in vitro  $\alpha$ -chymotrypsin inhibitory activity of 6-chlorobenzimidazole derivatives, Siddiqui, H., Farooq, R., Marasini, B.P., Malik, R., Syed, N., Moin, S.T., Atta-ur-Rahman, Choudhary, M.I., *Bioorganic and Medicinal Chemistry*, Volume 24, Issue 16, **2016**, Pages 3387-3395.
4. Essential Oils of the Leaf, Stem-Bark, and Nut of Artocarpus camansi: Gas Chromatography-Mass Spectrometry Analysis and Activities against Multidrug-Resistant Bacteria, Ante, I., Aboaba, S., Siddiqui, H., Choudhary, M.I., *Journal of Herbs, Spices and Medicinal Plants*, Volume 22, Issue 3, **2016**, Pages 203-210.
5. Zahid Hussain, Ejaz Hussain, Hina Siddiqui, M. Iqbal Choudhary and Sammer Yousuf, 2,6-Difluoro-N-(prop-2-ynyl)benzamide, *Acta Cryst.* (**2013**). E69, o1440
6. S. Yousuf, **H. Siddiqui**, R. Farooq and M. I. Choudhary, 2-[3-(1,3-Benzothiazol-2-yl)-2,2-dimethylpropyl]-2-methyl-2,3-dihydro-1,3-benzothiazole, *Acta Cryst.* (**2012**). E68, o2349.
7. S. Yousuf, **H. Siddiqui**, R. Farooq and M. I. Choudhary, N-(4-Methoxy-2-nitrophenyl)-N-(methylsulfonyl) methanesulfonamide, *Acta Cryst.* (**2012**). E68, o2090.
8. Sajjan Lal Shyaula, Ghulam Abbas, **Hina Siddiqui**, Samina A. Sattar, M. Iqbal Choudhary and Fatima Z. Basha, Synthesis and Antiglycation Activity of Kaempferol-3-O-rutinoside (Nicotiflorin), *Medicinal Chemistry*, **2012** 8(3):415-20.
9. Vinitha M. Thadhani, M. Iqbal Choudhary, Sajjad Ali, Iman Omar, **Hina Siddiqui** and Veranja Karunaratne, Antioxidant activity of some lichen metabolites, *Natural Product*

*Research*, Vol. 25, No. 19, November **2011**, 1827–1837.

10. Saqib Faisal, Amina F. Basha, **Hina Siddiqui**, and Fatima Z. Basha, *O*-Alkylation of Menthone Oxime: Synthesis and <sup>13</sup>C-NMR Studies of a Series of Novel Oxime Ethers, *Synthetic Communications* **2010**, 40 (20), 3101-3108.
11. Atta-ur-Rahman, Sumaira Hareem, Muhammad Iqbal Choudhary, Bilge Sener, Ahmed Abbaskhan, **Hina Siddiqui**, Shazia Anjum, Ilkay Orhan, Ilhan Gurbuz, and Filiz Ayanoglu, New and Known Constituents from *Iris unguicularis* and Their Antioxidant Activity. *Heterocycles* **2010**, 82 (1), 813-824.
12. Orhan, I.; Demirci, B.; Omar, I.; **Siddiqui, H.**; Kaya, E.; Choudhary, M. I.; Ecevit-Genç, G.; Özhatay, N.; Şener, B.; K. Hüsni Can Başer, Essential oil compositions and antioxidant properties of the roots of twelve Anatolian *Paeonia* taxa with special reference to chromosome counts. *Pharmaceutical Biology* **2010**, 48 (1), 10-16.
13. Rayabarapu, D.; Zhou, A.; Jeon, K. O.; Samarakoon, T.; Rolfe, A.; **Siddiqui, H.**; Hanson, P. R.  $\alpha$ -Haloarylsulfonamides: Multiple Cyclization Pathways to Skeletally Diverse Benzofused Sultams. *Tetrahedron* **2009**, 65, 3180–3188.
14. Munawar Hussain, Durey Nayab Zahra, Abdul Malik, Asma Ejaz, **Hina Siddiqui**, Muhammad Iqbal Choudhary and Zaher Ahmed, Flavonoidal C-Glycosides from *Abutilon Pakistanicum*, *Heterocycles* **2008**, 75 (3), 645-653.
15. M. Iqbal Choudhary, Nadra Naheed, Ahmed Abbas Khan, Syed Ghulam Musharraf, **Hina Siddiqui** and Atta-ur-Rehman, Phenolics and other Constituents of fresh water Fern *Salvinia molesta*, *Phytochemistry*, **2008**, 69 (4), 1018-1023.
16. Uzma Ashiq, Rifat Ara, Mohammad Mahroof Tahir, Zahida T. Maqsood, Khalid M. Khan, Shumsun N. Khan, **Hina Siddiqui**, M. Iqbal Choudhary, Synthesis, Spectroscopy and Biological properties of Vanadium(IV)-Hydrazide Complexes, *chemistry & biodiversity*, **2008**, 5, 82-92.
17. Muhammad Iqbal Choudhary, Sumaira Hareem, **Hina Siddiqui**, Shazia Anjum, Shamsheer Ali, Atta-Ur-Rahman, Mudassir Israr Zaidi, A benzil and isoflavone from *Iris tenuifolia*, *Phytochemistry*, **2008**, 69, 1880-1885.

## References:

1. **Prof. Dr. Atta-ur-Rahman, FRS, N.I., H.I., S.I., T.I.**

Patron-in-Chief,

International Center for Chemical and Biological Sciences, H.E.J Research Institute of Chemistry, Dr. Panjwani Center for Molecular Medicine and Drug Research, University of Karachi, Karachi. 75270. Pakistan.

Tel: (92-21) 34824924, 34824925  
Fax: (92-21) 4819018-9  
E-mail: ibnesina@hotmail.com, aurahman786@gmail.com  
web: www.iccs.edu

**2. Prof. Dr. Mohammad Iqbal Choudhary, H.I., S.I., T.I.**

Director/Supervisor,  
International Center for Chemical and Biological Sciences, H.E.J Research Institute of  
Chemistry, Dr. Panjwani Center for Molecular Medicine and Drug Research, University of  
Karachi, Karachi. 75270. Pakistan.  
Tel: (92-21) 34824924, 34824925  
Fax: (92-21) 4819018-9  
E-mail: hej@cyber.net.pk, iqbal.choudhary@iccs.edu  
web: www.iccs.edu

**3. Prof. Dr. Paul R. Hanson**

Supervisor,  
Professor, Department of Chemistry, University of Kansas and The Center for Chemical  
Methodology and Library Development at the University of Kansas, 1501 Wakarusa Drive,  
Lawrence, KS 66045, USA.  
Tel: +1-785-864-3094  
E-mail: phanson@ku.edu