

SOHAIL SHAHZAD

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Pakistan. 57200

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Nationality: Pakistani



Research Interests:

- *Skin tissue engineering for burn patients*
- *Synthesis of smart anti-bacterial wound dressings*
- *Controlled and targeted drug delivery*
- *Development of novel biomaterials devising new cross-linking strategies*
- *Synthesis of novel organo-soluble chitosan derivatives and their further utilization in various biomedical fields*
- *Production of pro-angiogenic hydrogels for promoting tissue healing*
- *Organic synthesis.*
- *Different kind spectroscopic data related studies and appliance.*
- *Discovery and application of organic molecules in biology.*

Training & Research Experience:

- Experimental biological studies (*Anti-oxidant, Anti-bacterial, Anti-fungal & Urease inhibition*) of synthesized molecules.
- Various Cell Culturing Assays including Neutral Red Dye and MTT.
- Chick Chorionic Allantoic Membrane (CAM) Assay for Angiogenesis.
- Blood clotting experiments
- Controlled Drug Release Analysis
- Solution Absorption Studies.
- Determination of Mechanical Strength
- Scanning Electron Microscope (SEM) Analysis
- Enzyme-linked Immunosorbent Assay (ELISA) Analysis
- Organic synthesis, purification, characterization through spectroscopy & spectrometry including NMR, FT-IR, XRD, TGA/DSC, GC-MS, GC-FID, GC-NPD, Micro plate reader.
 - ❖ **PhD.,** Dissertation Title
 - Composite Electrospun Nanofibers Mats and Hydrogels for Controlled Drugs Release and Related Biomedical Applications
 - ❖ **M.Phil.,** Dissertation Title
 - Synthesis and Urease Inhibition Studies Benzoic Acid Based Barbiturates and Thiobarbiturates
 - ❖ **B.S.,** Dissertation Title
 - A Study of Amide Synthesis using Carboxylic Acids.

Fellowship & Academic accomplishment:

- Indigenous Fellowship, Higher Education Commission of Pakistan.
- 2nd Position in M.Phil.
- Throughout 1st Div. in academic career.

Education & Professional Experience:

2016-To date Junior Forensic Scientist.

Toxicology Section, Punjab Forensic Science Agency,
Lahore.

2010-2013 Ph.D in Organic Chemistry

Department of Chemistry, *The Islamia University of Bahawalpur.*

Advisor: *Prof. Dr. Abdul Rauf* and Associate Professor *Dr. Muhammad Yar*

2008-2010 M. Phil in Organic Chemistry.

Department of Chemistry, *The Islamia University of Bahawalpur.*

Advisor: *Prof. Dr. Abdul Rauf*

2003-2007 B.S in Chemistry.

Department of Chemistry,

Bahauddin Zakariya University Multan.

Advisor: *Prof. Dr. Farzana Mahmood.*

Courses taught at Undergraduate level:

- Organic chemistry
- General Chemistry

Membership & Affiliation:

- Life member: *The Chemical Society of Pakistan.*
- Regular Member: The International Association of Forensic Toxicologists (TIAFT)
- National Academy of Young Scientists Pakistan.

Certification & Training

April 2014 One month induction training of directorate of staff development Lahore.

January 2016 Six month training at Toxicology Section Punjab Forensic Science Agency,
Lahore.

April 2017 Participated in the seminar on “Column Clinic Road Show 2017” held by H.A.
Shah & Sons & Agilent Technologies on 25-04-2017.

Conferences & Seminars

- Participated in poster competition at 3rd International Symposium on Biomedical Materials: Recent Advances and Challenges December 18-20, 2012.

Publications:

1. Muhammad Yar, **Sohail Shahzad**, Lubna Shahzadi, Sohail Anjum Shahzad, Nasir Mahmood, Aqif Anwar Chaudhry, Ihtesham ur Rehman, Sheila MacNeil, Heparin binding chitosan derivatives for production of pro-angiogenic hydrogels for promoting tissue healing, *Materials Science and Engineering C*, 74 (2017) 347-356. **(I.F 5.080)**
2. **Sohail Shahzad**, Lubna Shahzadi, Nasir Mahmood, Saadat Anwar Siddiqi, Abdul Rauf, Faisal Manzoor, Aqif Anwar Chaudhry, Ihtesham ur Rehman, Muhammad Yar, A new synthetic methodology for the preparation of biocompatible and organo-soluble barbituric- and thiobarbituric acid based chitosan derivatives for biomedical applications, *Materials Science and Engineering C*, 66 (2016) 156-163. **(I.F 5.080)**
3. Muhammad Yar, **Sohail Shahzad**, Saadat Anwar Siddiqi, Nasir Mahmood, Abdul Rauf, Muhammad Sabieh Anwar, Aqif Anwar Chaudhry, Ihtesham ur Rehman, Triethyl orthoformate mediated a novel crosslinking method for the preparation of hydrogels for tissue engineering applications: characterization and *in vitro* cytocompatibility analysis, *Materials Science and Engineering C*, 56 (2015) 154-164. **(I.F 5.080)**
4. Abdul Rauf, **Sohail Shahzad**, Marek Bajda, Muhammad Yar, Faiz Ahmed, Nazar Hussain, Muhammad Nadeem Akhtar, Ajmal Khan, Jakub Jonczyk, Design and synthesis of new barbituric- and thiobarbituric acid derivatives as potent urease inhibitors: Structure activity relationship and molecular modeling studies, *Bioorganic & Medicinal Chemistry* 23, (2015) 6049-6058. **(I.F 2.881)**
5. **Sohail Shahzad**, Nasir Mahmood, Muhammad Yar, Abdul Rauf, Muhammad Sabieh Anwar, Saadat Anwar Siddiqi, Zafar-ul-Ahsan Qureshi, Shahida Afzaal, Chitosan-based electrospun nanofibrous mats, hydrogels and cast films: novel anti-bacterial wound dressing matrices, *Journal of Materials Science: Materials in Medicine* 26 (2015) 1-12. **(I.F 2.448)**
6. Muhammad Yar, Marek Bajda, **Sohail Shahzad**, Nisar Ullah, Mazhar Amjad Gilani, Muhammad Ashraf, Abdul Rauf, Ayesha Shaukat, Organocatalyzed solvent free an efficient novel synthesis of 2,4,5-trisubstituted imidazoles for α -glucosidase inhibition to treat diabetes, *Bioorganic Chemistry*, 58 (2015) 65-71. **(I.F 3.231)**