

Dr. Ayaz Anwar

Position: Research Fellow  
E-Mail: ayazanwar@sunway.edu.my  
Office Extension: 7189



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**Education:**

Ph.D degree, University of Karachi, Pakistan

Master degree, University of Karachi, Pakistan

Bachelor degree, University Karachi, Pakistan

**Teaching:**

Organic Chemistry

Medicinal Chemistry

Nanomedicines

**Brief Employment History:**

February 2017-To date: Postdoc Research Fellow (At Sunway University, Subang Jaya-47500, Selangor, Malaysia)

July 2011-To December 2016: 5 years research experience in Supramolecular, Heterocyclic and Nanomaterials Chemistry (During Ph. D. at H. E. J. Research Institute of Chemistry, University of Karachi, Karachi-75270, Paksitan).

January 2011-July 2011 6 months research experience in total synthesis of a Natural Product (As research assistant on HEC Pakistan funded project at H. E. J. Research Institute of Chemistry, University of Karachi, Karachi-75270, Paksitan).

**Research Interests:**

Nanomaterials synthesis and their biomedical applications, Organic synthesis, Catalysis, Supramolecular Chemistry

**Selected Publications:**

1. **Ayaz Anwar**, Farid Ahmed, Sami uz Zaman, and Muhammad Raza Shah. "Synthesis of molecular imprinted polymer for the recognition and removal of Cephadrine." Sensor Letters 15, (2017): 32-36.

2. Salwa Mansur Ali, Ruqaiyyah Siddiqui, Seng Kai Ong, Muhammad Raza Shah, **Ayaz Anwar**, Peter J. Heard, and Naveed Ahmed Khan. "Identification and characterization of antibacterial compound(s) of cockroaches (*Periplaneta americana*).” *Applied Microbiology and Biotechnology* 101, (2017): 253-86.
3. **Ayaz Anwar**, Muhammad Raza Shah, Shahnaz Pir Muhammad Saifullah Afridi, and Khurshid Ali. "Thio-pyridinium capped Silver nanoparticle based supramolecular recognition of Cu(I) in real samples and T-lymphocytes." *New Journal of Chemistry* 40, (2016): 6480-86.
4. Yousuf Aqeel, Ruqaiyyah Siddiqui, **Ayaz Anwar**, Muhammad Raza Shah, and Naveed Ahmed Khan. "Gold nanoparticles conjugation enhanced anti-Acanthamoebic effects of Chlorhexidine." *Antimicrobial Agents and Chemotherapy* 60, (2016): 1283-88.
5. Patrick H. Woodworth, Massimo F. Bertino, Afifa Ahmed, **Ayaz Anwar**, M. Raza Shah, Dayanjan S. Wijesinghe, and John M. Pettibone. "Synthesis of Gold clusters with flexible and rigid diphosphine ligands and the effect of spacer and solvent on the size selectivity.” *Nano-Structures and Nano-Objects* 7, (2016): 32-40.
6. Ayaz Ahmed, Anum Khalid Khan, **Ayaz Anwar**, and Muhammad Raza Shah. "Biofilm inhibitory effect of Chlorhexidine conjugated Gold Nanoparticles against *Klebsiella Pneumoniae*.” *Microbial Pathogenesis* 98, (2016): 50-56.
7. Farid Ahmed, **Ayaz Anwar**, Muhammad Raza Shah, and Sami uz Zaman. "Preparation and characterization of molecular imprinted polymer for the detection and selective removal of Albendazole from aqueous solution.” *Sensor Letters* 14, (2016): 1089-93.
8. Yousuf Aqeel, Ruqaiyyah Siddiqui, **Ayaz Anwar**, Muhammad Raza Shah, Shahrukh Khoja, and Naveed Ahmed Khan. "Photochemotherapeutic strategy against *Acanthamoeba* infections." *Antimicrobial Agents and Chemotherapy* 59, (2015): 3031-41.
9. **Ayaz Anwar**, Abdul Hameed, Shahida Perveen, Maliha Uroos, Muhammad Iqbal Choudhary, and Fatima Zahra Basha. "1, 1-Diphenyl-2-Picrylhydrazyl radical scavenging activity of novel Dihydropyridine derivatives." *European Journal of Chemistry* 5, (2014): 189-91.
10. Abdul Hameed, **Ayaz Anwar**, Khalid Mohammed Khan, Rizwana Malik, Fernaz Shahab, Sadia Siddiq, Fatima Zahra Basha, and Muhammad Iqbal Choudhary. "Urease inhibition and anticancer activity of novel polyfunctional 5,6-Dihydropyridine derivatives and their structure-activity relationship." *European Journal of Chemistry* 4, (2013): 49-52.

11. Abdul Hameed, **Ayaz Anwar**, Sammer Yousaf, Khalid Mohammed Khan, and Fatima Zahra Basha. "Tetra-N-butylammonium fluoride-mediated dimerization of (Methylbenzylidene) malononitriles to form polyfunctional 5,6-Dihydropyridines derivatives under solvent-free conditions." *European Journal of Chemistry* 3, (2012): 179-85.
12. Ayaz Anwar, Sadia Khalid, Samina Perveen, Shakil Ahmad and Muhammad Raza Shah. "A new approach to the synergistic effect of DMAP thioacetate coated Gold nanoparticles on the antibacterial properties of Pefloxacin." *Ecotoxicology and Environmental Safety* (Accepted).
13. **Ayaz Anwar**, Aaliya Minhaz, Syed Saad Hussain, Shabana Usman Simjee and Muhammad Raza Shah. "Pyrazinium thioacetate capped Gold nanoparticles based Fe(III) sensing and its application in real samples and as Fe(III) marked anti-proliferating agent in Human Neuroblastoma cells" *Sensors and Actuators: B* (Under review).
14. Dania Ahmed, **Ayaz Anwar**, Anum Khalid Khan, Ayaz Ahmed and Muhammad Raza Shah. "Size selectivity in antibiofilm activity of Diphenylphosphino propanoic acid coated Gold nanoclusters and nanoparticles against *S. Aureus* and *S. Mutans*" *Colloids and Surfaces: B* (Under review).