

# MD SALAUDDIN AHMED

Jonesboro, AR 72401 • (786) 484-6559 • mdahmed@astate.edu • LinkedIn

---

## EDUCATIONAL QUALIFICATION

---

- 2012–2018 Ph.D. Chemistry (Organic Polymer Chemist)  
Florida International University, Miami, FL, USA
- 2012–2016 Masters in Chemistry  
Florida International University, Miami, FL, USA
- 2010–2012 Masters in Applied Chemistry and Chemical Engineering  
University of Dhaka, Dhaka, Bangladesh
- 2005–2010 BSc in Applied Chemistry and Chemical Engineering  
University of Dhaka, Dhaka, Bangladesh

## SUMMARY OF SKILLS

---

- |                                 |                           |
|---------------------------------|---------------------------|
| ⇒ Classroom management          | ⇒ Lesson plan development |
| ⇒ Online instruction experience | ⇒ Multimedia instruction  |
| ⇒ Social media savvy            | ⇒ Learning strategies     |
| ⇒ Goal Setting                  | ⇒ Testing and orientated  |
| ⇒ Sapling learning              | ⇒ Canvas and Blackboard   |
| ⇒ Curriculum design             | ⇒ Large group teaching    |

### **08/2019-Current: Instructor, Chemistry at Arkansas State University**

- Supervising and instructing Organic Chemistry I & II
- Designing and preparing lab, lab document and experimental procedure for Organic Chemistry labs
- Ensuring safe use of fume hood, handling chemicals, maintaining safety and chem inventory

### **06/2019-08/2019: Adjunct Faculty, Chemistry at Florida International University.**

- Conduct lecture on Organic Chemistry I (CHM 2210) in summer B 2019, class size 102 students
- Utilize variety of technologies and instructional methodologies such as Sapling, Canvas learning system to keep courses fresh and engaging
- Work with individual students to improve understanding and course grades
- Help students to develop talent through range of exercises readings and discussions
- Maximized in-class time with thought-provoking discussions

### **05/2019-08/2019: Adjunct Faculty, Chemistry at Miami Dade College, North campus.**

- Deliver lecture on Organic Chemistry I (CHEM 2210) in summer 2019, class size 40-50 students
- Prepare exams, quizzes, home works for the section teaching
- Supervise a lab session on Chemistry survey (1033L)
- Helping students with course and lab materials by serving office hours (3 hours) per week
- Support Freshman students in Chemistry survey and other beginning courses

### **8/2018-05/2019: Visiting Assistant Professor at West Virginia Wesleyan College.**

- Instructed lectures and labs on Organic Chemistry I & II (CHEM 223L, 222, 224L), class size 30-40 students
- Supervised labs on General Chemistry I & II (CHEM 133L, 134L), class size 30-40 students
- Responsible for educating students including lectures, syllabus and curriculum design and exam creation

- Supervised four senior undergraduate students as a principle investigator to complete a research project, prepare and to present a poster in Fall 2018 in the departmental seminar.
- Conducted a seminar class on Polymer in Spring 2019
- Designed and prepared an organic chemistry II lab manual for lab experiment
- Participate in new student recruitments program by visiting high school with a group of faculty members

**5/2018-8/2018: Visiting Postdoctoral Associate at Florida International University.**

- Synthesis and characterization of various polymeric materials for gene delivery, drug delivery and antimicrobial purpose
- Training junior graduate student to develop synthetic skills
- Lab managing

**8/2012-4/2018: Teaching Assistant at Florida International University.**

- Instructed organic chemistry I & II recitation classes facilitated students with course material explanation and problem-solving sections
- Conducted pre-laboratory discussion and laboratory sessions of organic and general chemistry
- Explained and enforced laboratory safety procedures during the experiments
- Educated all students in safe handling of laboratory hazardous chemicals and fume hoods

**2/2010-6/2010: High School Teacher.**

- Delivered lectures on high-school science courses (grade 9-12) in a class of 20-30 students. Assessed students' progress via test and homework assignments
- Helped students to involve in extra-curricular activities including quizzes, speech contest, sports activities and others as required by the school.

**RELEVANT SKILLS**

---

- Highly experienced in delivering lecture on Organic Chemistry I & II in College and University level undergraduate program
- Expertise in instructing and supervising Organic and General Chemistry labs
- Expertise in use of online learning system such as Sapling, Canvas and Blackboard

**RESEARCH INTEREST**

---

- Synthesis of guanyl(urea) functionalized conjugated polymeric materials for gene delivery, drug delivery, and for cellular imaging
- Development a new polymeric method and to prepare/synthesize a novel cationic polymeric material to overcome antimicrobial resistance
- Modification of functional group in a conjugated polymer to prepare a target specific diverse functionalized, high molecular weight, fluorescent conjugated polymer for primary cell (NHBE) transfection

**ACADEMIC PUBLICATIONS AND PATENTS**

---

- **Md Salauddin Ahmed**, Rajib Dutta, Prakash Manandhar, Hoshang Jehangir Unwalla and Joong Ho Moon, Guanylurea-functionalized conjugated polymer enables RNA interference in ex vivo human airway epithelium. *Chem. Com.* **2019**, 55, 7804-7807. 10.1039/C9CC02856K
- **Ahmed, Md Salauddin.**; Annamalai, A.; Xuerong, Le.; Seddek, A.; Teng, P.; Tse-Dinh, YC.; Moon, J. H., Synthesis of Antimicrobial Poly(guanylurea)s. *Bio Conjugate Chem.* **2018**, 29, 1006-1009. DOI: 10.1021/acs.bioconjchem.8b00057.
- Chen, F.; Manandhar, P.; **Ahmed, Md Salauddin.**; Chang, S.; Panday, N.; Zhang, H.; Moon, J. H., He, J. Extracellular Surface Potential Mapping by Scanning Ion Conductance Microscopy Revealed Transient Transmembrane Pore Formation Induced by Conjugated Polymer Nanoparticles. *Macromol.Biosci.* **2018**, 1800271, DOI: 10.1002/mabi.201800271

- **Ahmed, Md Salauddin.**; Moon, J. H., Synthesis of Fluorescent Phenyleneethynylene Trimer-Containing Polymer. Poster Presentation, Division of Polymeric Materials Science and Engineering, Spring 2017 Meeting, San Francisco, CA.
- Moon, J. H., **Ahmed, Md Salauddin.** Modulated Guanidine-Containing Polymers or Nanoparticles. **US Patent No.: US 16/220, 801, 2019.**
- Moon, J. H., **Ahmed, Md Salauddin.** Antimicrobial Poly(guanylurea)s. **US Patent No.: US 10,017,462 B1, July 10, 2018.**