

Pooja Ahuja, Ph.D.

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EDUCATION

- **Ph.D. Chemistry** (GPA 3.5) Aug 2011 - May 2016
University of Texas at Arlington (UTA)
Department of Chemistry and Biochemistry
Thesis: Rhenium (I) complexes of tetraazatetrapyrrodo-pentacene (TATPP): Synthesis, Characterization, Reactivity, Anticancer Potential and Luminescent probes to determine Cellular Localization
Advisor: Frederick M Macdonnell, Ph.D. (Chair of Department)
- **Ph.D. Candidate, Soil and Water Science** (GPA 4.0) Aug 2010 - May 2011
University of Florida, Gainesville (UF)
Department of Soil and Water Sciences
Thesis: Biochar as effective low cost sorbent for common environmental pollutants
Advisor: Amy Shober, Ph.D.
- **MS Chemistry** Jul 2002 – Jun 2004
Gurukula Kangri University, India (GKU),
Department of Chemistry
Area of Specialization: Commercial Methods of Chemical Analysis
Project Title: *Toxic Elements Assessment in Fly Ash using Atomic Absorption Spectrophotometer*
Advisor: Anjali Goel. Ph.D.
- **B.S Science** Jul 1999 - Jun 2002
Chaudhary Charan Singh University, India (CCS)

SCIENTIFIC PUBLICATIONS AND PRESENTATIONS

- **Pooja Ahuja**, Adam. S. Dayoub., Frederick M. Macdonnell., 'Tracking the cellular distribution and determining the cellular targets of heterobimetallic Ru(II)-Re(I)tatpp complex. *Manuscript in preparation*
- Le, V. H.; McGuire, M. R.; **Ahuja, P.**; MacDonnell, F. M.; Lewis, E. A., Thermodynamic Investigations of [(phen)₂Ru(tatpp)Ru(phen)₂]⁴⁺ Interactions with B-DNA. *The Journal of Physical Chemistry B* 2015, 119 (1), 65-71.
- **Ahuja, Pooja**; Macdonnell, Frederick M., "Re(I) polypyridyl complexes in chemotherapy". *Abstracts of Papers, 249th ACS National Meeting & Exposition, Denver, CO, United States, March 22-26, 2015*, p. BIOL.

- **Ahuja, Pooja**; Singh Shreeyukta; Macdonnell, Frederick M., "The surprising reactivity of Re(I) based anticancer agents of tetraazatetrapyridopentacene (tatpp) ligand as compared to their Ru(II) analogues". *Abstracts, 70th Southwest Regional Meeting of the American Chemical Society, Fort Worth, TX, United States, November 19-22, 2014* p. SWRM. (Manuscript in preparation)
- **Ahuja, Pooja**; Macdonnell, Frederick M., "Synthesis and DNA cleavage activity of tetraazatetrapyridopentacene (tatpp) rhenium(I) complexes". *Abstracts of Papers, 247th ACS National Meeting & Exposition, Dallas, TX, United States, March 16-20, 2014*, p. INOR.
- **Ahuja, Pooja**; Singh Shreeyukta; Macdonnell, Frederick M., "Synthesis and characterization of Rhenium(I) complexes of 9,11,20,22-tetraazatetrapyridopentacene (tatpp)". *Abstracts, 69th Southwest Regional Meeting of the American Chemical Society, Waco, TX, United States, November 16-19, 2013* p. SWRM.

AWARDS AND FELLOWSHIPS

- University of Florida, Gainesville, "**Graduate School Alumni Fellowship (2010-2014)**" - A merit based competitive fellowship awarded to only two strongest applicants in each department every year
- University of Texas, Arlington "**Graduate Research Assistantship (Jun 2014-May 2016)**" including STEM Fellowship
- University of Texas, Arlington, "**Enhanced Graduate Teaching Assistantship (Aug 2011-May 4)**" including STEM Fellowship - A merit based competitive fellowship awarded to only two strongest applicants in the Department of Chemistry at UTA every year. Provides excellent stipend and full tuition coverage
- University of Texas, Arlington "**Travel Award Graduate Student Senate (2015)**" - a competitive Travel Award (TAGSS) given to Senate members who go above and beyond in their service to Graduate Student Senate and its supporting organizations. Awards upto \$750 for international conference and \$500 for national oral and poster conference presentations
- University of Texas, Arlington "**I-Engage mentoring fellowship (Jun 2013 – Aug 2013)**" - a competitive fellowship offered to selected graduate students to gain teaching and mentoring experience by serving as a research mentor to a UT Arlington undergraduate over summer semester. The mentor writes a research proposal at the beginning and mentee presents the background and findings of the research as a write-up at the conclusion of the semester. Awards graduate students stipend of \$400 and undergraduates receive full scholarship for 3 semester credit hours of independent study

- University of Texas, Arlington “**I-Engage mentoring fellowship (Jun 2014 – Aug 2014)**”
- University of Texas, Arlington “**I-Engage mentoring fellowship (Jun 2015 – Aug 2015)**”
- University of Florida, Gainesville “**Outstanding Achievement Award (May 2011)**” - award for maintaining a GPA of 4.0 through entire school year
- Gurukula Kangri University, Hardwar, India “**Qualified All India Entrance Examination (2002) for Master’s program in Chemistry with 26th rank (99.0 percentile)**”

RESEARCH EXPERIENCE (UTA)

Aug 2011 - May 2016

- Designed, synthesized and characterized a wide variety of Ruthenium (II) and Rhenium(I) polypyridine complexes as potential cancer therapeutics
- Purified and characterized novel analogues using HPLC, UV/Vis, NMR, IR, Mass Spectroscopy and CHN analysis
- Studied the anticancer potential of newly synthesized metallodrugs using:
 - ✓ DNA Cleavage Gel Electrophoresis
 - ✓ In vitro MTT cellular proliferation and viability assay to study the effect of test drug against various cancer and normal cell lines
 - ✓ In vivo Maximum Tolerable Dose (MTD) assay to determine drug toxicity, and renal clearance in mice
 - ✓ Fluorescence spectroscopy to determine cellular localization and uptake in H358 lung cancer cell line

WORK EXPERIENCE

- **Director of Innovation Sciences** Aug 2016 - Mar 2017
LEIO Coporation, Coppell, Texas (www.leiocorp.com) - Matured clinical research between LEIO Corporation and UT Austin, provided scientific write-ups, literature review, protocols and advising
- **Research Assistant** Jun 2014 - May 2016
Department of Chemistry and Biochemistry, University of Texas at Arlington (www.uta.edu)- My research provided insight into the structure activity relationship of potential metallodrugs and how subtle changes can alter the reactivity and efficacy

- **Enhanced Graduate Teaching Assistant** Aug 2011 - May 2014
Department of Chemistry and Biochemistry, University of Texas at Arlington (www.uta.edu)-
Earned the best of teaching evaluations and highly admired as TA
- **Quality Control Chemist** Aug 2004 – Sept 2006
Lotus Beauty Care Products Private Ltd, Hardwar, India -a subsidiary unit of Clarion
Cosmetics (www.clarioncosmetics.com) - Responsible for QC testing, review and
approval, internal and external audits, developing testing protocols, overall handling and
management

ORGANIZATIONS

- Secretary, Chemistry Graduate Student Senate (2013-2014)
- Member, Chemistry Graduate Student Senate (2011-2016)
- Member, American Chemical Society (2013-2014)