

POSTERS AND PRESENTATIONS:

(Undergraduate authors are underlined and undergraduate presenters are asterisked)

RECENT PRESENTATIONS (Oral)

UVa-Wise

1. **Beckford, F.A.**, Shylene. A. Scott, Kinsey Hall, Samantha Smith, "Exploring the coordination chemistry of curcuminoids: Synthesis and biophysical reactivity." Presentation at the 2013 Virginia Academy of Science, Virginia Tech, May 2013.
2. **Beckford, F.A.**, Shylene Scott, Jonathan Dannatt, Raoul Noubissi-Siewe, Eamon Olwell. "Curcuminoids as ligands in half-sandwich organometallic ruthenium piano-stool complexes: Synthesis and biophysical reactivity". Presentation at the 245th National Meeting of the American Chemical Society, New Orleans, **April 2013** (Paper #: INOR 21)
3. **Beckford, F.A.**, "Developing Pharmaceutical Agents: Metal Complexes With Thiosemicarbazones As Ligands". Presented North East Tennessee Section of the American Chemical Society, February 28, **2013**, Kingsport, TN. (Invited presentation)

Lyon College

4. **Beckford, F.A.**, Marc-Andre LeBlanc*, Antonio Gonzalez-Sarrias, Navindra P Seeram. "Synthesis, biophysical reactivity and medicinal evaluation of a series of half-sandwich ruthenium complexes with a 1,4,7-trithiacyclononane face-cap." Presentation at the 243rd National Meeting of the American Chemical Society, San Diego, March **2012**. (Paper #: INOR 13)
5. **Beckford, F.A.**, P. Canisius Mbarushimana, Alyssa M Stott, Marc-Andre LeBlanc, Antonio Gonzalez-Sarrias, Navindra P Seeram. "Half-sandwich ruthenium complexes with thiosemicarbazones ancillary ligands." Presentation at the 243rd National Meeting of the American Chemical Society, San Diego, March **2012**. (Paper #: INOR 14)
6. **Beckford, F.A.** "Towards the development of metal complexes potentially useful as therapeutic agents." Presented at the **2011** Arkansas INBRE Research Conference, University of Arkansas, Fayetteville. (Invited presentation).
7. **Beckford, F.A.** and Alyssa Stott*. "Benzene-ruthenium organometallic complexes: synthesis, characterization and biophysical reactivity". Presented at the **2011** Arkansas INBRE Research Conference, University of Arkansas, Fayetteville. (Paper #: C11-U. This paper was also presented in the poster format)
8. **Beckford, F.A.** and Marc-Andre LeBlanc*. "Half-sandwich ruthenium(II) complexes with a 1,4,7-trithiacyclononane face and ancillary thiosemicarbazone ligands; chemical and biochemical reactivity". Presented at the **2011** Arkansas INBRE Research Conference, University of Arkansas, Fayetteville. (Paper #: C19-U. This paper was also presented in the poster format. **This poster won first place in the undergraduate chemistry division**).
9. **Beckford, F.A.** and P. Canisius Mbarushimana*. "A comparison of half-sandwich ruthenium-thiosemicarbazone complexes with [9]aneS₃ or p-cymene facecaps". Presented at the 2011 Arkansas INBRE Research Conference, University of Arkansas, Fayetteville. (Paper #: C13-U)
10. **Beckford, F.A.**, Alyssa Brock, Vernon Crowell, Jacob Didion, Diedra Dourth, Gabriel Leblanc, Michael Shaloski, Jeffrey Thessing, Liya Li, Antonio González-Sarrias, Navindra P Seeram.

“Investigations of ruthenium, gallium and copper complexes that contain thiosemicarbazone ligands as medicinal agents.” Presentation at the 241st National Meeting of the American Chemical Society, Anaheim, March **2011**. (Paper #: INOR 129)

11. **Beckford, F.A.**, “Transition Metal-thiosemicarbazone Complexes as Medicinal Agents”. Presentation at the 240th National Meeting of the American Chemical Society, Boston, MA., August **2010**. (Paper #: INOR 27)
12. **Beckford, F.A.**, Sarah Dunkerson, Michael Shaloski, Gabriel Leblanc, Jeffrey Thessing, Navindra Seeram and Liya Li. “*The bioorganometallic chemistry of thiosemicarbazones.*” Presentation at the 237th National Meeting of the American Chemical Society, Salt Lake City, March **2009**. (Paper #: INOR 587)
13. **Beckford, F.A.** and Michael Shaloski. “*Synthesis of $[(\eta^6\text{-}p\text{-cymene})\text{Ru}(9\text{-ATSC})\text{Cl}]\text{PF}_6$ and its interaction with human serum albumin (9-ATSC = 9-anthraldehyde thiosemicarbazone).*” Presentation at the 92nd Annual Meeting of the Arkansas Academy of Science, Clarksville, **2009**.
14. **Beckford, F.A.**, Dunkerson, S., Shaloski, M., Leblanc, G., and Thessing, J. “*The ruthenium organometallic chemistry of thiosemicarbazones. Synthesis, characterization and reactivity of $[(\text{CH}_3\text{C}_6\text{H}_5)\text{RuCl}(9\text{-anthraldehyde thiosemicarbazone})]^+$.*” Presentation at the 64th Southwest Regional Meeting of the American Chemical Society, Little Rock **2008**. (Paper #: 273)
15. **Beckford, F.A.**, Jeffrey Thessing*, Michael Shaloski, and Christopher Robertson. “*Synthesis, characterization and reactivity of copper and ruthenium complexes of a series of thiosemicarbazones derived from piperonal.*” Presentation at the 64th Southwest Regional Meeting of the American Chemical Society, Little Rock **2008**. (Paper #: 354)
16. **Beckford, F.A.**, Michael Shaloski*, Jeffrey Thessing, and Gabriel Leblanc. “*Microwave synthesis of mixed ligand diimine-thiosemicarbazone complexes of ruthenium(II).*” Presentation at the 64th Southwest Regional Meeting of the American Chemical Society, Little Rock **2008**. (Paper #: 353)
17. **Beckford, F.A.**, Jeffrey Thessing*, Chris Robertson and Michael Shaloski, “*Synthesis, characterization and cytotoxicity of copper and ruthenium complexes of a series of thiosemicarbazones derived from piperonal.*” Presented at the 2008 Arkansas INBRE Research Conference, University of Arkansas, Fayetteville, Nov. 7 – 8. (Paper #: C37-U. **This presentation won first place in the Chemistry and Biochemistry oral section**)
18. **Beckford, F.A.**, Ryan Harness and Christopher Robertson. “*A synthetic and spectroscopic investigation of the thiosemicarbazone from p-dimethylaminobenzaldehyde*”. Presentation at the 92th Annual Meeting of the Arkansas Academy of Science, Henderson State University, April **2008**.
19. **Beckford, F.A.** and Amon Holt “*Synthesis, Characterization, and Antimicrobial Activity of Novel Thiosemicarbazones and Their Transition Metal Complexes*”. Presentation at the 90th Annual Meeting of the Arkansas Academy of Science; Lyon College, April **2006**.
20. **Beckford, F.A.**, Danielle Rinke and Valbona Bashari. “*Synthesis and Biological Activity of Organometallic Ruthenium Complexes*”. Presentation at the 61st Southwest and 57th Southeast Joint Regional Meetings of the American Chemical Society, Memphis, November **2005**.

RECENT PRESENTATIONS (Posters)

UVa-Wise

1. **Beckford, F.A., Shylene Scott, Kinsey Hall***. "Synthesis, characterization and initial biophysical reactivity of $[(\eta^6\text{-C}_6\text{H}_6)\text{Ru}(\text{curcuminoid})\text{Cl}]$ complexes". Presentation at the 245th National Meeting of the American Chemical Society, New Orleans, **April 2013** (Paper #: CHED 700)
2. **Beckford, F.A., Shylene. A. Scott, Kinsey Hall, Samantha Smith***, "Synthesis, characterization, and initial biophysical reactivity of $[\eta^6\text{-C}_6\text{H}_6)\text{Ru}(\text{curcuminoid})\text{Cl}]$ complexes". Presentation at the 2013 joint University of Virginia's College at Wise and Emory and Henry College Undergraduate Research Symposium.

Lyon College

3. **Beckford, F.A., Shylene Scott*, Jonathan Dannatt*, Raoul Noubissi-Siewe*, and Eamon Olwell***. "Synthesis and Initial Biochemical Study of Organometallic Ruthenium Complexes of Curcuminoids". Presented at the Arkansas INBRE Research Day, University of Arkansas for Medical Sciences, July 27, **2012**.
4. **Beckford, F.A., P. Canisius Mbarushimana***, Antonio Gonzalez-Sarrias, Navindra P Seeram. "Comparison of half-sandwich ruthenium-thiosemicarbazone complexes with $[9]\text{aneS}_3$ or *p*-cymene face-caps." Presentation at the 243rd National Meeting of the American Chemical Society, San Diego, March **2012**. (Paper #: INOR 456)
5. **Beckford, F.A., Alyssa M Stott***, Antonio Gonzalez-Sarrias, Navindra P Seeram. "Benzene-ruthenium organometallic complexes: Synthesis, characterization, and biophysical reactivity." Presentation at the 243rd National Meeting of the American Chemical Society, San Diego, March **2012**. (Paper #: INOR 457)
6. Justin R. Moreira*, Alvin A. Holder, Rosella M. Taylor, Rodney Ballard, Antonio Gonzalez-Sarrias, Tiffany B. Edwards, Navindra Seeram and **Floyd A. Beckford**. "A Novel Chemotherapeutic Agent of Copper(II) With a Thiosemicarbazone as Ligand: Structural and *in vitro* Studies". Presentation at the Annual Biomedical Research Conference for Minority Students, St. Louis, November **2011**.
7. **Beckford F.A.** "In pursuit of ruthenium complexes that are suitable for use as pharmaceutical agents." Presented at the 2011 Southeast INBRE Regional Conference, New Orleans, LA, Sept. 22-24. (Paper #: CN4)
8. **Beckford, F.A, and Alyssa (Brock) Stott***. "Synthesis, Characterization and Biophysical Reactivity of Benzene-Ruthenium Thiosemicarbazone Half-Sandwich Complexes". Presented at the Arkansas INBRE Research Day, University of Arkansas for Medical Sciences, July 27, **2011**.
9. **Beckford, F.A, and Marc-Andre LeBlanc***. "Half-sandwich ruthenium(II) complexes with a 1,4,7-trithiacyclononane face and ancillary thiosemicarbazone ligands". Presented at the Arkansas INBRE Research Day, University of Arkansas for Medical Sciences, July 27, **2011**.
10. **Beckford, F.A, Alyssa Brock, Antonio Gonzalez-Sarrias, Navindra P. Seeram.** "Synthesis, characterization, and biological evaluation of semicarbazone and thiosemicarbazone complexes of gallium." Presentation at the 241st National Meeting of the American Chemical Society, Anaheim, March **2011**. (Paper #: CHED 663)

11. **Beckford, F.A.**, Jacob Didion, Vernon Crowell, Antonio Gonzalez-Sarrias, Navindra P Seeram. *“Biological evaluation of ferrocenyl-ruthenium complexes and their evaluation as potential human topoisomerase II inhibitors.”* Presentation at the 241st National Meeting of the American Chemical Society, Anaheim, March **2011**. (Paper #: CHED 747)
12. **Beckford, F.A.**, Marc-Andre Leblanc, Gabriel Leblanc, Canisius Mbarushimana, Antonio Gonzalez-Sarrias, Navindra P Seeram. *“First-row transition metal complexes of thiosemicarbazones containing extended aromatic rings”*. Presentation at the 241st National Meeting of the American Chemical Society, Anaheim, March **2011**. (Paper #: CHED 660)
13. **Beckford, F.A.**, Canisius Mbarushimana, Antonio Gonzalez-Sarrias, Navindra P Seeram, *“Synthesis, characterization, and biological evaluation of ruthenium and gallium complexes containing thiosemicarbazone ligands.”* Presentation at the 241st National Meeting of the American Chemical Society, Anaheim, March **2011**. (Paper #: CHED 659)
14. Nerissa A. Lewis, Fang Liu, Tony Magnusen, Travis Erves, Jessa Faye Arca, **Floyd A. Beckford**, Ramaiyer Venkatraman, Antonio Gonzalez Sarrias, Liya Li, Suman Parajuli, Navindra Seeram, Aimin Liu, William Jarrett, Wujian Miao, Alvin A. Holder. *“Novel chemotherapeutic agents of vanadium(IV) with thiosemithiocarbazones and Schiff bases as ligands: Structural and in vitro studies”*. Presentation at the 241st National Meeting of the American Chemical Society, Anaheim, March **2011**. (Paper #: INOR 207)
15. **Beckford, F.A.**, Jacob Didion* and Vernon Crowell. *“Mix-metal dinuclear ferrocenyl-ruthenium complexes and their evaluation as potential topoisomerase II inhibitors”*. Presented at the **2010** Arkansas INBRE Research Conference, University of Arkansas, Fayetteville. (Paper #: B16-U)
16. **Beckford, F.A.** and Alyssa Brock*. *“Synthesis and characterization of semicarbazone and thiosemicarbazone complexes of gallium”*. Presented at the **2010** Arkansas INBRE Research Conference, University of Arkansas, Fayetteville. (Paper #: C5-U. **This poster won first place in the undergraduate chemistry division**).
17. **Beckford, F.A.**, and Canisius Mbarushimana*. *“Thiosemicarbazones and their metal complexes: synthesis and characterization of ruthenium and gallium complexes”*. Presented at the **2010** Arkansas INBRE Research Conference, University of Arkansas, Fayetteville. (Paper #: C21-U)
18. **Beckford, F.A.** *“Transition metal-thiosemicarbazone Complexes as medicinal Complexes”*. Presentation at the 3rd National IDEA Symposium of Biomedical Research Excellence, Bethesda, MD, **2010**. (Poster #: 70)
19. **Beckford, F.A.**, Gabriel Leblanc, Jeffrey Thessing*, and Charles Morgan. *“The interaction of anticancer copper complexes with DNA and human serum albumin.”* Presentation at the 239th National Meeting of the American Chemical Society, San Francisco, March **2010**. (Paper #: CHED 866)
20. **Beckford, F.A.** and Vernon Crowell*. *“DNA interaction studies of binuclear ruthenium-iron thiosemicarbazone complexes.”* Presentation at the 239th National Meeting of the American Chemical Society, San Francisco, March **2010**. (Paper #: CHED 769)
21. **Beckford, F.A.** and Jason Woods*. *“Synthesis and reactivity of ruthenium(II)-dimethyl sulfoxide complexes containing ferrocenyl thiosemicarbazones.”* Presentation at the 239th

National Meeting of the American Chemical Society, San Francisco, March **2010**. (Paper #: CHED 771)

22. **Beckford, F.A.** and Diedra Dourth*. "*Synthesis and reactivity of ruthenium(II) complexes containing piperonal thiosemicarbazones.*" Presentation at the 239th National Meeting of the American Chemical Society, San Francisco, March **2010**. (Paper #: CHED 768)
23. **Beckford, F.A.***, Michael Shaloski, Jeffrey Thessing and Charles Morgan. "*Microwave synthesis of mixed-ligand diimine-thiosemicarbazone complexes of Ru(II) and their reactivity with DNA and human serum albumin.*" Presentation at the 239th National Meeting of the American Chemical Society, San Francisco, March **2010**. (Paper #: INOR 225)
24. **Beckford F.A.***, Charles Morgan and Jeffrey Thessing, "*The interaction of anticancer copper complexes with DNA and human serum albumin.*" Presented at the 2009 Southeast INBRE Regional Conference, Charleston, SC, Nov. 9-11. (Paper #: CR-P4)
25. **Beckford, F.A.** and Vernon Crowell*. "*Ruthenium(II) Complexes of Ferrocenyl Thiosemicarbazones: Synthesis, DNA Binding, and Electrochemistry*". Presented at the 2009 Arkansas INBRE Research Conference, University of Arkansas, Fayetteville
26. **Beckford, F.A.** and Diedra Dourth*. "*Synthesis and reactivity of ruthenium(II) compounds containing piperonal thiosemicarbazones*". Presented at the 2009 Arkansas INBRE Research Conference, University of Arkansas, Fayetteville.
27. **Beckford, F.A.** and Jason Woods*. "*Synthesis and Reactivity of Ruthenium(II)-Dimethyl Sulfoxide Complexes Containing Ferrocenyl Thiosemicarbazones*". Presented at the 2009 Arkansas INBRE Research Conference, University of Arkansas, Fayetteville
28. **Beckford, F.A.** and Vernon Crowell*. "*Ruthenium(II) complexes of Ferrocenyl Thiosemicarbazones: Synthesis, DNA Binding, and Electrochemistry*". Presented at the Arkansas INBRE Research Day, University of Arkansas for Medical Sciences, July 24, **2009**.
29. **Beckford, F.A.** and Diedra Dourth*. "*Synthesis and Reactivity of Ruthenium(II) Compounds Containing Piperonal Thiosemicarbazones*". Presented at the Arkansas INBRE Research Day, University of Arkansas for Medical Sciences, July 24, **2009**.
30. **Beckford, F.A.** and Jason Woods* "*Synthesis and Reactivity of Ruthenium(II) Compounds Containing Ferrocenyl Thiosemicarbazones*". Presented at the Arkansas INBRE Research Day, University of Arkansas for Medical Sciences, July 24, **2009**.
31. **Beckford, F.A.**, Michael Shaloski*, Gabriel Leblanc, Jeffrey Thessing, Liya Li and Navindra P. Seeram. "*Mixed ligand diimine-thiosemicarbazone complexes of ruthenium(II): Synthesis, biophysical reactivity and cytotoxicity.*" Presentation at the 237th National Meeting of the American Chemical Society, Salt Lake City, March **2009**. (Paper #: CHED 585)
32. **Beckford, F.A.**, Jeffrey Thessing*, Chris Robertson, Michael Shaloski, Liya Li and Navindra P. Seeram. "*Synthesis, characterization and cytotoxicity of copper and ruthenium complexes of a series of thiosemicarbazones derived from piperonal.*" Presentation at the 237th National Meeting of the American Chemical Society, Salt Lake City, March **2009**. (Paper #: CHED 633)
33. **Beckford, F.A.**, Michael Shaloski*, Gabriel Leblanc and Jeffrey Thessing, "*Microwave synthesis of mixed ligand diimine thiosemicarbazone complexes of ruthenium(II)*". Presented at the 2008 Arkansas INBRE Research Conference, University of Arkansas, Fayetteville, Nov. 7 – 8. (Paper #: C30-U)

34. **Beckford, F.A.**, and Michael Shaloski. "Synthesis of bipyridyl and phenanthroline ruthenium complexes of thiosemicarbazones and their biophysical reactivity with CT-DNA." Presented at the Arkansas INBRE Research Day, University of Arkansas for Medical Sciences, July 24, **2008**.
35. **Beckford, F.A.**, and Jeffrey Thessing*. "Synthesis and Biological Reactivity of Copper Complexes of 4-Alkyl-Substituted Thiosemicarbazones of Piperonal." Presented at the Arkansas INBRE Research Day, University of Arkansas for Medical Sciences, July 24, **2008**.
36. **Beckford, F.A.**, and Gabriel Leblanc*. "Novel thiosemicarbazones from 9-anthraldehyde and their copper and ruthenium complexes". Presentation at the 92th Annual Meeting of the Arkansas Academy of Science, Henderson State University, April **2008**.
37. **Beckford, F.A.**, Amon Holt and Robert Frank*. "Organometallic Ruthenium Complexes: potential anticancer agents." Presented at the 235th American Chemical Society National Meeting, April 6-10, **2008**, New Orleans, LA. (Paper #: CHED 1263)
38. **Beckford, F.A.**, Amon Holt and Robert Frank*. "Organometallic Ruthenium Complexes: potential anticancer agents." Presented at the Arkansas INBRE Research Day, University of Arkansas for Medical Sciences, July **2007**.
39. **Beckford, F.A.** and Amon Holt*. "An Investigation of the Thiosemicarbazone of Vitamin B₂: Coordination Chemistry and Biological Activity". Presentation at the 14th Annual Arkansas Space Grant Symposium; Arkansas Tech University, April **2006**.
40. **Beckford, F.A.** and Amon Holt. "Transition metal complexes of novel thiosemicarbazones: synthesis, characterization, and antimicrobial activity". Poster presentation at the 14th Annual Arkansas Space Grant Symposium; Arkansas Tech University, April **2006**.
41. **Beckford, F.A.** and Amon Holt. "Ruthenium complexes of novel thiosemicarbazones: synthesis, characterization, and antimicrobial activity". Presentation at the 90th Annual Meeting of the Arkansas Academy of Science; Lyon College, April **2006**.
42. **Beckford, F.A.**, and Valbona Bashari*. "Synthesis, Characterization and Biological Activity of Dithiocarbamates and Their First Row Transition Metal Complexes". Presentation at the Arkansas Undergraduate Research Conference, Henderson State University, April **2005**.
43. **Beckford, F.A.**, Danielle Rinke+ and Valbona Bashari. "Synthesis, Characterization and Biological Activity of Organometallic Ruthenium Complexes". Presentation at the 89th Annual Meeting of the Arkansas Academy of Science; Hendrix College, April **2005**.
44. **Beckford, F.A.** and Danielle Rinke*. "Synthesis, Characterization, and Coordination Chemistry of Diindolylmethanes", Book of Abstracts, Poster presentation at the 12th Annual Arkansas Space Grant Symposium, Lyon College, April **2004**.
45. **Beckford, F.A.**, Danielle Rinke* and Timothy Voris*. "Synthesis of Organometallic Ruthenium Complexes and their use as Catalysts for Transfer Hydrogenation Reactions in Ionic Liquids". Poster presentation at the 88th Annual Meeting of the Arkansas Academy of Science; Arkansas State University, April **2004**.
46. **Beckford, F.A.**, Allison, N.T., "Organometallic Ruthenium Complexes: potential anticancer agents." Presented at the Arkansas BRIN Research Day, UAMS, July **2003**.
47. **Beckford, F.A.**, Dasgupta, T. P., Maragh, P.T., and Lui, J. S. S. L. "Mechanistic studies of reactions of $[Fe_2(CN)_{10}]^{4-}$ with sulfite ions in slightly acidic aqueous solutions. Poster presentation at the 222nd ACS National Meeting, Chicago, **2001**.