

**Allyn C. Ontko**  
[aontko@astate.edu](mailto:aontko@astate.edu)

## **Education**

1997 Ph.D. Chemistry - Iowa State University, Advisor: Robert Angelici  
1993 M.S. Chemistry - University of Wyoming, Advisor: Dean Roddick  
1990 B.Chem. University of Minnesota, Research Advisor: Wayland Noland

## **Professional Experience**

Aug. 2008 – Present Associate Professor, Arkansas State University  
Aug. 2002 – Aug. 2008 Assistant Professor, University of Wyoming – School of Pharmacy  
Aug. 2000 – Aug. 2002 Visiting Assistant Professor, University of Iowa  
Aug. 1999 – Aug. 2000 Research Fellow, Pediatric Oncology, U. of Iowa Hospitals and Clinics  
Aug. 1998 – Aug. 1999 Postdoc, University of Iowa, Darrel Eyman  
Aug. 1997 – Aug. 1998 Postdoc, University of North Carolina; Chapel Hill, H. Holden Thorp

## **Awards and Honors**

Honors College Professor of the Year, Arkansas State University, October 2011  
American Association of Colleges of Pharmacy (AACP) Teacher of the Year, May 2007.  
John P. Ellbogen Meritorius Classroom Teaching Award: University of Wyoming, Spring 2007.  
University of Wyoming College of Health Sciences Outstanding Teacher Award, Spring 2007.  
GAANN Fellow: Iowa State University, Awarded Fall 1996 and Fall 1995.  
Arthur P. Helwig Fellow: Iowa State University, Fall 1993.

## **Research and Scholarship**

### **• Grants and Funding Awarded**

- May 2012: A. Ontko(PI), P. Crooks (Co-PI): NIH/NIGMS, #8 P20 GM103429-11 \$343,176
- Aug 2009: A. Ontko(PI); ABI Instrument Grant. \$15,000
- Aug 2006: D.Roddick, B.Sullivan, A.Ontko, R.Lewis; NSF- MIR, CHE-0619920: \$311,943
- May 2004: A. Ontko(PI); Wyoming VFW Cancer Grant; \$1,400
- Aug 2003: R. O. Kelley, A. Ontko NIH/NCRR #RR-16474. \$326,110
- May 2003: A. Ontko(PI); BRIN Summer Undergraduate Research Program; \$4,000.
- May 2003: A. Ontko(PI); Major Equipment Program, University of Wyoming, \$23,950.
- April 2003: A. Ontko(PI), D. Roddick; Faculty Grant-in-Aid; \$7,500.
- April 2002: A. Ontko(PI); Morris Academic Partnership (MAP), \$2,000.
- April 2002: A. Ontko(PI); University Research Opportunities Program (UROP); \$1,700

## Research and Scholarship cont...

### • Publications (Manuscripts & Patents):

1. "Synthesis and Characterization of Cycloaurated Complexes Through Transmetalation" Kamalakannan Palanichamy and Allyn C. Ontko *manuscript in preparation*.
2. "Novel Gold(III) Chelates of 7-substituted dipyrido[3,2-a:2',3'-c] phenazine and their evaluation as antitumor agents" *manuscript in preparation*.
3. "Synthesis and antimicrobial studies of novel derivatives of 4-(4-formyl-3-phenyl-1H-pyrazol-1-yl)benzoic acid as potent anti-*Acinetobacter baumannii* agents" D. Allison, E. Delancey, H. Ramey, C. Williams, Z. Alsharif, H. Al-khattabi, A. Ontko, D. Gilmore, M. Alam *Bioorg Med Chem Lett* 27 (2017) 387–392
4. "Synthesis and antimicrobial studies of azomethine and N-arylamine derivatives of 4-(4-formyl-3-phenyl-1H-pyrazol-1-yl)benzoic acid as potent anti-Methicillin-resistant *Staphylococcus aureus* (MRSA) agents" A. Ontko, D. Gilmore, M. Alam; *Med Chem Res* (2016). doi:10.1007/s00044-016-1678-8
5. Palanichamy, K., Sreejayan, N., Ontko, A.; "Overcoming cisplatin resistance using gold(III) mimics: Anticancer activity of novel gold(III) polypyridyl complexes" *J. Inorg. Biochem.*, 2012, 106(1), 32-42.
6. "Synthesis, characterization, and aqueous chemistry of cytotoxic Au(III)polypyridyl complexes" Kamalakannan Palanichamy, Allyn C. Ontko; *Inorganica Chimica Acta* 2006, 359, 44.
7. "A Newly synthetic chromium complex – chromium(phenylalanine)<sub>3</sub> improves insulin responsiveness and reduces whole body glucose tolerance" Yang, X; Palanachamy, K.; Ontko, A.; Rao, M.N.A.; Fang, C.; Ren, J.; Sreejayan, N. *FEBS Letters* 2005, 579, 1458-1464.
8. "Synthesis and Characterization of CpMn(dfep)(L) Complexes (dfep = (C<sub>2</sub>F<sub>5</sub>)<sub>2</sub>PCH<sub>2</sub>CH<sub>2</sub>P(C<sub>2</sub>F<sub>5</sub>)<sub>2</sub>; L = CO, H<sub>2</sub>, N<sub>2</sub>). An Unusual Example of a Dihydride to Dihydrogen Photochemical Conversion" Merwin, R. K.; Allyn C. Ontko, A. C.; Houllis, J. F.; Roddick, D. M., *Polyhedron* 2004, 23, 2873-2878.
9. Thorp, H. Holden; Ontko, Allyn C. Electrodes coated with metal complex-containing film and its use for electrochemical detection of nucleic acid bases. Patent # 5470.204IP.NO U.S. (2001)
10. Thorp, H. Holden; Ontko, Allyn C.. Electropolymerizable film, and method of making and use thereof. PCT Int. Appl. (2000)
11. "Electropolymerizable film, and the method of making and use thereof" A. C. Ontko and H. H. Thorp; Patent # XANI005, Xanthon Corp. (1999).
12. "Electrochemical Detection of Single-Stranded DNA using Polymer-Modified Electrodes" A.C. Ontko, P. M. Armistead, S. R. Kircus, H. H. Thorp. *Inorg. Chem.* 1999,38, 1842.
13. "Kinetic and Equilibrium Studies of the Adsorption of Bi- and Tridentate Isocyanides on Gold Powder" A. C. Ontko and R. J. Angelici. *Langmuir* 1998, 14, 3071.
14. "Effects of Alkyl Chain Length on the Adsorption of *n*-Alkylisocyanides (RNC) on Gold Powder." A.C. Ontko and R. J. Angelici. *Langmuir* 1998, 14, 1684.
15. "Protonation Studies of (η<sup>5</sup>-C<sub>5</sub>R<sub>5</sub>)Ru(dfep)H Complexes." Allyn Ontko, Tina Fong, Alan Lough, Robert Morris, and Dean Roddick. *Organometallics* 1998, 17, 5467.
16. "Synthesis, Structure, and Reactivity Properties of (η<sup>5</sup>-C<sub>5</sub>H<sub>5</sub>)Ru(dfep)X Complexes: New Electrophilic Analogues to (η<sup>5</sup>-C<sub>5</sub>H<sub>5</sub>)Ru(CO)<sub>2</sub> X Systems." M.S. Keady, J.D. Koola, A.C. Ontko, R.K. Merwin, D.M. Roddick *Organometallics* 1992, 11, 3417.

- **Representative Presentations (National and Regional Abstracts):** *\*too many to list*
  - Novel Au(III) polypyridyl complexes as potential antibacterial agents; Kim Raath, David Gilmore, and **Allyn Ontko**, MICA conference, Memphis, TN, October 2016
  - Synthesis and antimicrobial studies of pyrazole derivatives as potent anti-Gram-negative bacterial agents; Devin, A.; Delancey, E.; Conrad, W.; **Ontko, A.**; Gilmore, D. F.; Alam, M. A.; CREATE A-STATE, Arkansas State University, PO Box 409, State University, AR 72467
  - Novel Gold(III) Chelates of 7-substituted dipyrido[3,2-a:2',3'-c] phenazine and their evaluation as antitumor agents; Kamalakannan Palanichamy, Connor Gatewood, and **Allyn C Ontko**, Spring ACS Meeting, Denver CO, March 2015
  - Synthesis and antimicrobial studies of pyrazole derivatives as potent antibacterial agents. Trent, R.; Gibler, D. J.; Jamaricus, B.; **Ontko, A. C.**; Gilmore, D. Alam, M. A. 67th Southeast/71st Southwest Joint Regional Meeting of the American Chemical Society, Memphis, TN, United States, November 4-7, **2015**. SERMACS-SWRM-254.
  - Effect of oxidation state on the anticancer activity of several gold polypyridyl complexes; Danielle Jamie Gibler and **Allyn Ontko**, Spring ACS Meeting, Denver CO, March 2015
  - Antibacterial activity of Au(III) polypyridyl complexes; Kim Raath, David Gilmore, and **Allyn Ontko**, Fall ACS Regional Meeting, Nashville, TN, Nov 2014
  - Effect of Cis/Trans Ligand Environment on Au(III) Anticancer Activity, Kamalakannan Palanichamy, Jared Burks, and **Allyn Ontko**, IDEA conference, Little Rock AR, Nov 2013
  - Effect of Redox Stabilization on Au(III) Anticancer Activity, Kamalakannan Palanichamy, Chip Nataro, Taylor House, and **Allyn Ontko**, IDEA conference, Little Rock AR, Nov 2013
  - Effect of Redox Stabilization on Au(III) Anticancer Activity, Kamalakannan Palanichamy, Chip Nataro, Taylor House, and **Allyn Ontko**, Midwest Regional Meeting, ACS, Fall 2013
  - Effect of redox stabilization on Au(III) anticancer activity. MICA conference, March 2012
  - Comparative modeling of pharmaceutical docking positions on P-glycoprotein using high-speed computational methods. Midsouth conference in molecular modeling, Memphis, TN, May 2011
  - Novel Gold(III) Polypyridyls Promote p53 Mediated Cytotoxicity in Cisplatin Sensitive and Resistant Human Ovarian Cancer Cell Lines, MICA Conference, Oct 2010
  - Using Au(III) and Pt(II) to enhance anticancer activity of 5-fluorouracil (5-FU), MICA Conference, Oct 2010
  - Pre- and post-assessment of general chemistry students, 240th ACS National Meeting, Boston, MA, May 2010
- **Journal Reviewer**
  - *J. Inorg Biochem, Inorg Chimica Acta, Organometallics, J. Organomet Chem, and others*
- **Book Reviews and/or Edits**
  - "Biochemistry, the Molecular Basis of Life" by McKee, Oxford University Press, Fall 2013
  - "Biochemistry, A Conceptual Approach" by Sandler, University Press, Jan 2011
  - "Biochemistry" by Holden. Pearson Publishing. May 2010.
  - "Principles of Pharmacology" Edited by Dr. Lynn Wecker, Dr. Sam Enna and Dr. David Bylund; Elsevier Science & Technology, Academic Press, 360 Park Avenue South, New York, NY 10010-1710. May 2006.

- "Chemistry, 3<sup>rd</sup> Ed."; McMurry & Fay, Prentice Hall, Upper Saddle River, NJ, June 2002.
- **Teaching (courses as primary instructor or lecturer listed)**
  - *Arkansas State University*: Biochemistry, General Chemistry 1 & 2, Organic Chemistry I, Environmental Chemistry, Molecular Genetics, Medicinal Chemistry, Pharmacology
  - *University of Wyoming – School of Pharmacy & School of Medicine*: Biochemistry, Medicinal & Natural Products Chemistry I & II, Clinical Toxicology, Pharmacology, Pathology
  - *University of Iowa*: Organic Chemistry I & II, General Chemistry I & II, Inorganic Chemistry
- **Service (Committees)**
  - *Arkansas State University*: Graduate Council, Preprofessional, Library Liason, Tenure and Promotion, Numerous faculty searches, Graduate Program, Undergraduate Curriculum, MCAT prep courses, ADHE Teacher development workshops. Extensively involved in curriculum assessment and development
  - *University of Wyoming*: Admissions (MD & PharmD), Graduate program development, Accreditation, Lab Safety, Faculty Searches, PCAT and NAPLEX course review

**References available on request.**