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Personal Statement

I am a bioinorganic chemist and I love science! As a Postdoctoral Research Associate in the Jay lab, I conduct research on both holmium nanoparticles for cancer therapy and radionuclide decorporation agents. When not in the lab, I am with my beautiful wife Dawn, who is a talented jeweler, our two hound dogs Cody and Rain, and our ferret Eowyn. We're originally from upstate NY, and I am a loyal Mets fan. I love to read (the *Lonesome Dove* series and *The Lord of the Rings* trilogy are my favorites), writing songs, and singing while strumming my guitar. My favorite movie of all time is 1952's *High Noon*.

Education

August 2001. Associate of Science, Life Science, Mohawk Valley Community College. Graduated with 4.0 GPA.

May 2003. Bachelor of Science, Biology (with Honors) with a minor in Chemistry, Utica College of Syracuse University. Graduated *summa cum laude*.

June 2008. Doctorate of Philosophy, Chemistry, Syracuse University. Advisor: Dr. James C. Dabrowiak.

Dissertation Title:
Carboplatin: Exploring Mechanism of Action and Improved Drug Delivery: 1) Role of Carbonate in the Mechanism of Action of Carboplatin, 2) Cytotoxicity of Mesoporous Silica Nanomaterials

Employment

July 2008 – July 2010. Postdoctoral Fellow, Postdoctoral Training Program in Tumor Biology at the Lombardi Comprehensive Cancer Center at Georgetown University. Advisor: Dr. Fung-Lung Chung.

August 2010 – present. Postdoctoral Research Associate, Division of Molecular Pharmaceutics, Eshelman School of Pharmacy, University of North Carolina, Chapel Hill. Advisor: Dr. Michael Jay.

Publications

Refereed Articles:

1. Di Pasqua, A. J., Goodisman, J., Kerwood, D. J., Toms, B. B., Dubowy, R. L. and Dabrowiak, J. C. (2006) Activation of carboplatin by carbonate. *Chem. Res. Toxicol. 19*, 139-149. *One of the 20 most accessed articles of 2006 in Chemical Research in Toxicology.*
2. Di Pasqua, A. J., Goodisman, J., Kerwood, D. J., Toms, B. B., Dubowy, R. L. and Dabrowiak, J. C. (2007) Role of carbonate in the cytotoxicity of carboplatin. *Chem. Res. Toxicol. 20*, 896-904.
3. Di Pasqua, A. J., Goodisman, J., Kerwood, D. J., Toms, B. B. and Dabrowiak, J. C. (2007) Modification of carboplatin by Jurkat cells. *J. Inorg. Biochem. 101*, 1438-1441.
4. Di Pasqua, A. J., Sharma, K. K., Shi, Y.-L., Toms, B. B., Ouellette, W., Dabrowiak, J. C. and Asefa, T. (2008) Cytotoxicity of mesoporous silica nanomaterials. *J. Inorg. Biochem. 102*, 1416-1423.
5. Sorokanich, R. S., Di Pasqua, A. J., Geier, M. and Dabrowiak, J. C. (2008) Influence of carbonate on the binding of carboplatin to DNA. *Chem. Biodivers. 5*, 1540-1544.
6. Di Pasqua, A. J., Centerwall, C. R., Kerwood, D. J. and Dabrowiak, J. C. (2009) Formation of carbonato and hydroxo complexes in the reaction of platinum anticancer drugs with carbonate. *Inorg. Chem. 48*, 1192-1197.
7. Di Pasqua, A. J., Mishler II, R., Shi Y.-L., Dabrowiak, J. C. and Asefa, T. (2009) Preparation of antibody-conjugated gold nanoparticles. *Mater. Lett. 63*, 1876-1879.
8. Di Pasqua, A. J., Wallner, S., Kerwood, D. J. and Dabrowiak, J. C. (2009) Adsorption of the Pt^{2+} anticancer drug carboplatin by mesoporous silica. *Chem. Biodivers. 6*, 1343-1349.
9. Di Pasqua, A. J., Hong, C., Wu, M. Y, McCracken, E., Wang, X., Mi, L. and Chung, F.-L. (2010) Sensitization of non-small cell lung cancer cells to cisplatin by naturally occurring isothiocyanates. *Chem. Res. Toxicol. 23*, 1307-1309.

Published Conference Abstract:

1. Dabrowiak, J. C., Di Pasqua, A. J., Centerwall, C. R., Sorokanich, R., Goodisman, J. and Toms, B. B. (2007) Importance of carbonate in the mechanism of action of the platinum drugs. *J. Bio. Inorg. Chem. 12 (Suppl 1)*, S10.

Peer Reviewer:

1. *J. Med. Chem.*

Selected Presentations

1. Di Pasqua, A. J., Goodisman, J., Kerwood, D. J., Toms, B. B., Dubowy R. L. and Dabrowiak, J. C. Role of carbonate in the cytotoxicity of carboplatin. Presented at the 31st Annual International Precious Metals Institute (IPMI) Conference, Miami, FL, June 9-12, 2007.
2. Di Pasqua, A. J., Goodisman, J., Kerwood, D. J., Toms, B. B., Dubowy R. L. and Dabrowiak, J. C. Importance of carbonate in the mechanism of action of carboplatin. Presented at the 234th ACS National Meeting, Boston, MA, August 19-23, 2007.
3. Di Pasqua, A. J., Sharma, K. K., Shi, Y.-L., Toms, B. B., Dabrowiak, J. C. and Asefa, T. Cytotoxicity of mesoporous silica nanomaterials. Presented at the 234th ACS National Meeting, Boston, MA, August 19-23, 2007.
4. Dabrowiak, J. C., Di Pasqua, A. J., Centerwall, C. R., Sorokanich, R. S., Geier, M. M., Goodisman, J., Kerwood, D. J., Toms, B. B. and Dubowy, R. L. Importance of carbonate in the mechanism of action of the platinum drugs. Presented at the 13th International Conference on Biological Inorganic Chemistry, Institute of Inorganic Chemistry, University of Vienna, Vienna, Austria, July 15-20, 2007.
5. Asefa, T., Di Pasqua, A. J., Shi, Y.-L. and Dabrowiak, J. C. Antibody-conjugated gold nanoparticles for detection of pathogens in water. Presented at the 235th ACS National Meeting, New Orleans, LA, April 6-10, 2008.

Awards

1999 Presidential Scholarship, Mohawk Valley Community College.

2001 Transfer Achievement Scholarship, Utica College of Syracuse University.

2006 International Precious Metals Institute's Gemini Industries Graduate Student Award for 2006. Given to only one graduate student each year, this award is the highest ($5,000) given by the institute to a research student, and was received at the Annual IPMI Conference in Las Vegas, NV, June 10-13, 2006.

2007 Syracuse University Graduate Student Travel Grant for travel to the 31st Annual IPMI Conference, Miami, FL, June 9-12, 2007.

2007 Syracuse University Graduate Student Travel Grant for travel to the 234th ACS National Meeting, Boston, MA, August 19-23, 2007.

2009 Syracuse University's College of Arts and Sciences 2009 Doctoral Prize for exemplifying excellence in scholarship and research at the graduate level.