

## CURRICULUM VITAE

**PAUL J. SMITH**

### **EDUCATION**

Postdoctoral	1993-1995	Johns Hopkins University, Chemistry
Ph.D.	1993	University of Pittsburgh, Chemistry
B.S.	1988	SUNY College at Brockport, Chemistry and Biology

### **Experience in Higher Education**

2001-present	UMBC, Associate Professor, Chemistry
1995-2001	UMBC, Assistant Professor, Chemistry

### **Honors Received**

2024	Braude Award (Maryland ACS)
------	-----------------------------

### **Research Support and/or Fellowships**

2014-2015	\$70,000, NSF, PI for sub-award from Penn State University
2001-2004	\$172,622, NSF, Co-PI
2000-2004	\$397,500, NSF (CAREER Award), PI
1997-1999	\$30,000, American Cancer Society, PI
1993-1995	NIH Postdoctoral Fellowship

### **Ph.D. Students**

Daniel Talley, 2016, Chair  
Dawn Ward, 2009, Chair  
Steven Hauser, 2004, Chair  
Ben Wang, 2004, Chair

### **Master's Students**

David Gerasch, 2004, Chair  
Jessica Jenkins, 2004, Chair  
Christopher Taylor, 2003, Chair  
Andrei Yelovich, 1998, Chair  
Edward Cotner, 1997, Chair

### **Undergraduate Students**

Kevin Schwanebeck, Provost's Research Fellowship, 2024-present, Mentor  
Laci Rothblum, Provost's Research Fellowship, 2024-present, Mentor  
Alexander Joshua, Provost's Research Fellowship, 2024-present, Mentor  
Shauna Kearney, Provost's Research Fellowship, 2023-2025, Mentor  
Frank Furtado, Provost's Research Fellowship, 2020-2022, Mentor  
Dhruvil Patel, Provost's Research Fellowship, 2017-2019, Mentor  
Adnan Baker-Agha, Provost's Research Fellowship, 2017-2019, Mentor  
Brent Runge, Provost's Research Fellowship, 2014-2015, Mentor  
Donald Hong, Provost's Research Fellowship, 2013-2014, Mentor

John Papanikos, 2013-2014, Provost's Research Fellowship, Mentor  
Ryan Porell, 2012-2013, Provost's Research Fellowship, Mentor  
Nathan Fastman, 2011-2012, Provost's Research Fellowship, Mentor  
David Bartee, 2009-2010, Provost's Research Fellowship, Mentor

## **Publications**

### Peer-Reviewed Articles

- 27) Jackson, A. C.; Pinter, T. B. J.; Talley, D. C.; Baker-Agha, A.; Patel, D.; Smith, P. J.; Franz, K. J. "Benzimidazole and Benzoxazole Zinc Chelators as Inhibitors of Metallo- $\beta$ -Lactamase NDM-1" *ChemMedChem* 2021, 16, 654-661.
- 26) Singh, N. B.; Su, Ching Hua; Arnold, Bradley; Choa, Fow-Sen; Cooper, Christopher; Sova, Stacey; Gill, Puneet; Dayal, Vishal; Kelly, Lisa; Prasad, Narasimha; Smith, Paul; Cullum, Brian "Effect of Additives: Organic-Metal Oxide Nanocomposites for  $\gamma$ -ray Sensors," *Proceedings of SPIE*, 2018, 10629, 106290D-1 – 106290D-6.
- 25) Bhavsar, Jayati ; Tufail, Areeba; Gautam, Pooja; Arnold, Brad; Choa, Fow-Sen; Kelly, Lisa; Cullum, Brian; Smith, Paul; Su, Ching Hua; Mandal, K. D.; Singh, N. B. "Design and Characteristics of Hydroxyapatites: Effect of Radiation." *Proceedings of SPIE*, 2018, 10662, 1066205-1 – 1066205-6.
- 24) Talley, D.C.; Delang, L.; Neyts, J.; Leyssen, P.; Smith, P.J. "Exploring the importance of zinc binding and steric/hydrophobic factors in novel HCV replication inhibitors" *Bioorg. Med. Chem. Lett.* 2016, 26, 1196-1199.
- 23) Ward, D.N.; Talley, D.C.; Tavag, M.; Menji, S.; Schaughency, P.; Baier, A.; Smith, P.J. "UK-1 and structural analogs are potent inhibitors of hepatitis C virus replication" *Bioorg. Med. Chem. Lett.* 2014, 24, 609-612.
- 22) Judge, S. I. V.; Smith, P. J. "Patents related to therapeutic activation of K(ATP) and K(2P) potassium channels for neuroprotection: ischemic/hypoxic/anoxic injury and general anesthetics." *Exper. Opin. Ther. Pat.* **2009**, 19, 433-460.
- 21) Judge, S. I. V.; Smith, P. J.; Stewart, P. E.; Bever, Jr., C. T. "Potassium Channel Blockers and Openers as CNS Neurologic Therapeutic Agents" *Rec. Pat. CNS Drug Disc.* **2007**, 2, 200-228.
- 20) Hauser, S.L.; Smith P.J. "Induced-Fit Binding of an Aryl Phosphate by a Macrobicyclic Dicationic Cyclodextrin Derivative" *J. Phys. Org. Chem.* **2005**, 18, 473-476.
- 19) Wang, B. B.; Maghami, N.; Goodlin, V. L.; Smith, P. J. "Critical Structural Motif for the Catalytic Inhibition of Human Topoisomerase II by UK-1 and Analogs" *Bioorg. Med. Chem. Lett* **2004**, 14, 3221-3226.
- 18) Wang, B. B.; Smith, P. J. "Synthesis of a Terbenzimidazole Topoisomerase I Poison via Iterative Borinate Ester Couplings" *Tetrahedron Lett.* **2003**, 44, 8967-8969
- 17) Wu, L-Q.; Embree, H. D.; Balgley, B. M.; Smith, P. J.; Payne, G. F. "Utilizing Renewable Resources to Create Functional Polymers: Chitosan-Based Associative Thickener" *Environ. Sci. Tech.* **2002**, 36, 3446-3454.
- 16) Chen, T.; Kumar, G.; Harris, M. T.; Smith, P. J.; Payne, G. F. "Enzymatic Grafting of Hexyloxyphenol onto Chitosan to Alter Surface and Rheological Properties" *Biotech. Bioeng.* **2000**, 70, 564-573.
- 15) Hauser, S. L.; Johanson, E. W.; Green, H. P.; Smith, P. J. "Aryl Phosphate Complexation By Cationic Cyclodextrins. An Enthalpic Advantage for Guanidinium over Ammonium and Unusual Enthalpy-Entropy Compensation" *Org. Letters* **2000**, 2, 3575-3578.

- 14) Koehler, J.; Brune, B.; Chen, T.; Glemza, A. J.; Vishwanath, P.; Smith, P. J.; Payne, G. F. "Potential Approach for Fractionating Oxygenated Aromatic Compounds from Renewable Resources" *Ind. Eng. Chem. Res.* **2000**, *39*, 3347-3355.
- 13) Kumar, G.; Bristow, P. J.; Smith, P. J.; Payne, G. F. "Enzymatic Gelation of the Natural Polymer Chitosan" *Polymer* **2000**, *41*, 2157-2168.
- 12) Shao, L.; Kumar, G.; Lenhart, J. L.; Smith, P. J.; Payne, G. F. "Enzymatic Modification of the Synthetic Polymer Polyhydroxystyrene" *Enzyme Microb. Technol.* **1999**, *25*, 660-668.
- 11) Brune, B. J.; Koehler, J. A.; Smith, P. J.; Payne, G. F. "Correlation between Adsorption and Small Molecule Hydrogen Binding" *Langmuir* **1999**, *15*, 3987-3992.
- 10) Koehler, J. A.; Wallace, K. K.; Smith, P. J.; Payne, G. F. "Selective Adsorption of Sterically Hindered Phenols through a Single-Point Binding Mechanism" *Ind. Eng. Chem. Res.* **1999**, *38*, 3076-3082.
- 9) Hauser, S. L.; Cotner, E. S.; Smith, P. J. "Synthesis of a Capped Dicationic Derivative of  $\beta$ -Cyclodextrin" *Tetrahedron Lett.* **1999**, *40*, 2865-2866.
- 8) Kumar, G.; Smith, P. J.; Payne, G. F. "Enzymatic Grafting of a Natural Product onto Chitosan to Confer Water Solubility Under Basic Conditions" *Biotech. Bioeng.* **1999**, *63*, 154-165.
- 7) Cotner, E. S.; Smith, P. J. "Phosphotyrosine Binding by Ammonium- and Guanidinium-Modified Cyclodextrins" *J. Org. Chem.* **1998**, *63*, 1737-1739.
- 6) Chatterjee, M.; Smith, P. J.; Townsend, C. A. "The Role of the Aminosugar and Helix Binding in the Thiol-Induced Activation of Calicheamicin for DNA Cleavage" *J. Am. Chem. Soc.* **1996**, *118*, 1938-1948.
- 5) Smith, P. J.; Kim, E.; Wilcox, C. S. "Substrate-Specific Catalysis by Ion Pairs" *Angew. Chem. Int. Ed. Engl.* **1993**, *32*, 1648-1650.
- 4) Smith, P. J.; Reddington, M. V.; Wilcox, C. S. "Ion Pair Binding by a Urea in Chloroform Solution" *Tetrahedron Lett.* **1992**, 6085-6088.
- 3) Smith, P. J.; Soose, D. J.; Wilcox, C. S. "The Intramolecular Salt Effect. An Acrylate Ester Bearing an Ion Pair Shows Enhanced Rates and Stereoselectivity in a Nitron Cycloaddition" *J. Am. Chem. Soc.* **1991**, *113*, 7412-7414.
- 2) Smith, P. J.; Wilcox, C. S. "The Chemistry of Functional Group Arrays. Electrostatic Catalysis and the 'Intramolecular Salt Effect'" *Tetrahedron* **1991**, *47*, 2617-2628.
- 1) Smith, P. J.; Wilcox, C. S. "The Intramolecular Salt Effect" *J. Org. Chem.* **1990**, *55*, 5675-5678.

#### Book Chapters

- 2) D. Lenoir, P.J. Smith and J.F. Liebman, "Nonplanar Alkenes" in *Beyond the van't Hoff and LeBel Hypothesis*, ed. H. Dodziuk, Wiley-VCH, **2009**, pp. 103-146.
- 1) P.J. Smith and J.F. Liebman, "Distorted Aromatics" in *Beyond the van't Hoff and LeBel Hypothesis*, ed. H. Dodziuk, Wiley-VCH, **2009**, pp.147-153.

#### Presentations

##### Refereed

Smith, P. J., Talley, D. C. "Exploring the importance of zinc binding and steric factors in novel HCV replication inhibitors," ACS Central Regional Meeting, American Chemical Society, Pittsburgh, PA, October 29, 2014 (Poster).

### Non-Refereed

Hong, D., Smith, P. J. "Synthesis of Allenes for Photochemical Devices," 20th Annual URCAD, Poster, UMBC, Baltimore, MD, April 22, 2015 (Poster).

Talley, D. C., Smith, P. J. "Novel inhibitors of the HCV NS3 helicase," Frontiers at the Chemistry Biology Interface Symposium, UM School of Pharmacy, Baltimore, MD, May 10, 2014 (Poster).

Papanikos, J., Smith, P. J. "Synthesis of a New Potential Inhibitor of the Hepatitis C Helicase," 19th Annual URCAD, UMBC, Baltimore, MD, April 23, 2014 (Poster).

### Patent

US 13/502,244 "Heterocyclic Inhibitors of the Helicase of the Hepatitis C Virus", Paul J. Smith, July, 2014.

### Service

#### Department

2018 Search Committee for Chemistry Office Secretary, Member  
2014 Chair, Promotion and Tenure Committee for Tiffany Gierasch  
2013-present Associate Chair, Department of Chemistry and Biochemistry  
2013-2025 Undergraduate Program Director for Chemistry  
2006-2025 Undergraduate Curriculum Committee, Chair  
2004 Chair, Contract Renewal Committee for Colin Garvey (Third Year Review)

#### University

2016-2018 Academic Standards Executive Committee, Member  
2006-2018 Undergraduate Research Awards Committee, Member  
2006-2015 Academic Standards Advisory Committee, Member  
2010, 2016, 2018 Search Committees for Professional Advisors for the College of Natural and Mathematical Sciences, Member

#### Profession

2019 Chair, 2019 Mid-Atlantic ACS Regional Meeting (MARM)  
2017-2019 Member, Local Section Activities Committee of the American Chemical Society, National  
2016, 2004 Chair, Maryland Section of the American Chemical Society  
2016 Associate Member, Local Section Activities Committee of the American Chemical Society, National  
2012 Co-Chair, 2012 Mid-Atlantic ACS Regional Meeting (MARM)  
2010 Chair, Committee on Admissions of the American Chemical Society, National  
2010-2015 Member, Membership Affairs Committee of the American Chemical Society, National (Chaired Subcommittee on Categories and Dues and served as liaison to the Graduate Education Advisory Board)  
2010-2019 Councilor, Maryland Section of the American Chemical Society  
2004-2019 Member, Executive Committee, Maryland Section of the American Chemical Society  
2004-2009 Member, Committee on Admissions of the American Chemical Society, National