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# WILLIAM PAUL MALACHOWSKI

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### **EDUCATION**

UNIVERSITY OF MICHIGAN, ANN ARBOR, MI Ph.D., Medicinal Chemistry, June 1993
M.S., Medicinal Chemistry, December 1988

COLLEGE OF THE HOLY CROSS, WORCESTER, MA B.A., Chemistry with Honors, May 1987

## PROFESSIONAL EXPERIENCE

## **BRYN MAWR COLLEGE**

Barbara Ramsay 1965 and Robert Ramsay Professor in Chemistry, 2022-present Professor of Chemistry, 2020-2022
Associate Provost, 2016-2020
Professor and Chair of Chemistry, 2011-2016
Associate Professor of Chemistry, 2006-2011
Assistant Professor of Chemistry, 2000-2006

#### OXFORD UNIVERSITY, UK

Research Associate on the Marion Bridgman Slusser Fund, January-July 2011 Inthomycin A synthesis

## UNIVERSITY OF NEW ENGLAND

Assistant Professor of Chemistry, 1996-2000

### RENSSELAER POLYTECHNIC INSTITUTE

Post-doctoral Research Assistant with Prof. Arthur G. Schultz, 1993-1996 Accomplished the asymmetric total synthesis of (+)-apovincamine

# STATE UNIVERSITY OF NEW YORK AT ALBANY Lecturer in Organic Chemistry, Fall Semester 1995

## UNIVERSITY OF MICHIGAN

Graduate Research Assistant with Prof. James K. Coward, 1987-1993 Synthesised phosphorus-based enzyme inhibitors

## **GRANT SUPPORT**

- National Institutes of Health (National Institute of General Medical Sciences), "The enantioselective synthesis of new phenanthridinone and carbazole analogs with quaternary and tertiary carbons using the Birch-Heck sequence" (1-R15-GM123475-01A1), 2018-2022 (\$362,500)
- American Chemical Society Division of Organic Chemistry Summer Undergraduate Research Fellowship, 2013, awarded to Yelin Jung (\$5,000)

- National Institutes of Health (National Cancer Institute), "IDO Inhibitors for Combinatorial Cancer Therapy" (R01 CA109542-04A2), a collaboration with Lankenau Institute of Medical Research, 2011-16 (\$423,970)
- National Science Foundation, Major Research Instrumentation Program (Recovery and Reinvestment), "400 MHz NMR Acquisition" (CHE-0958996), 2010-2012 (\$263,900)
- National Institutes of Health (National Institute of General Medical Sciences), "Synthetic tools for new antibiotics" (1-R15-GM087291-01A1), 2010-2014 (\$211,052)
- American Chemical Society Division of Organic Chemistry Summer Undergraduate Research Fellowship, 2013, awarded to Terry Huh (\$5,000)
- American Chemical Society PRF 2008 Supplement for Underrepresented Minority Research Fellowship (\$5,000)
- Bristol-Myers Squibb 2007 Undergraduate Research Award in Organic Chemistry (\$5,000)
- Pennsylvania Department of Health, Commonwealth Universal Research Enhancement (CURE) Program, "New Tools for the Synthesis of Cyanthiwigin AC and Analogs" 2006 (\$9,544)
- Bristol-Myers Squibb 2006 Undergraduate Research Award in Organic Chemistry (\$5,000)
- American Chemical Society, The Petroleum Research Fund, "Sequential Birch reduction-allylation/Cope rearrangement for the enantioselective construction of carbocyclic quaternary stereogenic centers" (43238-AC1) 2005-2009 (\$80,000)
- National Institutes of Health (National Cancer Institute), "IDO Inhibitors for Combinatorial Cancer Therapy" (R01-CA109542), a collaboration with Lankenau Institute of Medical Research, 2005-9 (\$231,000)
- Bristol-Myers Squibb 2004 Undergraduate Research Award in Organic Chemistry (\$5,000)
- National Institutes of Health-Academic Research Enhancement Award, "The Asymmetric Synthesis of α-Aminophosphonic Acids" (1-R15-GM58469-01), 1999-2003 (\$75,000)
- Pfizer 2002 Summer Undergraduate Research Fellowship Award (mentor to Rachel Kahn) (\$5,000)
- Bristol-Myers Squibb 2002 Undergraduate Research Award in Organic Chemistry (\$5,000)
- Bristol-Myers Squibb 2001 Undergraduate Research Award in Organic Chemistry (\$5,000)
- National Science Foundation-Research at Undergraduate Institutions, "Design, Synthesis and Evaluation of a Novel Serine Protease Inhibitor Based on Monocyclic β-Lactams" (CHE-9710479), 1997-2001 (\$54,000)

## **PUBLICATIONS**

- "Ni-Catalyzed Enantioselective Intramolecular Mizoroki-Heck Reaction for the Synthesis of Phenanthridinone Derivatives" Diana Rachii, Dana J. Caldwell, Yui Kosukegawa, Mary Sexton, Paul R. Rablen, and William P. Malachowski. *Journal of Organic Chemistry* **2023**, *88*, 8203–8226.
- "Catalytic Enantioselective Birch–Heck Sequence for the Synthesis of Phenanthridinone Derivatives with an All-Carbon Quaternary Stereocenter" Mary Sexton, William P. Malachowski, Glenn P. A. Yap, Diana Rachii, Greg Feldman, Andrew T. Krasley, Zhilin Chen, My Anh Tran, Kalyn Wiley, Alexandra Matei, Samantha Petersen, and Sabrina Tran Tien. *Journal of Organic Chemistry* **2022**, *87*, 1154-1172.
- "Palladium-catalyzed mono-γ-arylation of 7-methoxy-4-methylcoumarin" Mary E Sexton, Ami Okazaki, Zhuowen Yu, Alexis van Venrooy, Jason R Schmink, William P Malachowski. *Tetrahedron Letters* 2019, 60, 151057.
- "Diaryl Hydroxylamines as Pan or Dual Inhibitors of Indoleamine 2,3-Dioxygenase-1, Indoleamine 2,3-Dioxygenase-2 and Tryptophan Dioxygenase" Maria Winters, James B. DuHadaway, Khoa N. Pham, Ariel Lewis-Ballester, Shorouk Badir, Jenny Wai, Eesha Sheikh, Syun-Ru Yeh, George C. Prendergast, Alexander J. Muller, William P. Malachowski. *European Journal of Medicinal Chemistry* **2019**, *162*, 455-464.
- "Proton Spin-lattice Relaxation in Organic Molecular Solids: Polymorphism and the Dependence on Sample Preparation" Peter A. Beckmann, Jamie, Ford, William P. Malachowski, Andrew R. McGhie, Curtis E. Moore, Arnold L. Rheingold, Gilbert J. Sloan, Gilbert J., Steven T. Szewczyk. *ChemPhysChem* **2018**, *19*, 2423-6.

- "Catalytic Enantioselective Birch-Heck Sequence for the Synthesis of Tricyclic Structures with All-Carbon Quaternary Stereocenters" Andrew T. Krasley, William P. Malachowski, Hannah M. Terz, Sabrina Tran Tien. *Organic Letters* **2018**, *20*, 1740-1743.
- "Indoleamine 2,3-Dioxygenase and Its Therapeutic Inhibition in Cancer" George C. Prendergast, William P. Malachowski, Arpita Mondal, Peggy Scherle, Alexander J. Muller. *International Review of Cell and Molecular Biology* **2018**, *336*, 175-203.
- "Discovery of IDO1 Inhibitors: From Bench to Bedside" George C. Prendergast, William P. Malachowski, James B. DuHadaway, Alexander J. Muller. *Cancer Research* **2017**, *77*(*24*), 6795-6811.
- "Monitoring a simple hydrolysis process in an organic solid by observing methyl group rotation" Peter A. Beckmann, Joseph M. Bohen, Jamie Ford, William P. Malachowski, Clelia W. Mallory, Frank B. Mallory, Andrew R. McGhie, Arnold L. Rheingold, Gilbert J. Sloan, Steven T. Szewcyk, Xianlong Wang, Kraig A. Wheeler. *Solid State Magnetic Resonance* **2017**, *85-86*, 1-11.
- "O-Alkylhydroxylamines as Rationally-designed Mechanism-based Inhibitors of Indoleamine 2,3-Dioxygenase-1" William P. Malachowski, Maria Winters, James B. DuHadaway, Ariel Lewis-Ballester, Shorouk Badir, Jenny Wai, Maisha Rahman, Eesha Sheikh, Judith M. LaLonde, Syun-Ru Yeh, George C. Prendergast, Alexander J. Muller. *European Journal of Medicinal Chemistry* **2016**, *108*, 564-576.
- "The first report of Lewis acid reagents in the intramolecular Rauhut-Currier reaction" Andrew T. Krasley and William P. Malachowski. *Tetrahedron Letters* **2015**, *56*, 6073-6076.
- "The Enantioselective Construction of Tetracyclic Diterpene Skeletons with Friedel-Crafts Alkylation and Palladium-catalyzed Cycloalkenylation Reactions" Sarah J. Burke, William P. Malachowski, Sharan K. Mehta and Roselyn Appenteng. *Organic & Biomolecular Chemistry* **2015**, *13*, 2726-2744.
- "Enantioselective synthesis of decalin structures with all-carbon quaternary centers via one-pot sequential Cope/Rauhut-Currier reaction "Tina Morgan Ross, Sarah J Burke, William P Malachowski. *Tetrahedron Letters* **2014**, *55(33)*, 4616-4618.
- "The Tumor-Selective Cytotoxic Agent β-Lapachone is a Potent Inhibitor of IDO1" Hollie E. Flick, Judith M. LaLonde, William P. Malachowski, Alexander J. Muller. *International Journal of Tryptophan Research* **2013**, *6*, 35-45.
- "Enantioselective synthesis of bicarbocyclic structures with an all-carbon quaternary stereocenter through sequential cross metathesis and intramolecular Rauhut–Currier reaction" Yuan Qiao, Sanjeev Kumar, and William P. Malachowski. *Tetrahedron Letters* **2010**, *51(19)*, 2636-2638.
- "Structure Based Development of Phenyl-imidazole-derived Inhibitors of Indoleamine 2,3-Dioxygenase"
   Sanjeev Kumar, Daniel Jaller, Bhumika Patel, Judith M. LaLonde, James B. DuHadaway, William P. Malachowski, George C. Prendergast and Alexander J. Muller. J. Med. Chem. 2008, 51(16), 4968-4977.
- "Indoleamine 2,3-Dioxygenase Is the Anticancer Target for a Novel Series of Potent Naphthoquinone-Based Inhibitors" Sanjeev Kumar, William P. Malachowski, James B. DuHadaway, Judith M. LaLonde, Patrick J. Carroll, Daniel Jaller, Richard Metz, George C. Prendergast, and Alexander J. Muller. J. Med. Chem. 2008, 51(6), 1706-1718.
- "A key *in vivo* antitumor mechanism of action of natural product-based brassinins is inhibition of indoleamine 2,3-dioxygenase" T. Banerjee, J.B. DuHadaway, P. Gaspari, E. Sutanto-Ward, D.H. Munn, A.L. Mellor, W.P. Malachowski, G.C. Prendergast and A.J. Muller. *Oncogene* **2008**, *27*(*20*), 2851-2857.
- "The Enantioselective Synthesis of (-)-Lycoramine with the Birch-Cope Sequence" William P. Malachowski, Tapas Paul, and Sophia Phounsavath. *J. Org. Chem.* **2007**, *72(18)*, 6792-6796.
- "Exploration of the Enantioselective Birch-Cope Sequence for the Synthesis of Carbocyclic Quaternary Stereocenters" Tapas Paul, William P. Malachowski, and Jisun Lee. *J. Org. Chem.* **2007**, *72(3)*, 930-937.
- "The Enantioselective Birch-Cope Sequence for the Synthesis of Carbocyclic Quaternary Stereocenters. Application to the Synthesis of (+)-Mesembrine" Tapas Paul, William P. Malachowski, and Jisun Lee. *Org. Lett.* **2006**, *8*(*18*), 4007-4010.
- "Structure-Activity Study of Brassinin Derivatives as Indoleamine 2,3-Dioxygenase Inhibitors" Paul Gaspari, Tinku Banerjee, William P. Malachowski, Alexander J. Muller, George C. Prendergast, James DuHadaway, Shauna Bennett and Ashley Donovan. *J. Med. Chem.* **2006**, *49*(2), 684-692

- "A New Cancer Immunosuppression Target Indoleamine 2,3-Dioxygenase (IDO). A Review of the IDO Mechanism, Inhibition and Therapeutic Applications" William P. Malachowski, Richard Metz, George C. Prendergast and Alexander J. Muller. *Drugs of the Future* **2005**, *30(9)*, 897-909.
- "A General Strategy for the Synthesis of Azapeptidomimetic Lactams" Robert L. Broadrup, Bei Wang and William P. Malachowski. *Tetrahedron* **2005**, *61(43)*, 10277-10284.
- "IDO In Cancer: Targeting Pathological Immune Tolerance With Small Molecule Inhibitors" Alexander J. Muller, William P. Malachowski, and George C. Prendergast. *Expert Opinion on Therapeutic Targets* **2005**, *9*(*4*), 831-49.
- "Sequential Birch Reduction-Allylation and Cope Rearrangement of o-Anisic Acid Derivatives" William P. Malachowski and Marisha Banerji. *Tetrahedron Letters* **2004**, *45*(*44*), 8183-5.
- "The Synthesis of Azapeptidomimetic beta-Lactam Molecules as Potential Protease Inhibitors" William P. Malachowski, Chenyang Tie, Katherine Wang and Robert L. Broadrup. *J. Org. Chem.* **2002**, *67*(*25*), 8962-9.
- "Asymmetric Total Synthesis of (+)-Apovincamine and a Formal Synthesis of (+)-Vincamine. Demonstration of a Practical 'Asymmetric Linkage' between Aromatic Carboxylic Acids and Acyclic Substrates" Arthur G. Schultz, William P. Malachowski, and You Pan. *J. Org. Chem.* **1997**, *62(5)*, 1223.
- "The Chemistry of Phosphapeptides: Formation of Functionalized Phosphonochloridates Under Mild Conditions and Their Reaction with Alcohols and Amines" William P.Malachowski and James K. Coward. *J.Org. Chem.* **1994**, *59*(*25*), 7616.
- "The Chemistry of Phosphapeptides: Investigations on the Synthesis of Phosphonamidate, Phosphonate, and Phosphinate Analogues of Glutamyl-γ-Glutamate" William P. Malachowski and James K. Coward. *J.Org.Chem.* **1994**, *59*(*25*), 7625.
- "Nature of the Rate-determining Steps of the Reaction Catalyzed by the *Yersinia* Protein-tyrosine Phosphatase" Zhong-Yin Zhang, William P. Malachowski, Robert L. Van Etten, and Jack E. Dixon. *J. Biol. Chem.* **1994**, *269*(*11*), 8140.

#### PATENTS

- "Prodrug inhibitors of indoleamine 2,3-dioxygenase 1 (IDO1)" William P. Malachowski, Alexander J. Muller, George C. Prendergast, James B. Duhadaway. PCT Int. Appl., WO 2019051198 A1 20190314 **2019**.
- "IDO inhibitors and methods of use thereof" George C. Prendergast, William P. Malachowski, Alexander J. Muller. US 8389568 B2 **2013**.
- "Methods for the treatment of cancer" George C. Prendergast, Alexander J. Muller, James B. Duhadaway, William Malachowski US 8008281 B2 2011.
- "Imidazole derivatives as IDO inhibitors and their preparation, pharmaceutical compositions and use in the treatment of diseases" Mario R. Mautino, Sanjeev Kumar, Firoz Jaipuri, Jesse Waldo, Tanay Kesharwani, Nicholas N Vahanian, Charles J. Link, Judith Lalonde, George Prendergast, Alexander Muller, William Malachowski. PCT Int. Appl., WO 2009132238 A2 20091029 2009.
- "Preparation of benzochromenedione derivatives for use as IDO inhibitors" George C. Prendergast, William P. Malachowski, Alexander J. Muller. PCT Int. Appl. WO 2008115804 **2008**.
- "Dithiocarbamates as IDO inhibitors and their preparation, pharmaceutical compositions and their use in the treatment of diseases" James B. Duhadaway, George C. Prendergast, William P. Malachowski, Alexander J. Muller. WO 2007050963 **2007**.
- "Novel IDO (indoleamine 2,3-dioxygenase) inhibitors and methods of use" George C. Prendergast, Alexander J. Muller, James B. Duhadaway, and William P. Malachowski. WO 2004094409 **2004**.
- "Novel methods for the treatment of cancer and viral infections" George C. Prendergast, Alexander J. Muller, James B. Duhadaway, and William P. Malachowski. WO 2004093871 **2004**.

### PRESENTATIONS

• "Chiral all-carbon quaternary center synthesis using the Birch-Heck sequence" Tetyana Yaroslava Rudenko, Mary Sexton, and William P. Malachowski, Abstracts of Papers, 261st ACS National Meeting, April 5-16, 2021.

- "Enantioselective synthesis of phenanthridinone analogs with quaternary carbons utilizing the Birch-Heck sequence" Mary Sexton and William P. Malachowski, Abstracts of Papers, 259th ACS National Meeting & Exposition, Philadelphia, PA, United States, March 22-26, 2020.
- "Catalytic enantioselective Birch-Heck reaction sequence for the efficient generation of potentially therapeutic molecules" Alexandra Matei and William P. Malachowski, Abstracts of Papers, 259th ACS National Meeting & Exposition, Philadelphia, PA, United States, March 22-26, 2020.
- "Development of complex chiral phenanthridinone analogs via the enantioselective Birch-Heck reaction sequence" Yelin Jung and William P. Malachowski, Abstracts of Papers, 259th ACS National Meeting & Exposition, Philadelphia, PA, United States, March 22-26, 2020.
- "Enantioselective Birch-Heck synthesis of chiral phenanthridinone analogues" Heidi Coleman and William P. Malachowski, Abstracts of Papers, 259th ACS National Meeting & Exposition, Philadelphia, PA, United States, March 22-26, 2020.
- Enantioselective synthesis of tricyclic ring systems with remote quaternary carbon stereocenters" Amy Gao and William P. Malachowski, Abstracts of Papers, 259th ACS National Meeting & Exposition, Philadelphia, PA, United States, March 22-26, 2020.
- "Catalytic enantioselective Birch-Heck reaction sequence for the efficient generation of potentially therapeutic molecules" Alexandra Matei and William P. Malachowski, 257th ACS National Meeting & Exposition, Orlando, FL, United States, Mar. 31-Apr. 4, 2019.
- "Catalytic enantioselective synthesis of tricyclic ring systems with a remote quaternary carbon center using a Birch-Heck reaction sequence" Madison K. Hogan and William P. Malachowski, 257th ACS National Meeting & Exposition, Orlando, FL, United States, Mar. 31-Apr. 4, 2019.
- "Synthesis of enantiomerically pure carbazole analogs with quaternary carbons via a Birch-Heck reaction" Maham Haider and William P. Malachowski, 257th ACS National Meeting & Exposition, Orlando, FL, United States, Mar. 31-Apr. 4, 2019.
- "Enantioselective construction of tricyclic ring systems with quaternary carbon stereocenters
- Quick View Other Sources" Sabrina Tran and William P. Malachowski, 257th ACS National Meeting & Exposition, Orlando, FL, United States, Mar. 31-Apr. 4, 2019.
- "Construction of tricyclic ring systems via birch reduction/alkylation-Heck reaction" Andrew Krasley and William Malachowski. 252nd ACS National Meeting & Exposition, Philadelphia, August 21-25, 2016.
- "Lewis Acid Mediated Rauhut-Currier Reaction" Andrew Krasley and William Malachowski. 44th National Organic Chemistry Symposium, University of Maryland, College Park, Maryland, June 28 -July 2, 2015
- "Synthesis of inhibitor molecules of indoleamine 2,3-dioxygenase (IDO)" Shorouk Badir and William Malachowski. 44th National Organic Chemistry Symposium, University of Maryland, College Park, Maryland, June 28 July 2, 2015.
- "Synthesis of inhibitor molecules of indoleamine 2,3-dioxygenase (IDO)" Shorouk Badir and William Malachowski. 40th Northeast Regional Meeting of the American Chemical Society, Ithaca, NY, June 10-13, 2015.
- "Complex decalin formation through the use of an asymmetric Rauhut-Currier reaction" Alexandra Friant and William Malachowski. 249th ACS National Meeting & Exposition, Denver, CO, March 22-26, 2015.
- "Synthesis of hydroxylamines as indoleamine-2, 3-dioxygenase inhibitors" Maisha M Rahman, Maria Winters, Eesha Sheikh, William P. Malachowski, George Prendergast, Alexander Muller and James DuHadaway. 244th ACS National Meeting, Philadelphia, August 19-23, 2012.
- "Exploration of enantioselective conjugate additions to a hindered cyclohexenone system" Sarah J Burke, Sharan Mehta, Roselyn Appenteng, William P. Malachowski. 244th ACS National Meeting, Philadelphia, August 19-23, 2012.
- "Curious Cope rearrangement in an enantioselective synthesis" Tina M Ross and William P Malachowski. 244th ACS National Meeting, Philadelphia, August 19-23, 2012.
- "Novel synthesis of 2-alkyl-2-allyl-3-cyclohexen-1-one compounds" Andrew Krasley and William P Malachowski. 244<sup>th</sup> ACS National Meeting, Philadelphia, August 19-23, 2012.

- "Design and synthesis of hydroxylamine derivatives as indoleamine 2,3-dioxygenase inhibitors" Maria Winters, Eesha Sheikh, Maisha Rahman, William P. Malachowski, George Prendergast, Alexander Muller, and James DuHadaway. 244<sup>th</sup> ACS Natioinal Meeting, Philadelphia, August 19-23, 2012.
- "The application of the sequential Birch reduction-allylation/Cope rearrangement to the first enantioselective synthesis of (-)-lycoramine" William P. Malachowski, Tapas Paul, Jisun Lee and Sophia Phounsavath. Gordon Research Conference: Natural Products, July 22-27, 2007.
- "The development of highly potent indoleamine 2,3-dioxygenase (IDO) inhibitors with a pyranonaphthoquinone structure" Sanjeev Kumar, James DuHadaway, Judith LaLonde, William Malachowski, Alex Muller, and George Prendergast. 39th ACS Middle Atlantic Regional Meeting, Ursinus College, May 16-18, 2007.
- "The application of the sequential Birch reduction-allylation/Cope rearrangement to the first enantioselective synthesis of (-)-lycoramine" William P. Malachowski, Tapas Paul, and Sophia Phounsavath. 39th ACS Middle Atlantic Regional Meeting, Ursinus College, May 16-18, 2007.
- "The Enantioselective Birch-Cope Sequence for the Synthesis of Cyclohexyl Quaternary Stereocenters" Tapas Paul, William P. Malachowski and Jisun Lee. Gordon Research Conference: Organic Reactions and Processes, July 16-21, 2006.
- "IDO in Sickness and in Health: Promoting Antitumor Immune Response" William P. Malachowski. The Second Annual Leroy B. Townsend Lecture in Medicinal Chemistry, The University of Michigan, Department of Medicinal Chemistry, May 18, 2006. An invited lecture sponsored by the Leroy B. Townsend Medicinal Chemistry Graduate Students Fund at the University of Michigan, Department of Medicinal Chemistry.
- "Development of Brassinin Derivatives as IDO Inhibitors for Combinatorial Cancer Treatment" Alex J. Muller, Tinku Banerjee, James B. Duhadaway, E. Sutano-Ward, Paul Gaspari, William P. Malachowski, George C. Prendergast. 97th annual meeting of the American Association for Cancer Research, Washington, D.C., April 1-5, 2006.
- "Synthesis of Tryptophan Analogs as Indoleamine 2,3-Dioxygenase (IDO) Inhibitors" Shauna Bennett and William P. Malachowski. Undergraduate Science Research Synposium, Haverford College, October 29, 2005.
- "Synthesis of Brassilexin Derivatives as Indoleamine 2,3-Dioxygenase (IDO) Inhibitors" Ronke Imbeah-Ampiah and William P. Malachowski. Undergraduate Science Research Synposium, Haverford College, October 29, 2005.
- "Sequential Birch reduction-allylation and Cope rearrangement of *o*-anisic acid derivatives" Jisun Lee and William P. Malachowski. Undergraduate Science Research Synposium, Haverford College, October 29, 2005.
- "A General Strategy for the Synthesis of Azapeptidomimetic Lactams" William P. Malachowski, Robert L. Broadrup, Bei Wang, Chenyang Tie, and Katherine Wang. Gordon Research Conference: Heterocyclic Compounds, July 3-8, 2005.
- "Sequential Birch Reductin-Allylation/Cope Rearrangement for the Enantioselective Construction of Carbocyclic Quaternary Stereogenic Centers" William P. Malachowski. 37<sup>th</sup> ACS Middle Atlantic Regional Meeting, Rutgers University, May 22-25, 2005.
- "Sequential Birch Reduction-Allylation/Cope Rearrangement for the Enantioselective Construction of Carbocyclic Quaternary Stereocenters" William P. Malachowski. Temple University Chemistry Department Seminar, March 31, 2005.
- "Synthesis of Thiohydantoin Tryptophan Derivatives as Indoleamine 2,3-Dioxygenase Inhibitors" Ronke Imbeah-Ampiah and William P. Malachowski. Undergraduate Science Research Synposium, Haverford College, November 6, 2004.
- "The Synthesis of Hemiaminals as Potential Protease Inhibitors" Marisha Banerji and William P. Malachowski. Undergraduate Science Research Synposium, Haverford College, Novermber 6, 2004.
- "Cope Rearrangement of Birch Reduction-Allylation Products" William P. Malachowski and Marisha Banerji. 228th ACS National Meeting, Philadelphia, August 22-26, 2004.
- "Design and Synthesis of Peptide Hemiaminals as Protease Inhibitors" Tina Morgan Ross and William P. Malachowski. 228th ACS National Meeting, Philadelphia, August 22-26, 2004.

- "Synthesis of Azapeptide Analogues of Freidinger Dipeptide Lactams" Robert L. Broadup and William P. Malachowski. 228th ACS National Meeting, Philadelphia, August 22-26, 2004.
- "Cope Rearrangement of Birch Reduction-Allylation Products" William P. Malachowski and Marisha Banerji. Gordon Research Conference: Natural Products, July 25-30, 2004.
- "The Design and Synthesis of Peptide Hemiaminals as Protease Inhibitors" Tina Morgan Ross and William P. Malachowski. 15<sup>th</sup> Annual St. Joseph's University Sigma Xi Student Research Symposium, April 23, 2004.
- "The Synthesis of Thiohydantoin Derivatives of Tryptophan as Indoleamine 2,3-Dioxygenase Inhibitors" Sook Chan and William P. Malachowski. 15<sup>th</sup> Annual St. Joseph's University Sigma Xi Student Research Symposium, April 23, 2004.
- "The Design and Synthesis of Peptidomimetic Monocyclic Beta-Lactam Molecules as Potential Inhibitors of Protease Enzymes" William P. Malachowski, Bei Wang, Chenyang Tie, Katherine Wang, Robert L. Broadrup, and Lauren Abrardo. Gordon Research Conference: Proteolytic Enzyme and Their Inhibitors, July 7-12, 2002.
- "Development of a Novel Method for α-Alkyl-α-amino Phosphonic Acid Synthesis" William P. Malachowski and Kristopher M. Paolino. 221st ACS Naional Meeting, San Diego, April 2001.
- Synthesis of a Serine Protease Inhibitor Based on Monocyclic β-Lactams" William P. Malachowski and Lauren A. Abrardo. 221<sup>st</sup> ACS National Meeting, San Diego, April 2001.
- "The Synthesis of Monocyclic Beta-Lactam Inhibitors as Serine Protease Inhibitors" William P. Malachowski. Haverford College Chemistry Department Seminar. March 28, 2001.
- "Design, Syntheses and Structure-activity Relationship Study of Phosphapeptide Inhibitors of Glutathionylspermidine Synthetase." Shoujun Chem, Chun-Hung Lin,,David S. Kwon, William P. Malachowski, Christopher T. Walsh, James K. Coward. 213<sup>th</sup> ACS National Meeting, San Francisco, April 13-17, 1997.

### PROFESSIONAL ORGANIZATIONS

- American Chemical Society member, 1987-present
- Philadelphia Organic Chemists Club, chair-elect, 2007, chair, 2008
- Philadelphia Organic Chemists Club, 2000-present
- Council on Undergraduate Research member, 1997-2003, 2006-present, Institutional Representative, 1998-2000

## SERVICE ACTIVITIES

# Bryn Mawr College

- Graduate Group of Science and Mathematics, Director 2022-date
- Nominations Committee, 2021-date, Chair 2021-2023
- Athletics Department Swim Team Coach Search, June-July 2023
- Organic Chemistry Interim Lecturer Search Committee, February 2022
- Chair of a Physics Ph.D. committee (Tyler DeMann, graduate student supervised by Michael Schulz)
- Biochemistry Assistant Professor Search Committee, October-December 2020 and October-November 2021
- Reviewer of BMC internal applications for the Kaufman Integrated Research-Education Grant, spring 2021
- Chemistry Department writer and organizer for an American Chemical Society Bridge Program Partner Application (the program is an effort to increase the number of chemical science PhDs awarded to underrepresented (UR) students), spring 2021
- Political Science Department Chair (external), spring 2020
- Sponsored Research Office Director Search Committee, 2020
- Organic Chemistry Continuing Non-tenure Track Search Committee, chair, 2019-20
- Faculty Affairs Associate Search Committee, 2019-20
- Organic Chemistry Assistant Professor Search Committee, fall 2018
- Associate Provost, 2016-2020; including service on the Curriculum Committee, the Accessibility Leadership Committee, the Middle States Reaccreditation Committee, the Teaching Evaluations Renewal Committee, the International Coordinating Committee and the International Curricular Initiatives Committee (chair, spring 2019).

- Organic Chemistry Interim Lecturer and Interim Lab Supervisor Search Committee, March-June 2018
- Institutional Grants Director Search Committee, January-June 2018
- MD Anderson Cancer Center Summer Undergraduate Research Program Bryn Mawr College application review committee, January 2017, 2019, 2020, and 2022.
- Biochemistry and Molecular Biology Major Adviser, fall 2017-spring 2020
- Recruiting Activities fall 2016: Senior Stay Dinner, Oct. 18, 2016; Prospective STEM Student Tea, Oct. 3, 2016.
- Organic Chemistry and General Chemistry Interim Lecturer Search, June-July 2016
- Organic Chemistry Interim Lab Instructor, April 2016
- Recruiting Activities, fall 2015: Senior Stay Dinner, Nov. 3, 2015; Prospective STEM Student Tea, Oct. 26, 2015; spring 2016: Open House STEM Academic Teas, Feb. 15, Apr. 14 and Apr. 18.
- Graduate Council, fall 2014-spring 2017
- General Chemistry CNTT Search Committee, chair, fall 2015
- Chemistry Major Adviser, fall 2015
- Custom's Week Academic Adviser, August 2015
- Bryn Mawr College Alumnae Reunion Weekend speaker, May 29, 2015
- General Chemistry Interim Lab Supervisor Search Committee, March-April 2015
- Provost Search committee member, 2014-2015
- Postbaccalaureate Premedical Program Director Search Committee, 2014-2015
- Chemistry Summer Post-baccalaureate CNTT Search Committee chair, fall 2014
- Career and Professional Development Director Search Committee, July 2014
- Faculty Fellow for Bryn Mawr College Athletics Dept., 2013-present
- Chair of the Science Chairs, fall 2013, fall 2014-spring 2016
- Supervisor of the Bio-Chem-Geo administrative assistants, 2013-2016
- Chemistry Department Chair, 2011-fall 2013, fall 2014-summer 2016
- Chemistry Department representative to Institutional Review Board, fall 2014-2016
- Faculty STEM representative at Prospective Student Academic Fair, Oct. 27, 2014
- Organic Chemistry Interim Lab Supervisor Search chair, August 2013
- Organic Chemistry Assistant Professor Search Committee chair, fall 2011
- Nuclear Magnetic Resonance Instrument Supervisor, 2000-2012
- Committee on Appointments, 2009-2013, 2012-13 chair
- GSAS luncheon discussion on fellowships and grant-writing, September 27, 2012
- Science Support Services Department staff position search, July-August 2012
- Emergency Marshall at Convocation and Commencement, 2009-2010, 2012, 2016-2019
- Organized Chemistry Dept. Senior Seminar Presentations, April 2010
- Grant-writing workshop reviewer, April 2010
- New Faculty Luncheon on Sponsored Research, advisor, Nov. 19, 2009
- Custom's Week Academic Adviser, August 2008
- Steering Committee of the Center for Science and Society, 2007-2009
- Organized the purchase and installation of a new LC-MS instrument in Chemistry, summer 2008
- Committee on Faculty Awards and Grants, 2007-10
- Director of Graduate Studies in Chemistry, 2001-03, 2004-06, 2007-09
- Ecology Faculty Search Committee, Faculty Diversity Representative, fall 2008
- Summer Undergraduate Research Poster Session Judge, September 2008
- First-year Academic Advising, August 2008
- Consortium for Faculty Diversity Post-doctoral Fellowship Committee, chair, winter 2008
- Bryn Mawr College Parents Weekend, Faculty Speaker, Nov. 3, 2007
- Howard Hughes Medical Institute Award Advisory Committee, 2004-06
- Graduate Council (Graduate Awards Subcommittee, Special Cases Subcommittee), 2004-06
- Post-baccalaureate Orientation 2004-05 and 2008, Chemistry Department Representative
- Physical Chemistry Faculty Search Committee 2004-05
- Assistant Director of Graduate Studies in Chemistry, 2000-01

#### Extramural

- Peer reviewer for manuscripts from the Journal of the American Chemical Society, Chemical Science, Journal of Organic Chemistry, European Journal of Organic Chemistry, European Journal of Medicinal Chemistry, Tetrahedron Letters, Nature Protocols, Bioorganic and Medicinal Chemistry, Bioorganic and Medicinal Chemistry Letters, Organic Letters, Synthesis, Organometallics, ARKIVOC and Amino Acids
- National Science Foundation CAT Transition Metal Catalysis Grant Panel, January 2022
- Peer reviewer for grants from the Research Corporation, American Chemical Society, Belgian Scientific Research Fund (F.R.S.-F.N.R.S.), and the National Science Foundation
- Ohio University, The Department of Chemistry and Biochemistry, Seven-Year Review Committee, External Reviewer, December 2015
- Ph.D. examiner for Griffith University, Australia, December 2015
- National Institutes of Health Synthetic and Biological Chemistry A Study Section Panel, February 2014
- National Science Foundation Major Research Instrumentation (MRI) Program Grant Panel, July 2010
- National Institutes of Health 'Pilot-Scale Libraries' Roadmap Review Panel, July 2009
- National Science Foundation Major Research Instrumentation (MRI) Program Grant Panel, May 2008
- Philadelphia Organic Chemist's Club, 2000-present, chair-elect 2007-08, chair 2008-09
- Arcola Intermediate School Science Fair Judge, January 2009 and 2010
- Science Fair Demonstrator at Eagleville Elementary School Science Fair, February 2007
- Mainline School Night Science Series Presenter, April 2007
- Eagleville Elementary School Science Fair Assistant (Set-up and Judge), 2003-5