

*Curriculum vitae*  
**Dr. Cecilia Holloran Marzabadi**  
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## **Education**

|         |   |
|---------|---|
| A.B.    | St. Louis University, St. Louis, Missouri, 1982             |
| M.S.(R) | St. Louis University, St. Louis, Missouri, 1984             |
| Ph.D.   | University of Missouri-St. Louis, St. Louis, Missouri, 1994 |

## **Chronology**

|               |  |
|---------------|--|
| 1978-1982     | Laboratory Technician (microbiology), St. Mary's Hospital, St. Louis, Missouri   |
| 1982 (Summer) | Medical Technologist (immunology), Smith-Kline Clinical Labs, St. Louis, Missouri  |
| 1982-1984     | Teaching Assistant, St. Louis University, St. Louis, Missouri  |
| 1984-1986     | Research Chemist II (metabolism), Monsanto Agricultural Product Company, St. Louis, Missouri   |
| 1987-1989     | Laboratory Technician (molecular biology), Washington University, St. Louis, Missouri  |
| 1989-1992     | Teaching Assistant, University of Missouri-St. Louis, St. Louis, Missouri  |
| 1992-1994     | Research Assistant, University of Missouri-St. Louis, St. Louis, Missouri  |
| 1994-1999     | Post-Doctoral Research Associate, Hunter College-CUNY, New York, New York  |
| 1996-1999     | Adjunct Professor of Chemistry, Hunter College-CUNY, New York, New York  |
| 1999-2004     | Clare Boothe Luce Assistant Professor of Chemistry, Seton Hall University, South Orange, New Jersey                                    |
| 2001-Present  | Adjunct Appointment in Women's Studies Program, Seton Hall University, South Orange, New Jersey  |
| 2005-2012     | Associate Professor of Chemistry<br>Seton Hall University, South Orange, NJ  |
| 2005-2006     | Acting Director, Center for Women's Studies<br>Seton Hall University, South Orange, NJ   |
| 2006-2007     | Visiting Associate Professor, Laboratory of Prof. Dennis Kasper, Department of Medicine, Harvard University Medical School, Boston, MA |

|                 |   |
|-----------------|---|
| 2009-2013, 2015 | Director of Graduate Studies, Department of Chemistry and Biochemistry, Seton Hall University, South Orange, NJ                             |
| 2009-2013, 2015 | Associate Chair, Department of Chemistry and Biochemistry, Seton Hall University, South Orange, NJ  |
| 2012-Present    | Professor, Department of Chemistry and Biochemistry, Seton Hall University, South Orange, NJ 07079  |
| 2013-2015       | Visiting Researcher, Laboratory of Prof. S. J. Danishefsky, Memorial Sloan Kettering Cancer Center, Rockefeller Research Labs, New York, NY |
| 1/2016-Present  | Chair, Department of Chemistry and Biochemistry, Seton Hall University, South Orange, NJ 07079  |

### **Research Interests**

Synthetic carbohydrate chemistry; medicinal chemistry (CNS, vaccines, cancer); conformational analysis of carbohydrates; recruitment and retention of women in STEM disciplines.

### **Books**

“Mom the Chemistry Professor,” Renee Cole, Cecilia Marzabadi, Gail Webster and Kimberly Wozniak, eds. Springer, 1<sup>st</sup> Ed., July 2014.  
2<sup>nd</sup> Ed., *In preparation*, Planned for Fall 2018.

“Dissolving Disparity, Catalyzing Change: Are Women Achieving Equity in Chemistry?”, C. H. Marzabadi, V. J. Kuck, S. A. Nolan, and J. B. Buckner, eds. , ACS Symposium Series Book, Oxford University Press, 2006.

### **Chapters**

Basava, V.; Hanawa, E.; Marzabadi, C. H. “The Preparation and Reactions of 3,6-Anhydro-D-Glucals,” **Domino and Rearrangement Reactions in Glycoscience**, (John Wiley & Sons, 2016) ISBN # [9781119044208](#)

Marzabadi, C. H. “Wanting it All,” **Mom the Chemistry Professor**, R. Cole, C. Marzabadi, G. Webster and K. Wozniak, (Eds.) New York, NY, Springer, Inc., 2014.

Marzabadi, C. H.” Chemistry”. **Women, Science, and Myth: Gender Beliefs from Antiquity to the Present**, S. V. Rosser (Ed.) Santa Barbara, CA: ABC-CLIO, Inc., 2008.

Marzabadi, C.; DeCastro, M. “Iodoamidation of Glycals: A Facile Preparation of 2-Deoxy-N-glycosylamides “, **Frontiers in Modern Carbohydrate Chemistry**, ACS Symposium Series Book, Oxford University Press, 2007, 50-58.

Marzabadi, C. “Findings from the ACS Career Continuity Survey: Elucidating Gender Patterns in Training and Career Paths,” **Dissolving Disparity, Catalyzing Change: Are Women**

**Achieving Equity in Chemistry?**, Marzabadi, C., Kuck, V., Nolan, S., Buckner, J. eds. ACS Books, Oxford University Press, 2006, 89-106.

Marzabadi, C. "2-[(1-Acetyl-2-oxopropyl)thio]-1*H*-Isoindole-1,3(2*H*)-dione," **Electronic Encyclopedia of Reagents for Organic Synthesis**, John Wiley & Sons, New York, 2004.

### Journal Articles

Eltayeb, S.; Marzabadi, C. "Synthesis of Pyranobenzopyrans from D-glucal using Ionic Liquids," **In Preparation**.

Basava, V.; Romlein, H.; Bitsaktis, C.; Marzabadi, C.H. "Synthesis and immunological evaluation of a low molecular weight saccharide with TLR-4 agonist activity," **Bioorg. Med. Chem.** (2017) 25, 697-705.

Marzabadi, C. H.; Franck, R.W. "Small Molecule Carbohydrate-based Immunostimulants," **Eur. J. Chem.** (2016) 22, 1-16. DOI: 10.1002/chem.201601539.

Meyerhoefer, T. J.; Kershaw, S.; Caliendo, N.; Eltayeb, S.; Hanawa-Romero, E.; Bykovskaya, P.; Huang, V., Marzabadi, C. H., De Castro, M. "A Practical Synthesis of Various 2-Deoxy-*N*-glycosides by Using D-Glucal," **Eur. J. Org. Chem** , (2015) 11, 2457-2462.

Basava, V. B.; Gorun, S.; Marzabadi, C. H. "An Improved Synthesis of 3,6-Anhydro-D-glucal and a Study of its Chemical Reactivity," **Carbohydr. Res.** (2014), 391, 106-111.

Patel, P.; Hanawa, E; Marzabadi, C.; Sabatino, D. "Synthesis, DNA binding and Anti-Leukemic Activity of an Aminoacyl Nucleolipid", **Bioorg. Med. Chem. Lett.** (2013), 23, 5086-90.

Vega, E.; Marzabadi, C. H.; Kazakevich, Y.; Fadeev, A. "New Silica Adsorbents with Well-Defined Oligo(Saccharide) Surfaces: Synthesis and Use For Stereo-Separations in Reverse and Normal Phase HPLC, " **Chromatographia** (2013), 1-9.

Reid, E. M.; Vigneau, E. S.; Gratia, C. S.; Marzabadi, C. H.; De Castro, M. "One-Pot Synthesis of *N*-Glycooxazolines, *N*-Glycoaminooxazolines, and *N*-Glycothiazolines from Glycals, " **Eur. J. Org. Chem.** (2012), 17, 3295-3303.

Vega, E.; Marzabadi, C. H.; Kazakevich, Y.; Fadeev, A. "Synthesis of SBA-15 with Chemically Bonded Silane Peracetylated-1-thiosaccharides Under Mild Acidic Conditions for Potential Chiral Recognition," **J. Colloid Interface Sci.** (2011) 359(2), 542-544.

Chapman, S.; Dixon, F. F.; Foster, N.; Kuck, V. J.; McCarthy, D. A.; Tooney, N. M. Buckner, J. P.; Nolan, S. A.; Marzabadi, C. H.. "Women Faculty Members in University Chemistry Departments: Observations and Conclusions Based on Site Visits," **J. Chem. Ed.** (2011) 88 (6), 716-720.

Dobbelaar, P. H.; Marzabadi, C. H. "Povarov Reactions of *exo*-Glycals: Preparation of

- C-linked, Sugar-Based Quinolines," *Tetrahedron* (2011) 67, 9273-9282.
- DeCastro, M.; Marzabadi, C. H. "Preparation and Reactions of Iodo Sugars," *Tetrahedron* (2010), 66, 3395-3404.
- Dobbelaar, P.; Marzabadi, C. H. "Facile One-Pot Method for the Synthesis of Novel Glycosylidene-Based Quinolines," *Tetrahedron Lett.* (2009), 51, 201-204.
- Talisman, J.; Marzabadi, C. H. "Carbohydrates in the Treatment of Epilepsy, Depression and Other Affective Disorders", *Curr. Top. Med. Chem.* (2008), 8, 159-170.
- Nolan, S. A.; Buckner, J. B.; Marzabadi, C. H.; Kuck, V. J. "Training and Mentoring of Chemists: A Study of Gender Disparity", *Sex Roles* (2008), 58, 235-250.
- Marzabadi, C. H. Book Review "Heterocycles from Carbohydrate Precursors" Topics in Heterocyclic Chemistry, Edited by El Sayed H. El. Ashry, Springer, 2007. *J. Am. Chem. Soc.* (2008) 130 (9), 2879.
- Kuck, V. J., Buckner, J. B., Nolan, S. A.; Marzabadi, C. H. "Determination of the Dissertation Advisors of the Faculty Members at the Top Fifty Ranked Chemistry Departments", *J. Chem. Ed.* (2007), 84, 277-284.
- De Castro, M.; Marzabadi, C. H. "Heterocycle-Substituted Carbohydrate Oxazolines", *J. Carbohydr. Chem.* (2005), 24, 179-185.
- De Castro, M.; Marzabadi, C. H. "The Preparation of 2-Iodoamides from Glucals and their Further Transformations into Oxazolines", *Tetrahedron Lett.* (2004), 45, 6501-6504.
- Kuck, V.J.; Marzabadi, C.H.; Nolan, S.A.; Buckner, J.P. "Analysis by Gender of the Doctoral and Post-doctoral Institutions of Faculty Members at the Top Fifty Ranked Chemistry Departments" *J. Chem. Ed.* (2004) 81, 356-363.
- Marzabadi, C. H.; Anderson, J. E.; Gonzalez-Outeirino, J.; Gaffney, P. R.; White, C. G.; Tocher, D. A.; Todaro, L. J. "Why Are Silyl Ethers Conformationally Different from Alkyl Ethers? Chair-Chair Conformational Equilibria in Siloxycyclohexanes and Their Dependence on the Substituents on Silicon. The Wider Roles of Eclipsing, of 1,3-Repulsive Steric Interactions, and of Attractive Steric Interactions" *J. Am. Chem. Soc.* (2003), 125 (49), 15163-15173.
- Ferguson, J.; Marzabadi, C. H. "On-Resin Generation and Reactions of Orthogonal Glycosyl Donors" *Tetrahedron Lett.* (2003), 44(17), 3573-3577.
- Marzabadi, C. H.; Schinazi, R.; Franck, R. W. "The Synthesis and Biological Evaluation of Novel Bridging Nucleoside Analogs", *Bioorg. Med. Chem.* (2002), 10, 273-281.
- Marzabadi, C.; Franck, R. W. "The Synthesis of 2-Deoxy-Glycosides: 1988-1999" *Tetrahedron* (2000), 56, 8385-8417.

Dios, A.; Geer, A.; Marzabadi, C.; Franck, R. W., "A Novel Heterocycloaddition Reaction of Glycals", *J. Org. Chem.* (1998), *63*, 6673-6679.

Franck, R. W.; Marzabadi, C. H., "Novel Bicyclic Donors for the Synthesis of 2-Deoxy- $\beta$ -Glycosides", *J. Org. Chem.* (1998), *63*, 2197-2208.

Kozlowski, J., Marzabadi, C., Rath, N., Spilling, C.D., "The Chemistry of Glucal Halohydrins (II): An Unusual Protecting Group Effect in the Competitive Formation of Formyl Furanosides and Methyl Glycosides", *Carbohydr. Res.* (1997), *300*, 301-313.

Capozzi, G., Dios, A.; Franck, R. W.; Geer, A.; Marzabadi, C. H., Menchetti, S., Nativi, C., Tamarez, M., "Novel Bicyclic Donors for the Synthesis of 2-Deoxy- $\beta$ -Glycosides", *Angew. Chem. Int. Ed. Engl.* (1996), *35*, 777-779

Marzabadi, C. H.; Franck, R. W. "A Novel Donor for the Synthesis of 2-Deoxy- $\beta$ -Glycosides", *J. Chem. Soc. Chem. Commun.* (1996), 2651-2652.

Marzabadi, C.; Spilling, C. D.; Tyler, L., "The Chemistry of Glucal Halohydrins: The Effect of Halide on Epoxide Formation," *Tetrahedron* (1994), *50*, 6783-6796.

Marzabadi, C., Spilling, C. D. "Stereoselectivity in Glucal Epoxide Formation", *J. Org. Chem.* (1993), *58*, 3761-3766.

### **Patents**

"Cyclopropanated Carbohydrates", Marzabadi, Cecilia H.; Talisman, Ian Jamie, PCT. (2012), US 8,222,218 B2.

### **Abstracts Published**

"Synthesis and immunological evaluation of a low molecular weight saccharide with TLR-4 agonist activity," Basava, V.; Marzabadi, C. H.; Bitsakstis, C., BMS-01, The 28<sup>th</sup> Annual Dr. George Perez Research Colloquium, Seton Hall University, April 28, 2017.

"Synthesis of novel carbohydrate compounds for potential CNS-drugs," Hanawa-Romero, E.; Marzabadi, C. H.; Talisman, I. J. T., BMS-05, , The 28<sup>th</sup> Annual Dr. George Perez Research Colloquium, Seton Hall University, April 28, 2017.

### **Selected Media Exposure**

Cohen M., Book review, "Mom the Chemistry Professor," *The American Math Monthly*, Vol. 124 (4), April 2017.

Jacobs, D. L., Book review, "Mom the Chemistry Professor," *Choice*, Vol. 52 (7), March, 2015.

Bodewits, K., Book review, "Mom the Chemistry Professor," *Chemistry World*, 18 November 2014), [http://rsc.li/CW\\_141208](http://rsc.li/CW_141208)

Nikolchev, A. (2011, July) Girls win big at Google science fair. <http://www.pbs.org/wnet/need-to-know/the-daily-need/girls-win-big-at-google-science-fair/10464/>

Jaschik, S. The mentoring gap for women in science. *Inside Higher Ed*. (2008, February 28).

Association for Women in Science (February, 2008). Study finds mentoring gap for women in science. *Washington Wire, Issue II*.

Pirates in print: Are women achieving equity in chemistry? Dissolving disparity and catalyzing change. (Winter/Spring, 2007). *Seton Hall Alumni Magazine*, p. 38.

Breaking down the barriers: Seton Hall scientists and women's studies faculty make startling discoveries about gender differences among professional chemists. (Winter, 2007). *Science at the Hall* 4, 2.

Richmond, G. L. (2006, November 27). Women in science: Two new books offer women scientists helpful career strategies, insightful perspectives. *Chemical and Engineering News*, 84(48), 34-35.

Egbert, M. J. (2005, March 3). Female scientists don't get same chance to advance. *Asbury Park Press*, Asbury Park, NJ.

Wilson, R. "Tales of Academic Parenthood, Continued". Column in *Chronicles of Higher Education*, April 29, 2005.

Participant in ACS Project SEED promotional video; released at 229<sup>th</sup> ACS National Meeting, San Diego, CA, March 13-17, 2005.

### **Appointments**

Women Chemists Committee of American Chemical Society 2012- Present

Elizabeth Anne Seton Center for Women's and Gender Studies, Advisory Board, 2012-2015.

### **Service (Departmental)**

Graduate Admissions/Advising Committee, 2007-2013, 2015-

Undergraduate Curriculum Committee, 1999-2007, 2014-2015

Undergraduate Recruiting and Advising Committee, 1999-2007

Chemistry Club Faculty Advisor, 2001-2007

McNulty Hall Safety Committee, 2001-2003

Project SEED Coordinator – 2002-2013, 2014-2015

Faculty Search Committee 2014-Present.

### **University and College Activities**

College of Arts and Sciences, Rank and Tenure Committee, 2012-2013, 2015-Present  
University Assessment Committee 2016-

Internal Program Reviewer (Department of Psychology) Fall 2016.

Faculty Senate Graduate Studies Committee (2012-2014)

College Planning Committee (2011-2014)

University 3.7d Committee (2010-2012)

College of Arts and Sciences, Graduate Strategic Plan Implementation Committee (co-chair),  
2009-2010

University Finances and Resources Strategic Planning Committee, 2009 (Co-Chair with  
Associate Provost Greg Burton)

Member Graduate Council, 2009-2010

Clare Boothe Luce Scholarship Committee, 2000-2014

Faculty Senate, 2001-2002, 2004 (Alternate), 2002-2004, 2005-2006, 2007-2009 (Senator)

SHUCAP Mentor, 2000-2006.

Arts and Sciences, Nominations and Elections Committee, 2001-2003. Chair, 2001-2002.

Faculty Senate Compensation and Welfare Committee, 2001-Present.

Faculty Senate Library Committee, 2002-2006; (Chair) 2002-2004.

Arts and Sciences, Human Rights and Dignity Committee, 2005-2006.

Faculty Senate Academic Facilities Committee, 2008-2009 (Chair)

Faculty Senate Faculty Development Committee (2007-2009)

Charter Day Committee Member, 2002.

Seton Hall University Libraries Advisory Committee, 2003

Human Relations Council, 2005-2006.

Human Relations Training and Development Committee, 2005-2006

University Faculty Grievance Committee 2014-2015

### **Professional Activities**

Member - American Chemical Society, 1983-Present

Member – Divisions of Organic Chemistry and Carbohydrate Chemistry (ACS)

Member – New York Academy of Sciences, 1996-2008

Member – American Association of University Women, 1998-Present

Member – American Women in Science, 2009, 2012

Member – Phi Kappa Phi, 1978-Present

Member – Organizing Committee North Jersey ACS Organic Topical Group – 2000-2003; Chair 2003

North Jersey ACS, Alternate Councilor, 2006-Present.

Journal Editorial Board - **Biomolecules**

Reviewer – **Journal of Organic Chemistry, Tetrahedron, Tetrahedron Letters, Journal of American Chemical Society, Journal of Carbohydrate Chemistry, Carbohydrate Research, Synlett, Bioorganic and Medicinal Chemistry, Journal of Women and Minorities in Science and Engineering, Chemical Reviews**

ACS Project SEED Mentor – 2000-2012

Partners in Science Mentor – 2001-2004



North Jersey ACS Baekeland Award Jury 2001

“Green Chemistry” symposium – Organizing Committee, June 2003

Organic Chemistry Program Chair – ACS MARM 2005

Faculty Mentor for Academic Careers in Chemistry (ACC) workshop, Spring 2004, Fall 2005

Division of Carbohydrate Chemistry, American Chemical Society, Executive Committee,  
Member at Large 2015-2017

National Award Committee, American Chemical Society 2013-Present

WCC Overcoming Challenges Award Committee 2015

Merck Travel Awards for Women 2016-Present

NSF MRI Review Panel 4/15, 4/16

### **Consulting**

Marzabadi, C.M., Buckner, J.P., & Nolan, S.A. (2004). *PROGRESS: Strengthening our Academic Foundations*. three-year consulting contract through an ADVANCE award from the National Science Foundation.

Nolan, S.A., Marzabadi, C.M., & Buckner, J.P. (2003). *PROGRESS pilot: Strengthening our Academic Foundations*. consulting contract through a grant from the American Chemical Society.

### **Symposia Chaired**

Marzabadi, C. H.; Cole, R. (2014, August) “Mom the Chemistry Professor,”  
Symposium presented at the 248<sup>th</sup> ACS National Meeting, San Francisco, CA.

Marzabadi, C.H., Kuck, V.J., Nolan, S.A., & Buckner, J.P. (2003, September).  
“Dissolving Disparity, Catalyzing Change: Are Women Achieving Equity in Chemistry?”  
Symposium presented at the 226<sup>th</sup> ACS National Meeting, New York City.

Nolan, S.A., Buckner, J.P., Marzabadi, C., & Kuck, V. (2003, March). “The Changing Role of Women in STEM.” Symposium presented at the 225<sup>th</sup> ACS National Meeting, New Orleans, LA.

## Selected Presented Papers (Meetings)

### Chemistry

“Synthesis and evaluation of a small molecule carbohydrate with immunomodulatory properties,” Cecilia E. Marzabadi, Vikram Basava, Heather Romlein and Constantine Bitsaktis, 28<sup>th</sup> International Carbohydrate Symposium, New Orleans, LA. July 19, 2016.

“Synthesis of novel carbohydrate compounds for potential CNS drugs”, Eme Hanawa-Romero, Cecilia E. Marzabadi, 28<sup>th</sup> International Carbohydrate Symposium, New Orleans, LA. July 18, 2016.

“Preparation of O- and N-Heterocycles via Glycal Addition Reactions,” Sumiea ElTayeb, Kyle Brogden, Peter Dobbelaar and Cecilia Marzabadi, 250<sup>th</sup> National ACS Meeting, Boston, MA. 08/15

“Carbohydrate-based small molecules with immunostimulatory properties,” Cecilia Marzabadi, Vikram Basava, Constantine Bitsaktis and Emi Hanawa, “Carbohydrate-based small molecules with immunostimulatory properties”, 249<sup>th</sup> National ACS Meeting, CARB 39, Denver, CO., 03/24/15

“3,6-Anhydro-D-glycals: The study of their unusual structures and chemical reactivity,” Cecilia H. Marzabadi, Vikram Basava and Sergiu Gorun, CARB 13 (248<sup>th</sup> National ACS Meeting, San Francisco, CA), 8/11/14.

“Synthesis of cyclic compounds from D-glucal using ionic liquids,” Sumiea ElTayeb and Cecilia Marzabadi, CARB 75 (247<sup>th</sup> ACS National Meeting, Dallas, TX), 3/18/14.

“Synthesis of Novel Carbohydrate-based Diazepanes and Diazocanes”, CARB 66 (244<sup>th</sup> ACS National Meeting, Philadelphia, PA) 8/20/12.

“The Preparation and Evaluation of Some Novel C-linked Carbohydrate Quinoline Hybrids,” Kyle N. Brogden, Peter H. Dobbelaar, Katherine Konchalski and Cecilia H. Marzabadi, (MARM 2011, College Park, MD), May 2011.

“Reactions of glycals with *ortho*-substituted benzanilines,” Cecilia H. Marzabadi and Katherine Konchalski, CARB (240<sup>th</sup> ACS National Meeting, Boston, MA) 8/26/10.

“Deoxy sugar analogs for the treatment of epilepsy,” Cecilia H. Marzabadi and Jamie Talisman, MEDI 324 (238<sup>th</sup> ACS National Meeting, Washington, D. C.) 8/19/09.

“Facile one-pot method for the synthesis of novel glycosylidene-based quinolines,” Peter H. Dobbelaar and Cecilia H. Marzabadi, ORGN 709, (238<sup>th</sup> ACS National Meeting, Washington, D. C.) 8/19/09.

## **Women in Science**

“Wanting it all,” Cecilia H. Marzabadi, WCC 12, (248<sup>th</sup> National ACS Meeting, San Francisco, CA), 8/11/14.

“Eye of the Beholder: Gender and Perceptions of Mentoring in Science Education,” Susan A. Nolan, Cecilia H. Marzabadi, Janine P. Buckner, NARST Meeting, Garden Grove, CA., 4/21/09.

“Institutional interventions: Practices aimed at increasing the presence of women in science, technology, engineering, and mathematics (STEM) fields,” Cecilia H. Marzabadi, Janine P. Buckner, Susan A. Nolan, and Valerie J. Kuck, IWPR conference in Atlanta, GA., April 11, 2008

“Focus Group Findings from PROGRESS Study.” Cecilia H. Marzabadi, Janine P. Buckner and Susan A. Nolan, WCC 38, (234<sup>th</sup> ACS National Meeting, Boston, MA), 8/22/07.

“Gender Patterns in Training and Career Paths of Doctoral Students from Top-ranked Chemistry Departments”, Cecilia H. Marzabadi; Janine P. Buckner; Susan A. Nolan; Valerie J. Kuck, 37<sup>th</sup> Middle Atlantic Regional ACS Meeting, New Brunswick, NJ, (May 24, 2005).

“A Comparison of the Doctoral Achievement Rates in STEM Fields: Does Gender Affect the Yields?”, Valerie J. Kuck, Janine P. Buckner, Cecilia H. Marzabadi, Susan A. Nolan, 37<sup>th</sup> Middle Atlantic Regional ACS Meeting, New Brunswick, NJ, (May 24, 2005).

“Examining the Role of Undergraduate Training in the Academic Career Path: Does Gender Matter?”, Buckner, J. B.; Kuck, V. J.; Marzabadi, C. H.; Nolan, S. A., 229<sup>th</sup> National ACS Meeting, San Diego, CA. (March 2005).

“Analysis of the Doctoral Training of Faculty Members at the Top Fifty Ranked Chemistry Departments”, Kuck, V.; Marzabadi, C., Buckner, J.; Nolan, S., 18<sup>th</sup> BCCE Symposium, Ames, IA (July 2004).

“Graduate Training and Early Career Choices of Chemistry Doctorates”, Buckner, J., Nolan, S., Kuck, V. and Marzabadi, C., 18<sup>th</sup> BCCE Symposium, Ames, IA (July 2004).

“Mentoring Women in the Physical Sciences: A Panel Discussion,” Marzabadi, C.H.; Kuck, V.J.; Nolan, S.A.; Buckner, J.P. Workshop at the Seton Hall University Women’s Conference, South Orange, NJ. (March 2004).

“Women in Science: Continuing Inequalities and Their Implications for Policy.” Buckner, J.P.; Nolan, S.A.; Kuck, V.J.; Marzabadi, C.H. International Women’s Policy Research Conference, Washington, D.C., (June 2003).

## **Selected Invited Talks**

“Carbohydrate Small Molecules as Potential Therapeutic Agents, “Department of Biological

Sciences, Seton Hall University, February 16, 2017.

“Preparation of O- and N-Heterocycles via Glycal Addition Reactions,” Sumiea ElTayeb, Kyle Brogden, Peter Dobbelaar and Cecilia Marzabadi, Villanova University, Villanova, PA. 03/16

“Preparation of O- and N-Heterocycles via Glycal Addition Reactions,” Sumiea ElTayeb, Kyle Brogden, Peter Dobbelaar and Cecilia Marzabadi, Wilkes University, Wilkes-Barre, PA., 10/21/15.

“Mom the Chemistry Professor,” University of Missouri-St. Louis, St. Louis WCC, March 8, 2015.

“3,6-Anhydro-D-glycals: The study of their unusual structures and chemical reactivity”, 248<sup>th</sup> ACS National Meeting, San Francisco, CA, August 8, 2014.

“Why Do Men Still Dominate in the Hard Sciences?” Panel Discussion, The Margaret and Herman Sokol Lecture Series, Montclair State University, April 10, 2013.

“Retention in the Sciences”, EPA STAR Conference, Washington, D.C., September 19, 2011.

“Summer Research and Project SEED: A Perfect Fit”, Cecilia H. Marzabadi, 236<sup>th</sup> National ACS Meeting, Philadelphia, PA., PRES 09,(August 18, 2008)

“Engendering Success: Achieving Academic Retention and Promotion Of Women In Science, Engineering, and Mathematics”, Cecilia H. Marzabadi, Susan A. Nolan and Janine P. Buckner. Keynote lecture, Office for the Promotion of Women in Science, Engineering and Mathematics, Rutgers University (May 15, 2008).

“Activation of Innate Immunity by a Capsular Saccharide from *B. fragilis*”, Department of Biological Sciences, Seton Hall University, March 2008.

“Activation of Innate Immunity by a Capsular Saccharide from *B. fragilis*”, Texas Woman’s University, February 29, 2008.

### **External Grants Received**

National Science Foundation, \$140,264, “MRI:Acquisition of a Bench-Top Flow Cytometer for Multi-Disciplinary Research and Education at Seton Hall University,” 9/1/13 to 9/1/16 .

National Science Foundation, \$387,814, “GDSE/RES Study of the Role of Gender in the Training and Career Paths of Women and Men in STEM,” 8/1/03-8/1/06.

National Science Foundation, \$ 14,478, “Conference: Dissolving Disparity, Catalyzing Change: Are Women Achieving Equity in Chemistry,” 8/1/03-7/31/06.

National Science Foundation, \$ 270,000 with \$ 193,000 in match from SHU, “Expansion of the NMR Facilities in the Department of Chemistry at Seton Hall University and Acquisition of a 400 MHz NMR Spectrometer,” 3/15/01-3/15/02 (Departmental).

State of New Jersey, \$353,087, “Acquisition of Instrumentation to Enhance Research Capacity for the Department of Chemistry and Biochemistry at Seton Hall University,” 11/00-11/01(Departmental)

ACS -Petroleum Research Fund, \$35,000, “A Solid Phase Approach to the Synthesis of Cyclic Oligosaccharides”, 1/02-8 /04.

Camille and Henry Dreyfus Foundation Special Grant, \$50,000, “The Training and Hiring of Chemical Scientists: A Study of Gender Inequities”, 3/02-12/04.

National Science Foundation, \$140,264, “MRI:Acquisition of a Bench-Top Flow Cytometer for Multi-Disciplinary Research and Education at Seton Hall University”, 9/1/13 to 9/1/16 .

### **Pending External Grants**

National Science Foundation, \$ 676,905, “MRI: The Acquisition of an Ion Mobility QTOF LC/MS for Multidisciplinary Research and Education, Department of Chemistry & Biochemistry, Seton Hall University (RUI)

Spencer Foundation \$27,500, Shojania-Feizabadi, M.; Balkun, M.; Marzabadi, C. “Enhancing Science Teaching Effectiveness in an Environment with Diverse Learner Skills.” *Declined*

Howard Hughes Medical Institute – Buckner, J. B.; Fisher, P.; Marzabadi, C, H. - “Towards Greater Inclusivity for Diverse Learners at Seton Hall University: Addressing the STEM Watershed in a Major Life Sciences Innovation Hub,” preproposal submitted, HHMI institutional grant, 12/4/16. *Not Invited for Full Proposal*

### **Internal Grants Funded**

Seton Hall University Research Council, “Are We Ignoring History? An Analysis of Citations in Recent Chemistry Articles,” joint with Lisa Rose Wiles, \$10000, *Summer 2017*.

Seton Hall University Research Council, “The Synthesis of Septanose Sugars”, \$7000, *Summer 2006*.

Seton Hall University Research Council, “Cyclic Carbohydrate Derivatives”, \$6000, *Summer 2000*.

## **Honors and Awards**

Marzabadi, C. H. (2008). *Provost's Scholarship Award* for journal article co-Authored with Susan A. Nolan, Janine P. Buckner, and Valerie J. Kuck.

Marzabadi, C. H. (2006). *Provost's Scholarship Award* for book co-edited with Susan A. Nolan, Janine P. Buckner and Valerie J. Kuck.

Nominated for Marquis' Who's Who in America 2012

Marquis' Who's Who in Science and Engineering 2011

Nominated for *Manchester Who's Who Among Executive and Professional Women* 2004

Nominated for *Who's Who in Science and Higher Education* 2004

ACS Project SEED Service Awards, September 2003 and August 2008.

Student Affiliates Section Award, "Honorable Mention", American Chemical Society, 2002 – Faculty Advisor

Clare Boothe Luce Professor (1999-2004)

University of Missouri – St. Louis, Dissertation Fellowship, 1993

University of Missouri – St. Louis, Summer Alumni Research Fellowship, 1992

University of Missouri, St. Louis, Chancellor's Fellowship, 1989-1992.

Outstanding Teaching Assistant Award, University of Missouri, 1991.

## **Recent Collaborators**

Dr. James Stables (NINDS, NIH)

Dr. Bryan L. Roth (UNC Chapel Hill)

Eli Lilly Collaborative Drug Discovery Program

National Cancer Institute, NIH, Bethesda, MD

Dr. Michael DeCastro (Department of Chemistry, SUNY – Farmingdale State)

Dr. J. Edgar Anderson (University College – London)

Dr. Raymond Schinazi (Emory University)

Dr. Gregory Cote (USDA)

Dr. Susan Nolan (Seton Hall University)

Dr. Janine Buckner (Seton Hall University)

Dr. Cosimo Antonacci (Seton Hall University)

### **Courses Taught**

#### **Undergraduate**

General Chemistry II (Hunter College/CUNY)

Nursing Chemistry I (Seton Hall University, former two semester course, CHEM 1301)

Organic Chemistry I and II (Pre-professional) CHEM 2321/2322

Organic Chemistry I and II Lab (Pre-professional) (CHEM 2315/2316)

Organic Chemistry I and II (Chemistry Majors) (CHEM 2313/2314)

Cross-Listed Graduate Courses (CHEM 4301, 4303, 4399)

#### **Graduate**

Theoretical Organic Chemistry (CHEM 6301)

Advanced Synthetic Organic Chemistry (CHEM 6303)

Spectroscopy (CHEM 7996)

Carbohydrate Chemistry (CHEM 7399)

Medicinal Chemistry (CHEM 7399)

### **New Courses Developed at Seton Hall**

“Carbohydrate Chemistry”: Special Topics in Organic Chemistry (CHEM 7399)

“NMR Spectroscopy”: Special Topics in Chemistry (CHEM 7996)

“Medicinal Chemistry” Special Topics in Organic Chemistry (CHEM 4399/CHEM 7399)

### **Doctoral Students (Completed)**

Michael DeCastro, 2006 – Currently, Assistant Professor of Chemistry, SUNY/Farmingdale State

Cosimo Antonacci (joint with Dr. Richard Sheardy), 2007 – Currently, Laboratory Manager, Seton Hall University,

Jamie Talisman, 2008 – Currently, Science Writer, City of Hope; CA.

Peter Dobbelaar, 2010 (Merck Scholar), Currently, Term Professor of Chemistry Saint Elizabeth’s College

Edwin Vega, 2011 (joint with Dr. Alexander Fadeev)- Currently, Senior Scientist, Johnson & Johnson

Nada Khan, August 2012, Currently, Term Faculty, Seton Hall University, Department of Chemistry

Vikram Basava, May 2015 – Currently Post-Doctoral Research Associate/Adjunct, City College/CUNY.

Sumiea ElTayeb, May 2017

Emi Hanawa-Romero, May 2017.

### **Doctoral Students (Current)**

Kyle Brogden (*Matriculated*), Anticipated graduation 12/17.

Daniel Goldman (*Matriculated*)

Jeff Raab (shared graduate student with Stephen Kelty)

### **Other Research Students**

Kwaw Win – M.S. student



Gisela Diaz – Visiting Research Fellow (Universidad Nacional de la Plata, Argentina)

Brittany Newby – High School Student (SEED Summer Scholar)

Patience Adaworka – High School Student (ACS Project SEED)

Shobika Sivaram – High School Student (ACS Project SEED)

Foster Williams – High School Student (ACS Project SEED)

Anthony Di Julio – M.S. student

Fadi Khawam – M.S. student

Irene Negrete – M.S. student

Jorge Outeirino-Gonzalez – Visiting Research Fellow (University College – London)

Maria Tamarez – Postdoctoral Research Associate

Joy Barnes Johnson – High School Teacher (Partners in Science)

Dawn DeMayo – High School Teacher (Partners in Science)

Sadia Malik – High School Student (ACS Project SEED)

### **Undergraduates Supervised**

Christine Rapach (M. S. Rutgers)

Christine Mazza (M. S. Rutgers)

Ken Dominguez (Ph.D. University of Hawaii)

Anne Marie Ciancio

Michele Pereira (Thesis – “Europium Complexes of Cyclic Alternan”) (M.S. Columbia Teacher’s College)

Pamela Sullivan (M.S. Northeastern University)

Dauida Brown (M. S. Philadelphia College of Health Sciences)

Valentine Ongeru – medical school

Candace Jones (Freshman project)

Jennifer Bada (Freshman project)

Leigh Pavlovsky (Freshman project)

Megan Meyer (Ph.D. University of Florida)

Yeimy Garcia (M. S. UCLA)

Maureen Hegedorn (Ph.D. University of Pennsylvania)

Melissa Miller (Ph. D. Johns Hopkins University)

Dawn Kennedy (Thesis – Internship at Sanofi-Aventis) High school teacher

William Ott – medical school

Katherine Konchalski (Thesis – “Use of the Povarov Reaction to Produce Tetrahydroquinolines”) – nursing school

Katherine Chang (summer – student at USC) Currently applying graduate programs in neuroscience

Hannah Kaplan (summer – student at Princeton) Patient coordinator, Dana Farber Cancer Institute

Aria Pargangi (summer – student at Carnegie Melon), M.S. Environmental Science, University of Pittsburgh

Shaina Malagad – physician assistant

Alexandra Kolodziejski – Clare Boothe Luce Scholar – (Thesis) – Merck & Co.

Brianna Bicho – Clare Boothe Luce Scholar – (Thesis), currently M.S. in English program

Joshua Salita – current SHU student

Esther Baptiste – applying to medical school

Yesenia Leon – Robert Woods Johnson Medical School program

Vidhi Gandhi – Dental school

Michael Thakore – Current SHU student

Tony Varughese – Current SHU student

Paul Chiurazzi – Current SHU student

Daniel Scelera – Graduated 12/16, seeking employment

Olivia Paulin – Current SHU student

Stephanie Muscat – Current SHU student

**References:**

1. Professor Richard Franck, Post-Doctoral Advisor, Distinguished Professor Emeritus, Department of Chemistry & Biochemistry, Hunter College/CUNY, 695 Park Ave.; New York, NY. 10021. Email: [rfranck@hunter.cuny.edu](mailto:rfranck@hunter.cuny.edu)

2. Dr. Constantine Bitsaktsis, Collaborator, Seton Hall University, Department of Biological Sciences, 400 South Orange Ave.; South Orange, NJ 07079. Email: [Constantine.bitsaktsis@shu.edu](mailto:Constantine.bitsaktsis@shu.edu).

3. Dr. Amber Charlebois, Former WCC Chair and Co-editor, Department of Chemistry & Biochemistry, SUNY Geneseo, NY 14454. Email: [charleboisa@geneseo.edu](mailto:charleboisa@geneseo.edu)

Additional references provided upon request.