

Erin M. Kolonko

515 Loudon Rd, MSC 206
Siena College
Loudonville, NY 12211

Office: (518) 782-6956
ekolonko@siena.edu

Professional Information

APPOINTMENTS

Assistant Professor of Chemistry & Biochemistry , Siena College, Loudonville, NY	2012-present
Visiting Assistant Professor , Franklin & Marshall College, Lancaster, PA	Spring 2012
Visiting Scholar , Franklin & Marshall College, Lancaster, PA	2011-2012
Postdoctoral Fellow, Biomolecular Chemistry, University of WI–Madison, Madison, WI Research Title: “Role of histone chaperones in H3 acetylation by Rtt109”	2008-2010

EDUCATION

Ph.D., Chemistry, University of Wisconsin–Madison, Madison, WI Thesis Title: “The Development of Bioactive, Cell-Permeable Polymers”	2001-2008
B.S. (<i>Cum laude</i>), Chemistry (Honors), Juniata College, Huntingdon, PA	1997-2001

MEMBERSHIP IN SCHOLARLY/PROFESSIONAL ORGANIZATIONS

American Chemical Society, Member	2003 – Present
American Society for Biochemistry and Molecular Biology, Member	2013 – Present
Council on Undergraduate Research	2015 – Present

AWARDS/HONORS/OTHER SPECIAL RECOGNITION

Excellence in Graduate Polymer Science Research Symposium, ACS National Meeting	2007
NIH Chemistry-Biology Interface Training Grant	2002-2005

Teaching and Student Engagement

COURSES TAUGHT

Courses Taught at Siena College:

CHEM 120	General Chemistry II Lecture	1 semester
CHEM 120	General Chemistry II Laboratory	1 semester

CHEM 210	Organic Chemistry I Lecture	4 semesters
CHEM 210	Organic Chemistry I Laboratory <i>Laboratory Coordinator – Fall 2016, Fall 2017</i>	3 semesters
CHEM 220	Organic Chemistry II Lecture	5 semesters
CHEM 220	Organic Chemistry II Laboratory <i>Laboratory Coordinator – Spring 2017</i> <i>Laboratory Coordinator and Prep – Spring 2018</i>	4 semesters
CHEM 316/CHEM 429	Integrated Laboratory I/ Physical Biochemistry Laboratory	2 semesters
CHEM 426	Senior Research	1 semester
CHEM 499/SCDV 499	Independent Study	10 semesters
HNRS 400/410	Honors Thesis	4 semesters

Courses Taught Prior to Siena College

Spring 2012 – Franklin and Marshall College

CHM 112	General Chemistry II Lecture
CHM 112	General Chemistry II Laboratory
CHM 331	Introductory Biochemistry

COURSES AND/OR PROGRAMS DEVELOPED

CHEM 220: Organic Chemistry II Laboratory:

Spring 2017 – Redesigned the majority of the coordinated laboratory curriculum; developed eight new laboratory experiments; prepared all coordinated laboratory materials (lab manual, pre-lab lectures, quizzes, exams, spectroscopy worksheets, paper assignment and guidelines); introduced new safety content along with Ms. Hilary Hofstein in accordance with American Chemical Society guidelines

CHEM 210: Organic Chemistry I Laboratory:

Fall 2016 – Redesigned the entire coordinated laboratory curriculum; developed five new laboratory modules, consisting of eleven weeks of experimentation; prepared all coordinated laboratory materials (lab manual, pre-lab lectures, quizzes, exams, spectroscopy worksheets and tutorials); introduced new safety content along with Ms. Hilary Hofstein in accordance with American Chemical Society guidelines

CHEM 316: Integrated Laboratory I Laboratory (subsequently CHEM 429, co-developed with Dr. Jesse Karr):

Fall 2013 – Redesigned entire course curriculum as a test run for the Physical Biochemistry Laboratory (Fall 2014); developed five new laboratory experiments; devised and implemented six independent multi-week group projects

INSTRUCTIONAL MATERIAL DEVELOPED

CHEM 210 and 220: Organic Chemistry I and II Lecture (Three-four section coordinated course):

Spring 2013 – Pursued the adoption of a new text for all sections Fall 2013 with S. Deyrup, T. Hughes, and L. Tucker

Spring 2013 – Ran an alternate online homework trial for all sections: System was adopted for Fall 2013

Fall 2013-present – Organized and maintained online homework system and gradebook for all sections when teaching CHEM 210 and/or CHEM 220 lecture

CHEM120 Laboratory

Spring 2015 – Revised a kinetics laboratory experiment and handout

PARTICIPATION IN STUDENT ACTIVITIES

2016-present Advisor, Siena College Make-A-Wish Wishmakers on Campus Club
2013-2016 Advisor, Siena College Chapter of the ASBMB Undergraduate Affiliate Network
2013-2014 Co-advisor, Siena College Chemistry and Biochemistry Club

ADVISING

AY '17-'18 – Advised fourteen biochemistry majors
AY '16-'17 – Advised four biochemistry majors
AY '15-'16 – Advised five biochemistry majors
AY '14-'15 – Advised seven biochemistry majors
AY '13-'14 – Advised eleven biochemistry majors

Scholarly Activity and Professional Development

REFERREED PUBLICATIONS AND CONFERENCE PROCEEDINGS

Siena College undergraduate co-author names are underlined.

Publications Since Appointment as Assistant Professor at Siena College

Lutjen, A. B.; Quirk, M.A.; Barbera, A. M.; **Kolonko, E. M.** Synthesis of (*E*)-cinnamyl ester derivatives via a greener Steglich esterification. *Bioorg. Med. Chem.* **2018**,

Publications Prior to Siena College

(Prior to 10/2007, the legal name of E. M. Kolonko was E. E. McElroy.)

Kolonko, E. M.; Albaugh, B. N.; Lindner, S. E.; Chen, Y.; Satyshur, K. A.; Arnold, K. M.; Kaufman, P. D.; Keck, J. L.; Denu, J.M. Catalytic activation of histone acetyltransferase Rtt109 by a histone chaperone. *Proc. Natl. Acad. Sci.* **2010**, *107*, 20275-20280.

Albaugh, B. N.; **Kolonko, E. M.**; Denu, J. M. Kinetic mechanism of the Rtt109–Vps75 histone acetyltransferase–chaperone complex. *Biochemistry* **2010**, *49*, 6375-6385.

Kolonko, E. M.; Pontrello, J. K.; Mangold, S. L.; Kiessling, L. L. General synthetic route to cell-permeable block copolymers via ROMP. *J. Am. Chem. Soc.* **2009**, *131*, 7327-7333.

Kolonko, E. M.; Kiessling, L. L. A polymeric domain that promotes cellular internalization. *J. Am. Chem. Soc.* **2008**, *130*, 5626-5627.

Borrok, M. J.; **Kolonko, E. M.**; Kiessling, L. L. Chemical probes of bacterial signal transduction reveal that repellents stabilize and attractants destabilize the chemoreceptor array. *ACS Chem. Biol.* **2008**, *3*, 101-109.

McElroy, E. E.; Pontrello, J. K.; Kiessling, L. L. "General strategy for the synthesis of biologically active block copolymers." *Polymer Preprints* **2007**, *48*, 219-220.

ORAL AND POSTER PRESENTATIONS

Siena College undergraduate co-author names are underlined; Presenter names are bolded. (Prior to 10/2007, the legal name of E. M. Kolonko was E. E. McElroy.)

Presentations Since Appointment as Assistant Professor at Siena College

National

Poster Presentation. **Lutjen, A. B.**; **Quirk, M. A.**; Barbera, A. M.; Kolonko, E. M. Synthesis of *trans*-Cinnamyl Ester Derivatives via a Greener Steglich Esterification. Presented at the 45th National Organic Symposium, UC-Davis, Davis, CA, June 2017.

Poster Presentation. **Kolonko, E. M.**; Oluwo, O. E.; Fitzpatrick, S. M.; Tabatneck, M. E.; Mansouri, N. Biochemical investigation of the histone methyltransferase PRDM2. Presented at the 250th ACS National Meeting, Boston, MA, August 2015.

Regional/Local

Poster Presentation. **Lutjen, A. B.**; Kolonko, E. M. Antimicrobial Activity of Cinnamic Acid Derivatives: A Multi-Week Synthesis Project for the Organic Chemistry Laboratory. To be presented at the 9th Annual Eastern NY ACS Undergraduate Research Symposium, Siena College, Loudonville, NY, April 2017.

Poster Presentation. **Oluwo, O. E.**; Fitzpatrick, S. M.; **Tabatneck, M. E.**; Kolonko, E. M. Biochemical and kinetic investigation of the histone methyltransferase PRDM2. Presented at the 7th Annual Eastern NY ACS Undergraduate Research Symposium, Siena College, Loudonville, NY, April 2015.

Poster Presentation. **Mansouri, N.**; **Oluwo, O. E.**; Kolonko, E. M. Biochemical and kinetic investigation of the histone methyltransferase PRDM2. Presented at the 6th Annual Eastern NY ACS Undergraduate Research Symposium, Siena College, Loudonville, NY, April 2014.

Poster Presentation. **Mansouri, N.**; **Oluwo, O. E.**; Kolonko, E. M. Kinetic Investigation of the Histone Methyltransferase PRDM2. Presented at the Upstate NY Undergraduate Research Conference, St. Lawrence University, Canton, NY, September 21, 2013.

Internal

Poster Presentation. **Banach, A. M.**; **Rasmussen, L. J.**; Kolonko, E. M. Biochemical investigation of the histone lysine methyltransferase PRDM2. Presented at the 6th Annual Summer Research Symposium, Siena College, Loudonville, NY, September 2017.

Poster Presentation. **Lutjen, A. B.**; **Quirk, M. A.**; Barbera, A. M.; Kolonko, E. M. Synthesis of *trans*-Cinnamyl Ester Derivatives via a Greener Steglich Esterification. Presented at the 6th Annual Summer Research Symposium, Siena College, Loudonville, NY, September 2017.

Poster Presentation. **Van Vorst, J. T.**; Kolonko, E. M. Optimization of a MALDI-based assay for histone methyltransferase kinetics. Presented at the 5th Annual Summer Research Symposium, Siena College, Loudonville, NY, September 2016.

Poster Presentation. **Oluwo, O. E.**; Fitzpatrick, S. M.; **Tabatneck, M. E.**; Kolonko, E. M. Structural and kinetic investigation of the histone methyltransferase PRDM2. Presented at the Siena College 2015 Celebration of Academic Excellence, Siena College, Loudonville, NY, April 2015.

Poster Presentation. **Fitzpatrick, S. M.**; Kolonko, E. M. A thermodynamic analysis of the histone methyltransferase PRDM2. Presented at the Siena College 2015 Celebration of Academic Excellence, Siena College, Loudonville, NY, April 2015.

Oral Presentation. **Oluwo, O. E.**; Kolonko, E. M. Kinetic Investigation of the Histone Methyltransferase PRDM2. Presented at the 3rd Annual Summer Research Symposium, Siena College, Loudonville, NY, September 2014.

Poster Presentation. **Mansouri, N.**; **Oluwo, O. E.**; Kolonko, E. M. Kinetic Investigation of the Histone Methyltransferase PRDM2. Presented at the Siena College 2014 Celebration of Academic Excellence, Siena College, Loudonville, NY, May 2014.

Poster Presentation. **Esposito, M. R.**; Kolonko, E. M. Peroxynitrite effects on enzymatic activity of yeast alcohol dehydrogenase. Presented at the Siena College 2014 Celebration of Academic Excellence, Siena College, Loudonville, NY, May 2014.

Poster Presentation. **Mansouri, N.**; **Oluwo, O. E.**; Kolonko, E. M. Kinetic Investigation of the Histone Methyltransferase PRDM2. Presented at the 2nd Annual Summer Research Symposium, Siena College, Loudonville, NY, September 2013.

Presentations Prior to Siena College

(Prior to 10/2007, the legal name of E. M. Kolonko was E. E. McElroy.)

Invited Oral Presentation. **McElroy, E. E.**; Pontrello, J. K.; Kiessling, L. L. General strategy for the synthesis of biologically active block copolymers, 233rd ACS National Meeting, Division of Polymer Chemistry #185, Chicago, IL, March 2007.

Poster Presentation. **McElroy, E. E.**; Borrok, M. J.; Kiessling, L. L. Mechanistic analysis of negative chemotaxis via multivalent arrays, 228th ACS National Meeting, Division of Biological Chemistry #209, Philadelphia, PA, August 2004.

STUDENTS MENTORED

Research Students	Major (Graduation Year)	Date
Dakota Wilkinson	Biochemistry B.S. ('20)	Summer 2018
Lucian Williams	Biochemistry B.S. ('20)	Summer 2018
Luke Rasmussen	Biology B.S. ('19)	Spring 2017, Summer 2017, AY '17-18
Amanda Banach	Biochemistry B.S. ('20)	Spring 2017, Summer 2017, AY '17-18, Summer 2017
Katherine Lipinski	Biology B.A. ('18)	Spring 2017, AY '17-18
Erik Reidel	Biology B.A. ('18)	AY '16-'17
Andrew Lutjen	Chemistry ('18)	Summer 2016, AY '16-'17, Summer 2017, AY '17-18
Kathryn Burke	Biology B.A. ('18)	Spring 2016, AY '16-'17, AY '17-18
Jacob Van Vorst	Biochemistry ('18)	Spring 2016, Summer 2016, AY '16-'17, AY '17-18
Courtney Scharbach	Biology ('17)	Spring 2016, AY '16-17
Sarah Wunderlich	Biology ('17)	Spring 2016, AY '16-17
Renita Alexander	Biology B.A. ('16)	Spring 2016
Mary Tabatneck	Biology B.A. ('16)	AY '14-'15, '15-'16 (Honors Thesis)
Nek Asghar	Biochemistry ('16)	Summer 2014

Matthew Esposito	Biochemistry ('14)	Spring 2014
Sean Fitzpatrick	Biochemistry ('15)	Fall 2013, AY '14-'15
Omowunmi Oluwo	Biology ('15)	AY '13-'14, '14-'15 (Honors Thesis) Summer 2013, 2014
Joshua Kranick	Chemistry ('13)	Spring 2013
Nadia Mansouri	Biochemistry ('14)	AY '12-'13, '13-'14; Summer 2013

GRANTS

Funded

7. 2018 Siena Summer Scholars
 Title: *Investigation of the Biochemical Structure of a Histone Methyltransferase*
 P.I.: Erin M. Kolonko
 Funding amount: \$6,880
 Active time period: Summer 2018
6. 2017 Siena Summer Scholars
 Title: *Investigation of Histone Methyltransferase Activity with a MALDI Mass Spectrometry-based Assay*
 P.I.: Erin M. Kolonko
 Funding amount: \$6,880
 Active time period: Summer 2017
5. 2016 Siena Summer Scholars
 Title: *Biochemical Investigation of the Histone Methyltransferase PRDM2*
 P.I.: Erin M. Kolonko
 Funding amount: \$6,880
 Active time period: Summer 2016
4. 2014 Siena Summer Scholars
 Title: *Biochemical Investigation of the Histone Methyltransferase PRDM2*
 P.I.: Erin M. Kolonko
 Funding amount: \$6,040
 Active time period: Summer 2014
3. 2014 Siena COTFD Pedagogy Grant
 Title: *Curriculum Development for the new Physical Biochemistry Laboratory Course (CHEM429)*
 P.I.: Erin M. Kolonko and Jesse Karr
 Funding amount: \$2,490
 Active time period: Summer 2014
2. 2013 Siena Summer Scholars
 Title: *Biochemical Investigation of the Histone Methyltransferase PRDM2*
 P.I.: Erin M. Kolonko
 Funding amount: \$6,040
 Active time period: Summer 2013
1. American Heart Association Postdoctoral Research Award
 Title: *Role of histone chaperones in H3 acetylation by Rtt109*
 P.I.: Erin M. Kolonko (Sponser: John M. Denu)
 Funding amount: \$86,972
 Active time period: 01/09 – 06/10

Not Funded

5. 2017 National Organic Symposium Travel Grant
For faculty at a PUI to cover registration and part of travel to the 2017 NOS at the University of California, Davis
Funding amount: \$ 600
4. 2014 NSF-IUSE
Title: *Siena First Year Research Fellows*
P.I.: Lucas J. Tucker
Co-P.I.: Erin M. Kolonko, Larry R. Medsker, Jodi L. O'Donnell
Funding requested: \$ 151,798
Reviews: Good (2), Fair (2)
3. 2014 Research Corporation for Scientific Advancement SI-CCSA
Title: *Biochemical and Kinetic Investigation of the Histone Lysine Methyltransferase PRDM2*
P.I.: Erin M. Kolonko
Funding requested: \$ 40,000
Reviews: Outstanding (1), Excellent (2), Very Good (1)
2. 2013 Research Corporation for Scientific Advancement SI-CCSA
Title: *Characterization of the kinetic and chemical mechanisms of the histone methyltransferase PRDM2*
P.I.: Erin M. Kolonko
Funding requested: \$ 35,000
Reviews: Excellent (2), Good (1)
1. 2016 NMR Major Research Instrumentation
Title: *Acquisition of a New 400 MHz NMR console and Cryocooled Probe for Undergraduate Research and Instruction at Siena College*
P.I.: Thomas Hughes
Co-P.I.: Stephen Deyrup, Erin Kolonko, Kristopher Kolonko, Lucas Tucker
Funding requested: \$ 423,350
Reviews: Very Good (2), Very Good/Good (1, multiple rating), Good (1)

PROFESSIONAL DEVELOPMENT

January 2018	School of Science Inclusion Workshop (Siena College)
August 2016	Spendiff Institute: Creating Inclusive Spaces (Siena College)
July 2014	Council on Undergraduate Research Institute: Proposal Writing Institute

Service

DEPARTMENTAL

2018	Organic Lab Manager/Instructor Search Committee
2016-2018	Organic Laboratory I and II Course Coordinator
2014-present	Freshman Research Fellows Selection Committee
2013	Initiated the Siena College Chapter of the ASBMB Undergraduate Affiliate Network
2013-2015	Presidential Scholars Coordinator with Enrollment Management
2012-2013	Co-coordinator of departmental seminars

SCHOOL OF SCIENCE

- 2016 Nursing Faculty Search Committee (invited)
- 2016 Biology Faculty Search Committee, 2 positions (invited)
- 2016 Nursing Faculty Search Committee (invited)
- 2013 Involved in the acquisition of SAIInT Center instruments; spearheaded investigation and selection of the FPLC, nanoDSC, nanoITC, CONFOCHECK system (protein IR), DSC, and TGA

COLLEGE

- 2018-2019 Honors Thesis Committee Member for Kimberly Vish (Biochemistry, '19)
- 2016-2017 Honors Thesis Committee Member for Courtney Scharbach (Biology, '17)
- 2016-2019 College Planning and Finance Committee, School of Science representative (elected)
- 2014-present Institutional Biosafety Committee (appointed)
- 2014-2017 Committee on Teaching and Faculty Development, At-large representative (elected)
- 2012-present Hosted numerous visiting students in lecture during recruitment activities

PROFESSIONAL

- 2016-2017 Committee member, 2018 Organic Chemistry ACS Exam Committee
- 2015 Reviewer, 1 manuscript for publication in *J. Chem. Ed.*
- 2013 Reviewer, 1 manuscript for publication in *Chem. Educ.*
- 2012 Reviewer, 1 manuscript for publication in *ACS Chem. Biol.*
- 2011 Reviewer, 2 manuscripts for publication in *J. Am. Chem. Soc.*