

OLIVIA M. CHESNIAK, PHD

EDUCATION

Doctor of Philosophy, Chemistry **2012 - 2019**
Michigan State University, East Lansing, MI

Bachelor of Science, Chemistry **2008 - 2012**
Lewis University, Romeoville, IL

RESEARCH EXPERIENCE

Postdoctoral Scholar **March 2019 - Present**
Searle Center for Advancing Learning and Teaching
Northwestern University, Evanston, IL

- Design, develop, and produce program content for a new massive open online course (MOOC) and in-person learning communities focusing on postdoctoral professional development (The Postdoc Academy) using current pedagogy, Universal Design for Learning, and online learning strategies
- Facilitate virtual focus groups and incorporate the views and experiences of diverse postdoctoral scholars into program content
- Facilitate in-person and virtual workshops, provide logistical management for programming, and contribute to media production. Participate in facilitator training
- Lead program evaluation, data collection, management, and analysis
- Connect with institutional stakeholders and the local and national postdoctoral community to build project partnerships

Graduate Research Assistant **2012 - 2018**
Michigan State University, East Lansing, MI

- Developed synthesis method of carbohydrate-containing silica nanoparticles and characterized these materials via electron microscopy, thermogravimetric analysis, and gas adsorption techniques resulting in several publications and presentations
- Collaborated with the Walton/Chan group in the Chemical Engineering Department at Michigan State University to develop siRNA delivery vehicles in *in vitro* studies
- Mentored and trained undergraduate and new graduate students in the Smith and Walton/Chan research groups on safety, instrument use, and written and oral communication

Undergraduate Researcher
Lewis University, Romeoville, IL

2011 - 2012

- Performed experiments to study catalytic decomposition of hydrogen peroxide in the Luminol blood detection system, resulting in one publication, advised by Dr. Jason J. Keleher
- Mentored and trained new students in the Keleher research group on safety, instrument use, and written and oral communication

INSTRUCTIONAL EXPERIENCE

Graduate Teaching Assistant
Michigan State University, East Lansing, MI

2012 - 2018

- Supervised and instructed up to 24 students working independently in organic chemistry lab for six hours each week
- Prepared and presented pre-lab safety guidelines and experimental background information, as well as 50-minute recitations
- Provided scientific writing and data analysis feedback to students
- Re-designed assignments and assessments and implemented the changes during the Summer 2018 semester as a Mentored Teaching Project.

• Courses Taught:		
Fall 2018	CEM 356	Organic Chemistry II Lab, Chemistry Majors
Summer 2018	CEM 355	Organic Chemistry I Lab, Chemistry Majors
Spring 2018	CEM 355	Organic Chemistry I Lab, Chemistry Majors
Fall 2017	CEM 356	Organic Chemistry II Lab, Chemistry Majors
Spring 2017	CEM 143	Organic Chemistry Survey Course and Lab
Fall 2016	CEM 356	Organic Chemistry II Lab, Chemistry Majors
Spring 2016	CEM 355	Organic Chemistry I Lab, Chemistry Majors
Fall 2015	CEM 356	Organic Chemistry II Lab, Chemistry Majors
Summer 2015	CEM 251	Organic Chemistry I
Spring 2015	CEM 355	Organic Chemistry I Lab, Chemistry Majors
Fall 2014	CEM 255	Organic Chemistry I Lab
Spring 2014	CEM 251	Organic Chemistry I
Fall 2013	CEM 251	Organic Chemistry I
Spring 2013	CEM 255	Organic Chemistry I Lab
Fall 2012	CEM 251	Organic Chemistry I

Certification in College Teaching Institute
Michigan State University, East Lansing, MI

2016 - 2019

- Participated in workshops on active learning methods, assessments, tailoring teaching to diverse student populations, designing teaching as research projects to improve student learning, and planning and presenting short teaching demonstrations toward the completion of the College Teaching Certification
- Designed and implemented a mentored teaching project aimed at enhancing scientific communication and critical thinking skills among organic chemistry laboratory students
- Developed a teaching portfolio to document teaching skills and teaching project outcomes toward the completion of the College Teaching Certification

Local Learning Community Facilitator and Student **2016 - 2017**
Center for Integrated Research Teaching and Learning (CIRTL)

- Participated in two massive open online courses (MOOC) focused on preparing future STEM faculty to teach effectively: *An Introduction to Evidence-Based Undergraduate STEM Teaching* and *Advancing Learning Through Evidence-Based STEM Teaching*
- Prepared and led small group discussions of course material at Michigan State University for the first course in the series
- Used backward design to prepare lesson plans and assessments and designed a teaching as research project to inform teaching methods by assessing student learning

Workshop Design Assistant **2011**
Illinois Math and Science Partnership Program Summer Institute Program
Lewis University, Romeoville, IL

- Developed hands-on educational programs and teaching materials for elementary school teachers to teach pollution-remediation techniques to their students
- Presented and supervised the completion of activities for the Illinois Math and Science Partnership Program Summer Institute Program

VOLUNTEER AND LEADERSHIP EXPERIENCE

Director of Communications **2019 - Present**
Northwestern University Postdoctoral Association (NUPA), Evanston, IL

- Edit monthly newsletter disseminated to over 1,000 postdocs and staff
- Design social media marketing campaigns targeting Northwestern postdocs
- Liaise with institutional administrators to streamline communications and serve the needs of postdocs

Founding Member, Education Research Committee **2019 - Present**
Graduate Career Consortium

- Met monthly with community members to develop a vision for a new committee
- Contribute to monthly webinars for learning and teaching research, assessment, and evaluation skills

Co-Founder, ACS Women in Chemistry 2.0

2018 - 2019

Michigan State University, East Lansing, MI

- Initiated collaborations with department alumni, graduate students, and faculty to re-establish a community of graduate students engaged in professional development activities in the Chemistry Department
- Assembled and managed a steering committee of 10 graduate students and 4 faculty and encouraged collaboration in planning professional development workshops, meetings with visiting speakers, peer mentoring, and networking events for graduate students and postdoctoral researchers

Graduate Leadership Fellow

2018 – 2019

Michigan State University, East Lansing, MI

- Engaged stakeholders across the university to develop programs supporting the strategic goals of the Graduate School: empowering students through diverse, inclusive communities
- Collaborated with Dr. Matt Helm, director of Graduate Life & Wellness and Dr. Katy Colbry, Assistant Dean for Graduate Student Services in the College of Engineering to assess and address the needs of female student scientists.
- Participated in leadership training workshops with a cohort of fellows from different disciplines across the university.

STEM Facility Organic Chemistry Laboratory Planning Committee

2018

Michigan State University, East Lansing, MI

- Represented the needs of organic chemistry laboratory students and teaching assistants in meetings with a committee of architects, instructors, and departmental and university administrators as the only Graduate Teaching Assistant on the committee.
- Provided feedback on laboratory designs by considering traffic flow patterns, laboratory needs, and daily operations in instructional organic chemistry laboratory.

The Younger Chemists' Committee

2012 - 2017

Michigan State University, East Lansing, MI

- Participated in outreach activities wherein chemical concepts were demonstrated to local elementary and middle school students
- Led undergraduate students in hands-on, chemistry-focused activities to compete in the Battle of the Chemistry Clubs

RELEVANT SKILLS

Program Development	Program Evaluation
Virtual and In-Person Facilitation	Data Analysis
Curriculum Development	Data Visualization
Online Learning	Research
Assessment	Experimental Design
Evidence-Based Teaching Strategies	SPSS
Mentorship	Adobe Suite
Scientific Communication	WordPress, CSS, HTML
Proposal Preparation	Microsoft Office Suite
Learning Management Systems	Google Apps

PUBLICATIONS

1. Chesniak, O.M.; Drane, D.; Young, C.; Campa, III, H.; Green, N.; Greenler, R.; Maher, J.; McGee, R.; Nunez, A.; Goldberg, B.B.; Hokanson, S.C. "Theory of Change Models Deepen Online Learning Evaluation" *Manuscript in Preparation*.
2. Chesniak, O.M.; Vocelle, D., Walton, S.P.; Chan, C.; Smith, III, M.R. "Exploring the Role of Dextran in the Synthesis and Morphology of Mesoporous Silica Nanoparticles." *Manuscript in Preparation*.
3. Young, C.; Chesniak, O.M.; Drane, D.; Campa, III, H.; Green, N.; Greenler, R.; Maher, J.; McGee, R.; Nunez, A.; Goldberg, B.B.; Hokanson, S.C. "Improving the Design of an Online Course with Virtual Focus Group Feedback." *F1000 Research*. *Accepted with Revisions*. **September 2020**.
4. Vocelle, D.; Chesniak, O. M.; Smith, M. R.; Chan, C.; Walton, S. P. "Kinetic Analysis of the Intracellular Processing of siRNAs by Confocal Microscopy." *Microscopy*. **June 2020**.
5. Vocelle, D.; Chesniak, O. M.; Malefyt, A. P.; Comiskey, G.; Adu-Berchie, K.; Smith, M. R.; Chan, C.; Walton, S. P. "Dextran functionalization enhances nanoparticle-mediated siRNA delivery and silencing." *Technology* **2016**, *04*, 42–54, DOI: 10.1142/S2339547816400100.
6. Soderquist, T. J.; Chesniak, O. M.; Witt, M. R.; Paramo, A.; Keeling, V. A.; Keleher, J. J. "Evaluation of the catalytic decomposition of H₂O₂ through use of organo-metallic complexes--a potential link to the luminol presumptive blood test." *Forensic Sci. Int.* **2012**, *219*, 101–105, DOI: 10.1016/j.forsciint.2011.12.005.

WORKSHOPS AND WEBINARS

1. Chesniak, O.M., Hokanson, S.C. "Maintaining your Resilience While Career Planning." Invited Webinar, *Chicago Women in STEM, STEM Circuits*, Virtual, May 29, 2020.
2. Chesniak, O.M. "Evaluating Throughout Your Program: An Example from The Postdoc Academy." Webinar, *Graduate Career Consortium Graduate Education Research Committee*, Virtual, May 27, 2020.
3. Chesniak, O.M., Campa, III, H., Nunez, A. "Maximizing Career Planning: Developing an Actionable Career Plan." *The Graduate School at Michigan State University*, East Lansing, MI. November 1, 2019.
4. Chesniak, O.M., Young, C. "Navigating Career Transitions: Finding Success as a Postdoc." *Northwestern University*. Chicago, IL. October 16, 2019.
5. Young, C., Chesniak, O.M. "Developing Resilience." *Rush University Career Development Office*, Chicago, IL, October 15, 2019.
6. Chesniak, O.M., Young, C. "Maximizing Career Planning: Developing an Actionable Career Plan." *Northwestern University*, Evanston, IL. October 10, 2019.
7. Chesniak, O.M., Hokanson, S.C. "Developing Work/Life Resilience." *The Graduate School at Michigan State University*, East Lansing, MI, May 10, 2019
8. Young, C., Chesniak, O.M., Hokanson, S.C. "Putting your (Career) Plan into Action!" *Boston University Postdoc Retreat*, Boston, MA. February 2019.

CONFERENCE PRESENTATIONS

1. Chesniak, O.M., Young, C., Campa III, H., Drane, D., Green, N., Greenler, R., Maher, J., McGee, R., Nunez, A., Hokanson, S.C., Goldberg, B. "Integrating Evaluation for Learning Throughout Your Program." *Graduate Career Consortium Annual Conference*. Virtual due to COVID-19, June 2020.
2. Young, C., Chesniak, O.M., Campa III, H., Drane, D., Green, N., Greenler, R., Maher, J., McGee, R., Nunez, A., Hokanson, S.C., Goldberg, B. "Building and Sustaining Resilience during Career Transitions." *National Postdoc Association Annual Meeting*. San Diego, CA, March, 2020. (Delayed due to COVID-19)
3. Chesniak, O.M., Young, C., Campa III, H., Drane, D., Green, N., Greenler, R., Maher, J., McGee, R., Nunez, A., Hokanson, S.C., Goldberg, B. "Integrating Systems Evaluation into Professional Development Program Design." *National Postdoc Association Annual Meeting*. San Diego, CA, March, 2020. (Delayed due to COVID-19)
4. Chesniak, O.M., Young, C., Campa III, H., Drane, D., Green, N., Greenler, R., Maher, J., McGee, R., Nunez, A., Goldberg, B., Hokanson, S.C. "Creating the Postdoc Academy: An Innovative Professional Development Program for Postdocs." *National Postdoc Association Annual Meeting*. San Diego, CA, March, 2020. (Delayed due to COVID-19)
5. Chesniak, O.M., Young, C., Campa III, H., Drane, D., Green, N., Greenler, R., Maher, J., McGee, R., Nunez, A., Hokanson, S.C., Goldberg, B. "Creating the Postdoc Academy: A

- Digital Professional Development Program for Postdocs." *POD Network Annual Conference*. Pittsburgh, PA, November, 2019.
6. Young, C., Chesniak, O.M., Greenler, R., Hokanson, S.C., Goldberg, B. "Building and Evaluating Community: Before, During, and After Online Learning." *POD Network Annual Conference*. Pittsburgh, PA, November, 2019.
 7. Chesniak, O.M.; Hokanson, S.C.; Goldberg, B. "Postdoc Academy: Weaving a Professional Development Community into your Pathway to Success." *Graduate Career Consortium Annual Conference*, New Orleans, LA, June 2019.
 8. Chesniak, O. M. "Scientists Across the Disciplines: Preparing Chemistry Majors for Careers in Academia, Industry, and So Much More." *25th Biennial Conference on Chemical Education*, South Bend, IN, August 2018.
 9. Chesniak, O. M.; Vocelle, D; Chan, C.; Walton, S. P.; Smith, III, M. R. "Modified Stöber method for the synthesis of dextran-SiO₂ glyconanoparticles for siRNA delivery." *American Chemical Society Annual Meeting*, San Fransisco, CA, April 2017.
 10. Chesniak, O. M.; Vocelle, D.; Chan, C.; Walton, S. P; Smith, III, M. R. "Amine Functionalized Dextran-SiO₂ Nanoparticles for siRNA Delivery." *Negishi-Brown Lectures 80th Birthday Symposium*, West Lafayette, IN, July 2015.
 11. Chesniak, O.M. "Electrical Characterization of Bioinspired Nanomaterials for Dye-Sensitized Solar Cells." *Associated Colleges of the Chicago Area Student Symposium*, Elmhurst, IL, April 2012.

AWARDS

POD Network Career Development Grant	2019
College of Natural Science Dissertation Completion Fellowship	2019
Drs. Matthew & Mary Ellen Zabik Natural Science Endowed Scholarship in Chemistry	2019
MSU Graduate Leadership Fellow	2018
MSU Chemistry Department Excellence in Teaching Outstanding Award	2016
Taita Chemical Company & Otto Cheng Endowed Fellowship	2016
Carl H. Brubaker, Jr. Endowed Fellowship in Chemical Sciences	2016
Thomas J. Pinnavaia Endowed Fellowship in Chemical Sciences	2016
MSU Chemistry Department Early Start Graduate Fellowship	2012
Lewis University Department of Chemistry Departmental Achievement Award	2012
Lewis University Distinguished Scholar's Diploma	2012
Lewis University SURE Fellowship	2011
Delta Epsilon Sigma National Honor Society	2010
Girl Scout Gold Award	2009
International Baccalaureate Diploma	2008
Girl Scout Silver Award	2007

PROFESSIONAL AFFILIATIONS

POD Network	2019
Graduate Career Consortium	2019
National Postdoctoral Association	2019
ACS Women in Chemistry at MSU, <i>Co-Founder</i>	2018
Iota Sigma Pi National Honor Society	2018
Graduate Women in Science	2018
American Chemical Society, <i>Division of Chemical Education</i>	2012

GRANT FUNDING

Northwestern University YourLife Wellness Grant	2019
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REFERENCES AVAILABLE UPON REQUEST