Shauna M. Paradine, Ph.D. [she/her|they/them]

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Professional Experience

Assistant Professor, *University of Rochester*, 2018 – present

NIH Postdoctoral Fellow, *Harvard University*, 2015 – 2018
Research Advisor: Prof. Eric N. Jacobsen

NSF Graduate Research Fellow, *University of Illinois at Urbana-Champaign*, 2008 – 2015
Research Advisor: Prof. M. Christina White

DAAD ACS-RISE Scholar, *Universität Mainz, Germany*, 2007
Research Supervisor: Prof. Bernhard Witulski

Visiting Undergraduate Scholar, *Cardiff University, Wales, UK*, 2006
Research Supervisor: Prof. Thomas Wirth

Undergraduate Research Assistant, *Albion College*, 2004 – 2008
Research Advisor: Prof. Andrew N. French

Education

University of Illinois at Urbana-Champaign, Urbana, IL
Ph.D. in Chemistry, 2015

Albion College, Albion, MI
B.A. in Chemistry – Summa cum Laude, with Albion College Honors, 2008

Honors and Awards

2023	Eli Lilly Grantee Award
2023	UR Course Development Fellowship
2023	NIH Maximizing Investigators' Research Award (MIRA)
2022	NSF CAREER Award
2020	Thieme Chemistry Journals Award
2015-2018	Ruth L. Kirschstein NIH Postdoctoral Fellow (NIGMS)
2012-2013	Philanthropic Educational Organization (P.E.O.) Scholar Award
2009-2012	NSF Graduate Research Fellow
2008-2009	Sylvia Stoesser Fellow (UIUC Department of Chemistry)
2008	David L. Randall Award for the Outstanding Senior Chemistry Major (Albion)
2008	The Phi Beta Kappa Society
2007-2008	Marvin F. Grostic Endowed Scholarship in Chemistry (Albion)
2007	DAAD ACS-RISE Scholar
2007	IUPAC Undergraduate International Summer Research ACS Poster Award

2006 USTFCCCA All-Academic, Women's Cross-Country

2006 Mark E. Putnam Memorial Outstanding Sophomore Chemistry Major Award (Albion)

2004 ACS Kalamazoo Section Competitive Chemistry Exam, 2nd Place scholarship winner

Publications

Google Scholar profile PubMed Profile

** denotes that authors contributed equally; underline denotes undergraduate co-authors*

Independent Career:

12. DeCicco, E.M.; Tlapale Lara, N.; **Paradine, S.M.** "Incorporation of Azaheterocycle Functionality in Aerobic, Copper-Catalyzed Alkene Aminooxygenation." *RSC Advances*, **2024**, *14*, 28822-28826. DOI: 10.1039/D4RA06178K
    - Also appearing in: *ChemRxiv* **2024**, DOI: 10.26434/chemrxiv-2024-8ptxs.
11. Monteferrante, O.E.; Houghtling, K.E.; Kropiwnicki, A.R.; **Paradine, S.M.** "Urea Ligand-Promoted Chainwalking Heteroannulation for the Synthesis of 6- and 7-Membered Azaheterocycles." *Chemistry – A European Journal*, **2024**, e202402587. DOI: 10.1002/chem.202402587 ***[cited 1 time]***
    - Also appearing in: *ChemRxiv* **2024**, DOI: 10.26434/chemrxiv-2024-5dz98.
10. Rodina, D.*; Vaith, J.*; **Paradine, S.M.** "Ligand Control of Regioselectivity in Palladium-Catalyzed Heteroannulation Reactions of 1,3-Dienes." *Nature Communications*, **2024**, *15*, 5433. DOI: 10.1038/s41467-024-49803-y
    - Also appearing in: *ChemRxiv* **2023**, DOI: 10.26434/chemrxiv-2023-bztxr
9. Canfield, A.M.; Rodina, D.; **Paradine, S.M.** "Dienes as Versatile Substrates for Transition Metal-Catalyzed Reactions." *Angewandte Chemie, International Edition*, **2024**, *63*, e202401550. DOI: 10.1002/anie.202401550 ***[cited 20 times]***
8. McNichol, C.P.*; DeCicco, E.M.*; Canfield, A.M.; Carstairs, D.; **Paradine, S.M.** "Copper-Catalyzed, Aerobic Aminooxygenation of Cinnamyl *N*-Alkoxy Carbamates via Substrate-Promoted Catalyst Activation." *ACS Catalysis,* **2023**, *13*, 6568-6573. DOI: 10.1021/acscatal.3c01431 **[*cited 11 times*]**
    - Also appearing in: *ChemRxiv* **2023**, DOI: 10.26434/chemrxiv-2023-2shgz
7. Houghtling, K.E.; Canfield, A.M.; **Paradine, S.M.** "Convergent synthesis of dihydrobenzofurans via urea ligand-enabled heteroannulation of *o*-bromophenols with 1,3-dienes." *Organic Letters,* **2022**, *24*, 5787-5790. DOI: 10.1021/acs.orglett.2c02301 **[*cited 6 times*]**
6. Vaith, J.; Rodina, D.; Spaulding, G.C.; **Paradine, S.M.** "Pd-Catalyzed Heteroannulation Using *N*-Arylureas as a Sterically-Undemanding Ligand Platform." *Journal of the American Chemical Society*, **2022**, *144*, 6667-6673. DOI: 10.1021/jacs.2c01019 **[*cited 15 times*]**
    - Among top 20 "Most Read Articles" in *JACS* for April and May 2022

Mentored Work:

5. **Paradine, S.M.***; Ronchi, E.*; Jacobsen, E.N. "Enantioselective, multicomponent synthesis of homoallylic amines enabled by hydrogen bonding and dispersive interactions." *Journal of the American Chemical Society*, **2021**, *143*, 7272-7278. **[*cited 25 times*]**
    - Also appearing in: *ChemRxiv* **2021**, DOI: 10.26434/chemrxiv.14333459

4. **Paradine, S.M.***; Griffin, J.R.*; Zhao, J.; Petronico, A.L.; Miller, S.; White, M.C. "A Manganese Catalyst for Highly Reactive yet Selective Intramolecular C(sp^3)–H Amination." *Nature Chemistry*, **2015**, *7*, 987-994. **[*cited 302 times*]**
    - News of the Week, *Chemical & Engineering News*, 12 October 2015
    - Editors' Choice, *Science*, 30 October 2015 (*350*, pp. 525)
    - "White-Paradine Catalyst" available from Sigma-Aldrich: Product #799688
3. **Paradine, S.M.**; White, M.C. "Iron-Catalyzed Intramolecular Allylic C–H Amination." *Journal of the American Chemical Society,* **2012**, *134*, 2036-2039. **[*cited 404 times*]**
2. Altermann, S.M.; Richardson, R.D.; Page, T.K.; Schmidt, R.K.; Holland, E.; Mohammed, U.; **Paradine, S.M.**; French, A.N.; Richter, C.; Bahar, A.M.; Witulski, B.; Wirth, T. "Catalytic Enantioselective α-Oxysulfonylation of Ketones Mediated by Iodoarenes." *European Journal of Organic Chemistry,* **2008**, 5315-5328. **[*cited 95 times*]**
1. Richardson, R.D.; Page, T.K.; Altermann, S.; **Paradine, S.M.**; French, A.N.; Wirth, T. "Enantioselective α-Oxytosylation of Ketones Catalysed by Iodoarenes." *Synlett,* **2007**, 538-542. **[*cited 118 times*]**

Patents

1. White, M.C.; **Paradine, S.M.**; Griffin, J.R.; Zhao, J.; Petronico, A.L. "General Catalyst for C–H Functionalization." U.S. Patent 9,770,711, **2017**.

Invited Lectures

2025: February: City College of New York, *New York City, NY;* New York University, *New York City, NY;* University of Illinois Urbana-Champaign, *Urbana, IL*; University of California-Irvine, *Irvine, CA*. **March:** University of Michigan, *Ann Arbor, MI;* Michigan State University, *Lansing, MI*. **April:** Princeton University, *Princeton, NJ;* **May:** University of Chicago, *Chicago, IL;* University of California Los Angeles, *Los Angeles, CA*; Scripps Research Institute, *La Jolla, CA*. **July:** Telluride Workshop, "Accelerating Reaction Discovery," *Telluride, CO*. **August:** Bristol Myers-Squibb, *New Brunswick, NJ*.

2024: February: Dartmouth College, *Dartmouth, NH*. **May:** AbbVie, *Chicago, IL* [virtual seminar]. **July:** Organic Reactions and Processes GRC [selected poster talk], *Smithfield, RI*. **September:** Virginia Tech University, *Blacksburg, VA*. **October:** University of Wisconsin-Madison, *Madison, WI*. **November:** Ohio State University, *Columbus, OH*. **December:** Johnson & Johnson, *La Jolla, CA* [virtual seminar].

2023: February: Rochester Institute of Technology, *Rochester, NY*. **March:** University of Buffalo, *Buffalo, NY*. **May:** Cornell University, *Ithaca, NY*. **June:** ACS Northeast Regional Meeting, *Boston, MA,* Symposium: "Enablement of Novel and Sustainable Cross-Coupling Methodologies for Increasing Saturation." **August:** ACS National Meeting, *San Francisco, CA,* Symposium: Division of Organic Chemistry Academic Young Investigator Award Symposium. **October:** Colgate University, *Hamilton, NY;* Eli Lilly, *Indianapolis, IN*. **November:** Albion College, *Albion, MI*.

2022: March: Florida Heterocyclic and Synthetic Chemistry Conference, *Gainesville, FL*. **July:** Stereochemistry GRC [selected poster talk], *Newport, RI*. **October:** Syracuse University, *Syracuse, NY;* Iowa State University, *Ames, IA*.

2020: February: Eric Jacobsen 60th Birthday Symposium, *Cambridge, MA*.

2019: September: SUNY-Brockport, *Brockport, NY*. **November:** SUNY-Fredonia, *Fredonia, NY*.

Pre-2018: Alma College, *Alma, MI, October 2012*; Albion College (Seemon Pines Award Lecture), *Albion, MI, October 2012*; Albion College, *Albion, MI, October 2017.*

Teaching Experience

University of Rochester

Organic Chemistry II [CHEM 204]
Spring 2026
Elements of Communication [CHEM 472]
Spring 2024, Fall 2025
First-Year Organic Chemistry [CHEM 171]
Fall 2022, Fall 2023, Fall 2024
First-Year Organic Chemistry Laboratory [CHEM 173]
Fall 2021
Organotransition Metal Catalysis in Organic Synthesis I/II [CHEM 436/438]
Spring 2020, Spring 2021, Spring 2022, Spring 2023, Spring 2024
Organic Reactions [CHEM 435]
Fall 2018, Fall 2019

University of Illinois at Urbana-Champaign

Organotransition Metal Chemistry [CHEM 538]
Spring 2014 (Head TA)
Organic Chemistry for Majors Laboratory [CHEM 237]
Fall 2008 (TA), Spring 2009 (Head TA)

Albion College

Introductory Organic Chemistry Laboratory [CHEM 211, CHEM 212]
Fall 2006, Fall 2007, Spring 2008 (TA)
General Chemistry Laboratory [CHEM 121]
Spring 2007 (TA)

Service

Department/University Service

April 2024	Instructor Spotlight: Teaching with Images – workshop lead
2023-present	UR Beckman Scholars Program – co-PI
2023-present	Preceptor, NIH T32 Medical Scientist Training Program
2022-present	Chemistry Dept. Faculty Recruiting Committee – Member
2021-present	Chemistry Dept. Graduate Studies Committee – Member
2021-present	Chemistry Dept. Seminar Committee – Member
2020-present	Chemistry Dept. Diversity, Equity, and Inclusion Committee – Member
Fall 2019	CAS 207 Instructor – STEM outreach-based course
2019-present	Reviewer: University Research Award, Provost Fellowship, Schwartz Discover Grant, Hooker Fellowship
2019-present	Preceptor, NIH T32 Chemical-Biology Interface Training Program
2018-2021	Chemistry Dept. Graduate Recruiting Committee – Member

Professional Service

June 2025	National Organic Symposium – local organizer
May 2025	NSF Early Career Investigator Workshop – mentor
Jul 2024	Organic Reactions & Processes GRC – discussion leader
2024-present	*Tetrahedron/Tetrahedron Letters* Early Career Editorial Advisory Board – member
Oct 2022	ACS Northeast Regional Meeting – symposium co-chair
Jul 2022	Stereochemistry GRC – discussion leader
2020-present	Chemistry Women Mentorship Network (Chem WMN) – Mentor
2020-present	ACS Petroleum Research Fund – Reviewer
2020-present	NSF Review Panelist: NSF-GRFP, NSF-ASCEND, NSF Division of Chemistry
2018-present	Reviewer: *J. Am. Chem. Soc., ACS Cat., Org. Lett., J. Org. Chem., Synlett, Angew. Chem. Int. Ed., J. Nat. Prod., Helv. Chim. Act., Nat. Commun.*

Outreach and Other Service

Nov 2024	National Chemistry Week school outreach event – volunteer
Jul 2023	Rochester Central Library "World at Work" STEAMM event
Feb 2020	North Shore CC – STEM Club featured speaker
Feb 2020	Rochester Community Girl Scout Troop – Women in STEM visit

Mentoring/Advising

Current research group

Graduate Students: Caitlyn McNichol (2020), Owen Monteferrante (2021), Shannon O'Neil (2021), Roberto Leon Baxin (2023), Livan Borrego (2024), Neively Tlapale Lara (2024), Arundhuti Chakraborty (2024)

Undergraduate Students: Priscilla Peters ('25), Brooke Stanley ('26), Erhan Ertekin ('26), Risa Kunitake ('27)

Group alumni

Postdoctoral Scholars: Dr. Patrick Harrington (2019-2021, current: medicinal chemistry, Curia)

Graduate Students: Emily Lasher (MS 2020, current: clinical research associate, IQVIA), Dr. Kaitlyn Houghtling (PhD 2023, current: scientist, Alsym Energy), Dr. Jakub Vaith (PhD 2023, current: scientist, Hexagon Bio), Dr. Dasha Rodina (PhD 2024, current: senior scientist, Pfizer), Dr. Amanda Canfield (PhD 2024, current: chemistry technology specialist, Hodgson Russ), Lauren Morano (MS 2024, current: TBD), Dr. Ethan DeCicco (PhD 2024, current: patent agent, Cooley Law)

Undergraduate Students: Jisoo Woo (2018-2020, BS Chemistry 2020, current: PhD student, U Chicago), Brina Patel (2018, BS ChemE 2020, current: Automation Validation Engineer, Panacea Technologies), Yeonseong (Catherine) Seo (2019-2021, BA Chemistry + BS Molecular Genetics 2021, current: PhD student, UC-Irvine), Daniel Carstairs (2020-2022, BS Chemistry 2022, current: chemist II, Planet Pharma), Jacob Ritterman (2021, BS Chemistry 2023), Kathryn Hardin (2021, BS Anthropology 2023), Aidan Kropiwnicki (2021-2023, BS Chemistry + BA Environmental Sciences 2023, current: PhD student, Brown University), Joseph DeRosa (2022-2023, current: student, University of Rochester)

Visiting Scholars: Gregory Spaulding (UR postbac 2019-2021, current: MD student, SUNY-Downstate), Nicholas Kaltenhauser (REU 2023, current: PhD student, University of Rochester), Neively Tlapale Lara (iScholar 2023, current: PhD student, University of Rochester), Wesley Gibson (REU 2024, current: undergraduate, Tennessee Tech)

Prior to Rochester

Harvard University: Dr. Elisabetta Ronchi (Graduate, current: senior advisor, Eli Lilly)

University of Illinois at Urbana-Champaign: Dr. Shannon Miller (Undergraduate, current: PI/fellow, Scripps Research Institute), Dr. Jennifer Griffin (Graduate, current: senior scientist, Neomorph), Dr. Jinpeng Zhao (Graduate, current: research investigator, Corteva), Dr. Aaron Petronico (Graduate, current: battery safety engineer, HP)

Albion College: Dr. Stacy Capehart (Undergraduate, current: director, Mosaic Biosciences), Dr. Matthew Logan (Undergraduate, current: principal scientist, Vividion Biosciences)

Current & Recently Completed Funding

Eli Lilly, *ACC Lilly Grantee Award*
Amount: $100,000 *Grant Period:* 01/12/2024 – 01/11/2026 *Role:* PI

National Institutes of Health (NIGMS), *Maximizing Investigators' Research Award (MIRA)*
Grant: 1 R35GM150584
Title: Discovering catalytic strategies for transition metal-catalyzed reactions to construct topologically complex organic scaffolds
Amount: $1,694,000
Grant Period: 08/01/2023 – 07/31/2028
Role: PI

University of Rochester, *University Research Award (URA)*
Title: Aerobic, radical functionalization reactions via ligand-enabled copper catalysis
Amount: $74,000
Grant Period: 07/01/2023 – 06/30/2025
Role: PI

National Science Foundation, *Faculty Career Development Program (CAREER)*
Grant: 22-38081
Title: CAREER: Establishing ligand platforms to enable selective, catalytic olefin difunctionalization reactions for preparation of diverse heterocyclic scaffolds
Amount: $770,000
Grant Period: 07/01/2023 – 06/30/2028
Role: PI

Arnold and Mabel Beckman Foundation, *Beckman Scholars Program*
Title: University of Rochester Beckman Scholars Program
Amount: $156,000
Grant Period: 05/01/2023 – 08/31/2026
Role: co-PI

National Science Foundation, *Major Research Instrumentation Program (MRI)*
Grant: 22-15973
Title: MRI: Acquisition of a CryoProbe 500 MHz Nuclear Magnetic Resonance (NMR) Spectrometer
Amount: $605,314

Grant Period: 08/01/2022 – 07/31/2024
Role: co-PI

American Chemical Society Petroleum Research Fund, *Doctoral New Investigator*
Grant: 62449-DNI
Title: Chiral manganese carboxylate complexes for catalytic, enantioselective oxidative radical olefin addition reactions
Amount: $110,000
Grant Period: 09/01/2021 – 08/31/2023
Role: PI

Professional Affiliations

American Chemical Society
Phi Beta Kappa