Jeffrey M. Lipshultz, Ph.D.

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Professional Experience

Stony Brook University, Department of Chemistry
Assistant Professor — 2022-present
Member, Institute of Chemical Biology & Drug Discovery — 2023-present

Massachusetts Institute of Technology, Department of Chemistry
Postdoctoral Associate — 2020-2022
Camille and Henry Dreyfus Environmental Chemistry Fellow — 2018-2020
▸ *Advisor*: Professor Alexander T. Radosevich

Education

Princeton University, Department of Chemistry
Ph.D. and M.A. (2015), Chemistry — 2018
▸ *Advisor*: Professor David W. C. MacMillan
▸ *Thesis*: Application of Novel Catalytic Platforms to C-C Bond Forming Reactions in Methodology Development and Natural Product Total Synthesis

Harvard University, Department of Chemistry and Chemical Biology
A.B., *Cum Laude*, Chemistry, with High Honors — 2013
▸ *Advisor*: Professor Andrew G. Myers

Awards and Honors

Maximizing Investigators' Research Award, NIH, National Institute of General Medical Sciences — 2025
Individual Development Award, SUNY — 2024, 2025
Doctoral New Investigator Award, ACS Petroleum Research Fund — 2023
Mentorship Spotlight Award, MIT Department of Chemistry — 2021
Postdoctoral Fellowship in Environmental Chemistry, Camille & Henry Dreyfus Foundation — 2018-2020
Hugh Stott Taylor Prize, Princeton University — 2013-2015
Stanley A. Lefkowitz *70 Fellowship, Princeton University — 2014
Graduate Research Fellowship Program Honorable Mention, National Science Foundation — 2014
Herchel Smith Summer Undergraduate Research Fellowship, Harvard University — 2011

Peer Reviewed Publications

4. Leveraging Divergent LMCT Excited State Pathways for Catalyst Control over Alkoxyl Radical Reactivity. Z. Tang, [‡] Y. Lin, [‡] A. E. Lojko, J. A. Shah, N. J. Schwartzapfel,[#] **J. M. Lipshultz**. Preprint posted on *Chemrxiv*, DOI: 10.26434/chemrxiv-2025-b2p6p. [‡]Equal contribution. [#]Undergraduate researcher.

3. 3-Hydroxy-4-pyridinecarboxaldehyde. T. D. Schoch, **J. M. Lipshultz**. *Encyclopedia of Reagents in Organic Synthesis.* **2025**, accepted.

2. Degradative Alcohol Functionalization by Titanocene Photocatalysis. J. A. Shah, A. E. Lojko, Z. Tang, Y. Lin, E. H. Scher,[#] C. A. Barefoot,[#] **J. M. Lipshultz**. *ACS Catal.* **2025**, *15*, 15315–15323. Preprint posted on *Chemrxiv*, DOI: 10.26434/chemrxiv-2025-vg021. [#]Undergraduate researcher.

1. Pyridoxal-Inspired Photo-Decarboxylase Catalysis: Photochemical Decarboxylation of Unprotected Amino Acids. D.-H. Tan, A. Das, [‡] V. Huang, [‡] T. D. Schoch, A. L. Mohammed, **J. M. Lipshultz**. *Angew. Chem. Int. Ed.* **2025**, e202424843. [‡]Equal contribution.

Mentored Publications

8. Nitrilation of carboxylic acids by P^{III}/P^{V}-catalysis. S. Z. Ali, N. A. Manno, J. Shen, A. Schenker, **J. M. Lipshultz**, N. A. White, and A. T. Radosevich. *Chem. Sci.* **2025**, *16*, 16145–16150.

7. Deoxyfluorination of 1°, 2°, and 3°Alcohols by Nonbasic O–H Activation and Lewis Acid-Catalyzed Fluoride Shuttling. H. W. Moon, M. N. Lavagnino, S. Lim, M. D. Palkowitz, M. D. Mandler, G. L. Beutner, M. J. Drance, **J. M. Lipshultz**, P. M. Scola, and A. T. Radosevich. *J. Am. Chem. Soc.* **2023**, *145*, 22735–22744.

6. Uniting Amide Synthesis and Activation by P^{III}/P^{V}-Catalyzed Serial Condensation: Three-Component Assembly of 2-Amidopyridines. **J. M. Lipshultz**, A. T. Radosevich. *J. Am. Chem. Soc.* **2021**, *143*, 14487–14494.

5. Main Group Redox Catalysis of Organopnictogens: Vertical Periodic Trends and Emerging Opportunities in Group 15. **J. M. Lipshultz**,‡ G. Li,‡ A. T. Radosevich. *J. Am. Chem. Soc.* **2021**, *143*, 1699–1721. ‡Equal contribution.

4. Organophosphorus-Catalyzed Relay Oxidation of H–Bpin: Electrophilic C–H Borylation of Heteroarenes. **J. M. Lipshultz**, Y. Fu, P. Liu, A. T. Radosevich. *Chem. Sci.* **2021**, *12*, 1031–1037.

3. Driving Recursive Dehydration by P^{III}/P^{V} Catalysis: Annulation of Amines and Carboxylic Acids by Sequential C–N and C–C Bond Formation. M. Lecomte,‡ **J. M. Lipshultz**,‡ S.-H. Kim-Lee, G. Li, A. T. Radosevich. *J. Am. Chem. Soc.* **2019**, *141*, 12507–12512. ‡Equal contribution.

2. Catalyst-Controlled Oligomerization for the Collective Synthesis of Polypyrroloindoline Natural Products. C. R. Jamison, J. J. Badillo, **J. M. Lipshultz**, R. J. Comito, D. W. C. MacMillan. *Nat. Chem.* **2017**, *9*, 1165–1169.

1. Merging Photoredox and Nickel Catalysis: The Direct Synthesis of Ketones via the Decarboxylative Arylation of α-Oxo Acids. L. Chu, **J. M. Lipshultz**, D. W. C. MacMillan. *Angew. Chem. Int. Ed.* **2015**, *54*, 7929–7933.

Ongoing Research Support

Complex Amines from Simple Amino Acids via Pyridoxal-Mimicking Radical (Photo)Catalysis
Maximizing Investigators' Research Award (MIRA, R35). NIH, National Institute of General Medical Sciences.
Role: PI. Amount: $1,250,000. January 2025 – December 2029.

MRI: Track 3 Acquisition of Helium Recovery Equipment to Support the NMR Facility for Campuswide Research & Education
Major Research Instrumentation. National Science Foundation, Division of Chemistry
Role: co-PI, with Barney Grubbs (PI), Jeffrey Gustafson, Benjamin Hsiao, Quinton Bruch (co-PIs).
Amount: $280,987. September 2025 – August 2028.

Pyridoxal-Inspired Radical Catalysis
Unfunded collaboration. Merck Sharp & Dohme LLC.
Role: PI. Amount: In-kind contributions. December 2024 – November 2026.

Completed Research Support

***Ansa*-Titanocene Photocatalysis for *O*-Centered Radical-Mediated Upgrading of Light Hydrocarbons**
Doctoral New Investigator Grant. American Chemical Society, Petroleum Research Fund.
Role: PI. Amount: $110,000. September 2023 – August 2025.

Aminomutase-Inspired Green Radical Amination
Ignition Grant. American Chemical Society, Green Chemistry Institute Pharmaceutical Roundtable.
Role: PI. Amount: $40,000. October 2023 – September 2024.

Upgrading of Simple and Macromolecular Alcohols via Catalytic Alkoxyl Radical β-Scission
Seed Grant. Stony Brook University, Office of the Vice President for Research.
Role: PI, with Barney Grubbs (co-PI). Amount: $50,000. April 2023 – July 2024.

Seminars and Lectures

Binghamton University, Binghamton, NY — May 2026
Seton Hall University, South Orange, NJ — April 2026
Smith College, Northampton, MA — March 2026
Florida Heterocycles Conference, Gainesville, FL — March 2026
Temple University, Philadelphia, PA — Jan 2026
ACS Northeast Regional Discussion, Worcester, MA — Nov 2025
Organic Syntheses Workshop, Santa Barbara, CA — Aug 2025
Heterocyclic Compounds Gordon Research Conference (poster), Newport, RI — June 2025
Fordham University, Bronx, NY — Feb 2025
SUNY Brockport, Brockport, NY — Oct 2024
Heterocyclic Compound Gordon Research Conference (preview talk), Newport, RI — June 2024
ACS National Meeting (contributed), New Orleans, LA — March 2024
Queens College, **City University of New York**, Queens, NY — Oct 2023
Institute of Chemical Biology & Drug Discovery, **Stony Brook University**, Stony Brook, NY — Sept 2023
Stereochemistry Gordon Research Conference (poster), Newport RI — July 2022

Teaching: Stony Brook University

Chemistry 348/502, Reaction Mechanisms and Strategies in Organic Chemistry
- 9 undergraduate students, 36 graduate students — Fall 2025
- 9 undergraduate students, 10 graduate students — Spring 2024
- 12 undergraduate students, 11 graduate students — Spring 2023

Chemistry 384, Intermediate Synthetic and Spectroscopic Laboratory Techniques
- 25 undergraduate students — Fall 2024
- 11 undergraduate students — Fall 2023
- 21 undergraduate students — Fall 2022

Chemistry 619/696, Critical Readings of Current Topics in Chemistry/Organic Chemistry Seminar
- 22 graduate students — Fall 2024
- 16 graduate students — Fall 2023

Trainee Advising

Graduate Students: Yetong Lin (2023-); Ashley Lojko (2023-); Vincent Huang (2023-); Agniva Das (2024-); Ayah Fidama (2024-); Zirui Liu (2025-); Kiran Soma (2025-)

Undergraduate Students: Jialin Li (2025-, Biochemistry ‘27); Mahir Hossain (2025-, Chemistry ‘28), Joshua Griffin (2025-, Chemistry ‘29, Simons STEM Scholar)

Postdoctoral Researchers: Timothy Schoch (IRACDA Fellow, 2024-); Ethan Raffman (IRACDA Fellow, 2025-)

Alumni

Graduate Students: Jagrut Shah (Ph.D. 2025, current: Postdoctoral Associate, Cusumano Group, UChicago); Jaclyn Mauro (Ph.D. 2024, current: IRACDA Postdoctoral Fellow, Parker Lab, SBU)

Postdoctoral Researchers: Zilu Tang (2023-2025, current: Postdoctoral Associate, Zuo Group, SIOC); Dong-Hang Tan (2023-2024, current: MSCA Postdoctoral Fellow, Dixon Group, Oxford)

Undergraduate Students: Emma Scher (2022-2025, Chemistry ‘25, current: Graduate student, CUNY Chemistry); Noah Schwartzapfel (2023-2025, Chemistry ‘25, current: Graduate student, Purdue Chemistry); Sayan Shil (2023-2025, Biomedical Engineering ‘25, current: Con-Edison); Maxim Savenkov (2024-2025, Chemistry ‘26); Nasiba Khandaker (2022-2023, BS Chemistry ‘23); Zongle Wei (2022–2023, Chemistry ‘24); Jacob Fox (2022–2023, Chemistry ‘24)

Visitors: Lorena Rivera Perez (University of Puerto Rico, Mayagüez), SUNY SOAR, Summer 2025; Celeste Barefoot (UNC-Wilmington, Chemistry ‘25), SBU Chemistry REU, Summer 2024

Trainee Awards and Recognition

Graduate Students:

▸ Jagrut Shah:	National Organic Symposium Travel Award	2025
	SBU Chemistry Award for Outstanding Doctoral Student	2025
	SBU Chemistry Award for Outstanding Service	2025
	Merck Research Award for Underrepresented Chemists of Color	2024
▸ Kiran Soma:	SBU Chemistry Award for First-Year Teaching Assistant	2025
▸ Jaclyn Mauro:	SBU Chemistry Award for Outstanding Service	2024

Undergraduate Students:

▸ Noah Schwartzapfel:	ACS Division of Organic Chemistry Undergraduate Award	2025
	SBU Chemistry Award for Outstanding Achievement in Chemical Research	2025
	SBU Chemistry Award for Outstanding Academic Achievement	2025
	SBU Chemistry Emerson Award	2025
▸ Emma Scher:	SBU Chemistry Award for Outstanding Academic Achievement	2025
	ACS Division of Organic Chemistry Summer Undergraduate Research Fellowship	2024
▸ Maxim Savenkov:	SBU Chemistry Dr. Kenneth M. Nicholas-URECA Fellowship	2024
▸ Jacob Fox:	SBU Chemistry Dr. Kenneth M. Nicholas-URECA Fellowship	2023

Service Activities: Stony Brook University

Seminar Committee, Dept. of Chemistry, Co-Chairperson 2022-present

- ▸ Engaging Undergraduates in Research Lecture Series 2023-present
- ▸ Merck-SBU Lectures Feb 2023
- ▸ Pfizer-SBU Symposium Sept 2023
- ▸ Symposium on Bioorthogonal Chemistry in Honor of the 2022 Nobel Prize in Chemistry Dec 2022

Graduate Recruitment Committee, Dept. of Chemistry, Member 2022-present

Chemical Biology Training Program, Faculty Mentor 2023-present

SBU-BNL Photochemistry Supergroup, Co-Organizer, with Dr. Matthew Bird (BNL) 2023-present

Graduate Chemical Society, Dept. of Chemistry, Faculty Advisor 2023-present

Chemistry 542: Chemical Biology, Guest Lecturer 2023-present

RCR Workshop for Postdocs, Office of Postdoctoral Affairs, Session Leader (COIs and Collaborations) 2025

NIH R-Award Series, **Awardee Panel**, Office of Proposal Development, Panelist 2025

Chemistry Research Day, Dept. of Chemistry, Poster Judge 2024

ICBDD Symposium, Institute of Chemical Biology and Drug Discovery, Poster Judge 2023, 2024

Open Rank Faculty Search Committee, Dept. of Chemistry, Member, Inclusion Liaison 2023-2024

Junior Faculty Search Committee, Dept. of Chemistry, Member 2022-2023

Merck-SBU Interview Workshop, Organizer May 2023

Dissertation Committees

Chairperson: Ananya Shibana Thennarasu (2022-), Chuying Zou (2023-), Yogesh Kakade (2023-), Anna Muller (2024-), Anza Suneer Rahiyanath (2024-), Liangzhan Li (2025-), Zhao Liu (2025-), Dominick Rendina (2022-2025, Ph.D.)

Third Member: Nicholas Wodzenski (2024-), Nicholas Fraschilla-Brodkin (2025-), Dominic Picca (2025-), Kelly Mackenzie (2025-), Kun Lin Hsieh (2022-2025, Ph.D.), Chuanzhou Zhu (2023, PhD), Xinyuan Gao (2022-2023, MA)

Outside Member: David Cabanero (2024, Ph.D., Columbia, Advisor: Tom Rovis)

Reviewing Activities: External

Journals: ACS Catalysis, ACS Central Science, Angewandte Chemie, Chem, Journal of the American Chemical Society, Nature Catalysis, Nature Communications, Organic Letters, Science Advances, Synlett
Grants and Fellowships: ACS Petroleum Research Fund, National Science Foundation

Workshops, Programs, and Trainings

Excellence in Teaching Program, SBU, Office of the Vice-Provost for Faculty Affairs 2023-2024
Research Mentoring for Faculty, SBU, Office of Professional Development Fall 2023
Conducting Inclusive Hiring Searches, SBU, Office of Diversity, Inclusion & Intercultural Initiatives Dec 2023
Early Career Investigator Workshop, National Science Foundation, Division of Chemistry May 2023
New Faculty Workshop, American Chemical Society Aug 2022

Outreach and Mentorship Activities

Letters to a Pre-Scientist, STEM Professional Pen Pal 2023-present
Princeton GradFUTURES Mentor Program, Alumni Mentor 2023-present
Bergen County Academies Alumni Career Day, Alumni Presenter 2023