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

CAREER Award, National Science Foundation — 2026
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

Publications

‡Equal contribution. #Undergraduate researcher.

4. Leveraging Divergent Ligand-to-Metal Charge-Transfer Excited State Pathways for Catalyst Control over Alkoxyl Radical Reactivity. Z. Tang,‡ Y. Lin,‡ A. Mehmood, A. E. Lojko, J. A. Shah, N. J. Schwartzapfel,# B. G. Levine, **J. M. Lipshultz**. *J. Am. Chem. Soc.* **2026**, *148*, 6665–6673. Preprint posted on *Chemrxiv*, DOI: 10.26434/chemrxiv-2025-b2p6p-v2.

3. 3-Hydroxy-4-pyridinecarboxaldehyde. T. D. Schoch, **J. M. Lipshultz**. *Encyclopedia of Reagents in Organic Synthesis.* **2026**, DOI: 10.1002/9780470842898.rn02664.

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.

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.

Mentored Publications

9. 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, A. T. Radosevich. *Chem. Sci.* **2025**, *16*, 16145–16150.

8. 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, A. T. Radosevich. *J. Am. Chem. Soc.* **2023**, *145*, 22735–22744.

7. 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.

6. 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.

5. 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.

4. 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.

3. One Step Forward: A Novel "Step-Conjugated" Biphosphole. **J. M. Lipshultz**; A. T. Radosevich. *Chem* **2018**, *4*, 2485–2488. Invited *Preview*.

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

CAREER: CAS: Rational Development of Titanium Photocatalysis for the Generation, Utilization, and Control of Heteroatom-Centered Radicals
CAREER Award (Faculty Early Career Development Program). National Science Foundation.
Role: PI. Amount: $519,574 direct ($800,566 total). July 2026 – June 2031.

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 direct ($1,936,578 total). 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, Lectures, and Presentations

Northeastern University, Boston, MA — Dec 2026
Brandeis University, Waltham, MA — Dec 2026
Boston College, Chestnut Hill, MA — Dec 2026
Boston University, Boston, MA — Dec 2026
University of Chicago, Chicago, IL — Dec 2026
University of Wisconsin–Madison, Madison, WI — Dec 2026
University of Maryland, College Park, MD — Nov 2026
Johns Hopkins University, Baltimore, MD — Nov 2026
Columbia University, New York, NY — Nov 2026
New York University, New York, NY — Nov 2026
University of California, Irvine, Irvine, CA — Oct 2026
Vanderbilt University, Nashville, TN — Oct 2026
University of Connecticut, Storrs, CT — Oct 2026
City University of New York, New York, NY — Oct 2026
University of California, Riverside, Riverside, CA — Oct 2026
University of Southern California, Los Angeles, CA — Oct 2026
Indiana University, Bloomington, IN — Sept 2026
Ohio State University, Columbus, OH — Sept 2026
Michigan State University, East Lansing, MI — Sept 2026
University of Rochester, Rochester, NY — Sept 2026
University at Buffalo, Buffalo, NY — Sept 2026
Stereochemistry Gordon Research Conference, Newport, RI — July 2026
Organometallics Gordon Research Conference, Newport, RI — July 2026
Heterocyclic Compounds Gordon Research Conference, Newport, RI — June 2026
ACS Mid-Atlantic Regional Meeting, Hershey, PA — May 2026
Binghamton University, Binghamton, NY — May 2026
Seton Hall University, South Orange, NJ — April 2026
Florida Heterocycles Conference, Gainesville, FL — March 2026
Smith College, Northampton, MA — 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 (poster and 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

Service Activities: Stony Brook Chemistry

Seminar Committee, Co-Chairperson — 2022-present
- ▸ Engaging Undergraduates in Research Lecture Series — 2023-present

Graduate Recruitment Committee, Member — 2022-present
Graduate Chemical Society, Faculty Advisor — 2023-present
Chemistry 504: Physical Organic Chemistry, Guest Lecturer — 2022-present
Chemistry 542: Chemical Biology, Guest Lecturer — 2023-present
EIP Faculty Search Committee, Member, Hiring Success Liaison — 2025-2026
Open Rank Faculty Search Committee, Member, Hiring Success Liaison — 2023-2024
Junior Faculty Search Committee, Member — 2022-2023
Chemistry Research Day, Poster Judge — 2024

Service Activities: Stony Brook University

Long Island Photochemistry Supergroup (LIPCS), Chair, with Dr. Matthew Bird (BNL, Co-Chair) 2023-present
- SBU Research Conference/Workshop Seed Grant 2025

Chemical Biology Training Program, Faculty Mentor 2023-present

ICBDD Symposium, Institute of Chemical Biology and Drug Discovery
- Poster Session Organizer 2026
- Poster Judge 2023, 2024

RCR Workshop for IRACDA fellows, Center for Inclusive Education 2026

RCR Workshop for postdocs, Office of Postdoctoral Affairs 2025

BRIDGES Conference, SBU GradMag, Poster Judge 2026

Merck-SBU Interview Workshop, Organizer 2023

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

Service and Reviewing Activities: External

Symposium Organizer, ACS Mid-Atlantic Regional Meeting, Hershey, PA May 2026
- Topic: Novel Applications of Photocatalysis in Organic Synthesis

Reviewer, **Journals**: ACS Catalysis, ACS Central Science, Angewandte Chemie, Chem, Journal of the American Chemical Society, Nature, Nature Catalysis, Nature Communications, Nature Synthesis, Organic Letters, Science Advances, Synlett

Reviewer, **Grants and Fellowships**: NIH Chemical Synthesis & Biosynthesis (ad hoc, March 2026), ACS Petroleum Research Fund, National Science Foundation

Teaching: Stony Brook University

Chemistry 348/502, Reaction Mechanisms and Strategies in Organic Chemistry
- 9 UG/36 GS (Fall 2025); 9 UG/10 GS (Spring 2024); 12 UG/11 GS (Spring 2023)

Chemistry 328, Synthetic and Spectroscopic Laboratory Techniques
- 36 UG (Spring 2026)

Chemistry 384, Intermediate Synthetic and Spectroscopic Laboratory Techniques
- 25 UG (Fall 2024); 11 UG (Fall 2023); 21 UG (Fall 2022)

Chemistry 619/696, Critical Readings of Current Topics in Chemistry/Organic Chemistry Seminar
- 51 GS (Spring 2026); 22 GS (Fall 2024); 16 GS (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-)

Trainee 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, Biscoe Group, CUNY Chemistry); Noah Schwartzapfel (2023-2025, Chemistry '25, current: Graduate student, Ngai Group, 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:

▸ Yetong Lin:	ACS Division of Organic Chemistry Graduate Research Symposium Speaker	2026
▸ Ashley Lojko:	ACS Division of Organic Chemistry Travel Award	2025
▸ 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:

▸ Jialin Li:	SBU Biology Mitchell Wortzman Undergraduate Research Award	2026
▸ 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 Undergraduate Research Fellowship	2024
▸ Jacob Fox:	SBU Chemistry Dr. Kenneth M. Nicholas Undergraduate Research Fellowship	2023

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

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: Justin Chang (2026, Ph.D., Temple, Advisor: Daniel Kim). David Cabanero (2024, Ph.D., Columbia, Advisor: Tomislav Rovis)

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