

## Jeehiun Katherine Lee - Curriculum Vitae

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### PERSONAL

Birth Date: July 20, 1968 (New York)

### EDUCATION

*National Institutes of Health Postdoctoral Fellow*, Univ. of California, Los Angeles (1995-1997)

*Ph.D., Organic Chemistry*, Harvard University, Cambridge, MA (1995)

*B.A., Chemistry (Summa Cum Laude)*, Cornell University, Ithaca, NY (1990)

### CURRENT POSITIONS

Professor, Department of Chemistry, Rutgers University

Member, Environmental and Occupational Health Sciences Institute (EOHSI)

Member, Molecular Biophysics Graduate Program

Member, Molecular Biosciences Graduate Program

### SCHOLARSHIP

#### Publications since 2007 (as P1)

Lee, J. K. "Gas Phase Models for Biocatalysis," in "Gas Phase Models for Catalysis: Atoms, Molecules, Clusters, and Complexes/Physical Chemistry in Action," Lang, S.; Bernhardt, T.. Eds. Springer, **2021**, *in press*.

Majumdar, C.; McKibbin, P. L.; Krajewski, A. E.; Manlove, A. H.; Lee, J. K.; David, S. S. "Unique Hydrogen Bonding of Adenine with the Oxidatively Damaged Base 8-Oxoguanine Enables Specific Recognition and Repair by DNA Glycosylase MutY," *J. Am. Chem. Soc.*, **2020**, *142*, 20340-20350.

Wang, N.; Lee, J. K. "Gas-Phase and Ionic Liquid Experimental and Computational Studies of Imidazole Acidity and Carbon Dioxide Capture," *J. Org. Chem.*, **2019**, *84*, 14593-14601.

Xu, J.; Krajewski, A. E.; Niu, Y.; Kiruba, G. S. M.; Lee, J. K. "Kinetic Hydricity of Silane Hydrides in the Gas Phase," *Chemical Science*, **2019**, *10*, 8002-8008.

Xu, J.; Mieres-Perez, J.; Sanchez-Garcia, E.; Lee, J.K. "Gas-Phase Deprotonation of Benzhydryl Cations: Carbene Basicity, Multiplicity, and Rearrangements," *J. Org. Chem.*, **2019**, *84*, 7685-7693. *Also highlighted as journal issue cover.*

Wang, N.; Xu, J.; Lee, J. K. "The Importance of *N*-Heterocyclic Carbene Basicity in Organocatalysis," *Org. Biomol. Chem.*, **2018**, *16*, 6852-6866.

Lee, J. K.; Niu, Y. "pK<sub>a</sub> Prediction," in "Applied Theoretical Organic Chemistry," World Scientific, **2018**, 503-518.

Niu, Y.; Wang, N.; Munoz, A.; Xu, J.; Zeng, H.; Rovis, T.; Lee, J. K. "Experimental and Computational Gas Phase Acidities of Conjugate Acids of Triazolylidene Carbenes: Rationalizing Subtle Electronic Effects," *J. Am. Chem. Soc.*, **2017**, *139*, 14917-14930.

Bird, J. G.; Zhang, Y.; Tian, Y.; Greene, L.; Liu, M.; Buckley, B.; Lee, J. K.; Kaplan, C.

D.; Ebright, R. H.; Nickels, B. E. "The Mechanism of RNA 5' Capping with NAD<sup>+</sup>, NADH, and CoA," *Nature*, **2016**, 535, 444-447.

Kiruba, G. S. M.; Xu, J.; Zelikson, V.; Lee, J. K. "Gas Phase Studies of Formamidopyrimidine Glycosylase (Fpg) Substrates," *Chem. Eur. J.*, **2016**, 22, 3881-3890 (special issue "Women in Chemistry": [http://bit.ly/CEJ\\_Women2016](http://bit.ly/CEJ_Women2016)).

Tian, Y.; Lee, J. K. "Gas Phase Studies of N-Heterocyclic Carbene-Catalyzed Condensation Reactions," *J. Org. Chem.* **2015**, 80, 6831-6838. Selected by "Organic Process Research & Development" as a "Highlight from the Literature"

Teator, A. J.; Tian, Y.; Chen, M.; Lee, J. K.; Bielawski, C. W. "An Isolable, Photoswitchable N-Heterocyclic Carbene: On-Demand Reversible Ammonia Activation," *Angew. Chem. Int. Ed.*, **2015**, 54, 11559-11563. Selected by "Advances in Engineering" as a "Featured Article"

Chen, M.; Lee, J. K. "Computational Studies of the Gas-Phase Thermochemical Properties of Modified Nucleobases," *J. Org. Chem.*, **2014**, 79, 11295-11300. Selected by JOC as "Highlighted Article"

Zeng, H.; Wang, K.; Tian, Y.; Niu, Y.; Greene, L.; Hu, Z.; Lee, J. K. "The Benzoin Condensation: Charge Tagging of the Catalyst Allows for Tracking by Mass Spectrometry," *Int. J. Mass. Spectrom.* **2014**, 369, 92-97 (special issue to honor Veronica Bierbaum)

Wang, K.; Chen, M.; Wang, Q.; Shi, X.; Lee, J. K. "1,2,3-Triazoles: Gas Phase Properties," *J. Org. Chem.*, **2013**, 78, 7249-7258.

Chen, M.; Moerdyk, J. P.; Blake, G. A.; Bielawski, C. W.; Lee, J. K. "Assessing the Proton Affinities of N,N'-Diamidocarbenes," *J. Org. Chem.* **2013**, 78, 10452-10458 Selected by JOC as a "Highlighted Article"

Maiti, A.; Michelson, A. Z.; Hwang, B.-J.; Armwood, C. J.; Lu, A.-L.; Lee, J. K.; Drohat, A. C. "Divergent Mechanisms for TDG Excision of 5-Formylcytosine and 5-Carboxylcytosine from DNA," *J. Am. Chem. Soc.*, **2013**, 135 (42), pp 15813-15822.

Michelson, A. Z.; Rozenberg, A.; Tian, Y.; Sun, X.; Davis, J.; Francis, A. W.; O'Shea, V. L.; Halasyam, M.; Manlove, A. H.; David, S. S.; Lee, J. K. "Gas-Phase Studies of Substrates for the DNA Mismatch Repair Enzyme MutY," *J. Am. Chem. Soc.*, **2012**, 134, 19839-19850.

Michelson, A. Z.; Chen, M.; Wang, K.; Lee, J. K. "Gas-Phase Studies of Purine 3-Methyladenine DNA Glycosylase II (AlkA) Substrates," *J. Am. Chem. Soc.*, **2012**, 134, 9622-9633.

Michelson, A. Z.; Petronico, A. "2-Pyridone and Derivatives: Gas Phase Acidity, Proton Affinity, Tautomer Preference and Leaving Group Ability," *J. Org. Chem.*, **2012**, 77, 1623-1631.

Liu, M.; Chen, M.; Zhang, S.; Yang, I.; Buckley, B.; Lee, J. K. "Reactivity of Carbene•Phosphine Dimers: Proton Affinity Revisited," *J. Phys. Org. Chem.* **2011**, 24, 929-936.

Tantillo, D. J.; Lee, J. K. "Reaction Mechanisms: Pericyclic Reactions," *Annu. Rep.*

*Prog. Chem., Sect. B* **2011**, *107*, 266-286.

Liu, M.; Tran, N. T.; Franz, A. K.; Lee, J. K. "Gas-Phase Acidity Studies of Dual Hydrogen-Bonding Organic Silanols and Organocatalysts," *J. Org. Chem.* **2011**, *76*, 7186-7194.

Liu, M.; Yang, I.; Buckley, B.; Lee, J. K. "Proton Affinities of Phosphines versus N-Heterocyclic Carbenes," *Org. Lett.* **2010**, *21*, pp 4764-4767

Tantillo, D. J.; Lee, J. K. "Reaction Mechanisms: Pericyclic Reactions," *Annu. Rep. Prog. Chem., Sect. B*, **2010**, *106*, 283-303.

Sun, X.; Lee, J. K. "The Stability of DNA Duplexes Containing Hypoxanthine (Inosine): Gas versus Solution Phase and Biological Implications," *J. Org. Chem.*, **2010**, *75*, 1848-1854.

Zhachkina, A.; Lee, J. K. "Uracil and Thymine Reactivity in the Gas Phase: The S<sub>N</sub>2 Reaction and Implications for Electron Delocalization in Leaving Groups," *J. Am. Chem. Soc.* **2009**, *131*, 18376-18385.

Zhachkina, A.; Liu, M.; Sun, X.; Amegayibor, F. S.; Lee, J. K. "Gas-Phase Thermochemical Properties of the Damaged Base O-Methylguanine versus Adenine and Guanine," *J. Org. Chem.* **2009**, *74*, 7429-7440.

Tantillo, D. J.; Lee, J. K. "Reaction Mechanisms: Pericyclic Reactions," *Annu. Rep. Prog. Chem., Sect. B*, **2009**, *105*, 285-309.

Liu, M.; Li, T.; Amegayibor, F. S.; Cardoso, D. S.; Fu, Y.; Lee, J. K. "Gas-Phase Thermochemical Properties of Pyrimidine Nucleobases," *J. Org. Chem.*, **2008**, *73*, 9283-9291.

Rozenberg, A.; Lee, J. K. "Theoretical Studies of the Quinolinic Acid to Nicotinic Acid Mononucleotide Transformation," *J. Org. Chem.*, **2008**, *73*, 9314-9319.

Wepukhulu, W. O.; Smiley, V. L.; Vemulapalli, B.; Smiley, J. A.; Phillips, L. M.; Lee, J. K. "Evidence for Pre-Protonation in the Catalytic Reaction of OMP Decarboxylase: Kinetic Isotope Effects using the Remote Double Label Method," *Organic and Biomolecular Chemistry*, **2008**, *6*, 4533-4541 (ALSO FEATURED ON COVER).

Tantillo, D. J.; Lee, J. K. "Reaction Mechanisms: Pericyclic Reactions," *Annu. Rep. Prog. Chem., Sect. B*, **2008**, *104*, 260-283.

Liu, M.; Xu, M.; Lee, J. K. "The Intrinsic Reactivity of Ethenoadenine and Mechanism for Excision from DNA," *J. Org. Chem.*, **2008**, *73*, 5907-5914.

Sun, X.; Lee, J. K. "The Acidity and Proton Affinity of Hypoxanthine in the Gas Phase versus in Solution: Intrinsic Reactivity and Biological Implications," *J. Org. Chem.*, **2007**, *72*, 6548-6555.

Tantillo, D. J.; Lee, J. K. "Reaction Mechanisms: Pericyclic Reactions," *Annu. Rep. Prog. Chem., Sect. B*, **2007**, *103*, 272-293.

**Current and Past**

**NSF 2021-2023.** "Mechanistic Studies of Organic Reactivity," submitted/pending.  
**NSF, 2021.** Instrumentation supplement to "Mechanistic Studies of Organic Reactivity"  
**NSF, 2018-2021.** "Mechanistic Studies of Organic Reactivity"  
**NSF, 2014-2019.** "Mechanistic Studies of Organic Reactivity"  
**NSF, 2010-2015.** "Mechanistic Studies of Organic and Bioorganic Reactivity,"  
**ACS Petroleum Research Fund, 2011-2014.** "Gas Phase Studies of Stable Carbenes and Triazoles"  
**NIH, 2011.** "Triple Quadrupole Mass Spectrometer" (co-PI)  
**NSF, 2006-2010.** "Mechanistic Studies of Nucleotide Reactivity"  
**NSF-CAREER, 2001-2007.** "Mechanistic Studies of Nucleotide Reactivity"  
**Rutgers Busch Foundation 2003-2005.** "Novel MS Studies of DNA Duplexes"  
**Alfred P. Sloan Foundation, 2002-2006.** "Foundation Fellow"  
**ACS Petroleum Research Fund, 1998-2001.** "Method to Simultaneously Quantitate DNA Duplex Stability in the Gas Phase and in Solution"  
**Rutgers Busch Foundation, 1999-2001.** "Novel DNA Binding Studies"  
**Rutgers Strategic Resources and Opportunity Analysis, 2001.** "A Mass Spectrometric Facility for Rutgers University" (co-PI)  
**Research Corporation, 1998-2001.** "DNA Duplex Stability"  
**National Institutes of Environmental Health Sciences, 1998-1999,** "Mass Spectrometric Studies of DNA Duplexes and Adducts"  
**NSF, 1998-1999.** "Purchase of a 300 MHz NMR Spectrometer" (co-PI)

**External Presentations (all are invited addresses)  
since 2007 (as P1)**

International Symposium on Reactive Intermediates and Unusual Molecules, Hiroshima, Japan, July 2022  
Reaction Mechanisms Conference, Boulder, Colorado, co-organizer, June 2022  
Gordon Research Conference, 2021 Gaseous Ions GRC, February 2022  
RESOLV Summer School Solvation Science, German Cluster of Excellence, Bochum, Germany, June 2021  
Barnard College, Department of Chemistry, March 2021  
Houk Research Symposium, Los Angeles, California, August 2020 *delayed by COVID*  
James Flack Norris Award Symposium, ACS Philadelphia, March 2020 *delayed by COVID*, invited speaker (by honoree, Professor Herbert Mayr)  
University of Colorado, Boulder, Colorado, December 2019  
New Jersey Institute of Technology, Newark, New Jersey,, October 2019  
Reaction Mechanisms Conference, Vancouver, Canada, June 2018.  
Isolated Biomolecules Biomolecular Interactions Meeting, Texel Island, The Netherlands, April 2018.  
Catalysis and Computation Symposium, ACS Washington DC, August 2017.  
International Symposium on Reactive Intermediates and Unusual Molecules, Sorrento, Italy, June 2017.  
James Flack Norris Award Symposium, ACS San Francisco, April 2017, organizer and speaker.  
Gordon Research Conference on Gaseous Ions: Structures, Energetics and Reactions, Ventura, California, February 2017, discussion leader+short talk.  
ACS Pacifichem, Honolulu, Hawaii, December 2015.  
Rutgers University Newark, Newark, New Jersey, October 2015.

Princeton ACS Symposium - Houk Symposium + presenter for Ken Houk, Princeton, New Jersey, October 2015.  
 International Bunsen Discussion Meeting on Gas Phase Model Systems for Catalysis, Ulm, Germany, April 2014.  
 International Symposium on Reactive Intermediates and Unusual Molecules (ISRIUM), Hiroshima, Japan, April 2014.  
 City College of New York, New York, New York, March 2014  
 Radicals in the Rockies Conference, Telluride, Colorado, July 2013.  
 Gordon Research Conference on Gaseous Ions, Galveston, Texas, February 2013.  
 Accelerating Reaction Discovery Conference, Telluride, Colorado, August 2012.  
 Reaction Mechanisms Conference, Columbia, Missouri, June 2012.  
 American Chemical Society Pacificchem Meeting, Honolulu, Hawaii, December 2010.  
 NSF Workshop on Physical Organic Chemistry, Austin, Texas January 2010 (invited but could not attend).  
 Wake Forest University, North Carolina, April 2009.  
 University of California, Davis, Department of Chemistry, Davis, California, February 2009.  
 Swarthmore College, Pennsylvania, February 2009  
 10th International Symposium on Organic Free Radicals (ISOFR 10) and 3rd Pacific Symposium on Radical Chemistry (PSRC 3), Heron Island, Australia, August 2008 (invited but could not attend)  
 Houk 65th Birthday Symposium, UCLA, June 2008  
 Georgia Institute of Technology, Department of Chemistry, Atlanta, Georgia, May 2008.  
 International Symposium on Reactive Intermediates and Unusual Molecules (ISRIUM), Heron Island, Australia, August 2007.  
 Gordon Research Conference on Physical Organic Chemistry, Plymouth, New Hampshire, June 2007.  
 Gordon Research Conference on Gas Phase Ion Energetics and Structure, Ventura, California, February 2007.

### Awards and Honors

ACS PROGRESS/Dreyfus Lectureship Award	2006
Alfred P. Sloan Fellowship	2002-2006
NSF CAREER Award	2001-2006
Rutgers Faculty of the Arts and Sciences Undergraduate Teaching Award	2003
National Institutes of Health Postdoctoral Fellowship	1995-1997
Sigma Xi Scientific Honor Society	1994-present
Division of Organic Chemistry ACS Graduate Research Fellowship	1993-1994
Department of Defense Graduate Research Fellowship	1990-1993
National Science Foundation Graduate Research Fellowship (declined)	1990
National Physical Science Consortium Top 80 Woman Scholar	1990
Merrill Presidential Scholar, Outstanding Senior, Cornell University	1990
George Caldwell Prize, Outstanding Senior Chemistry Major	1990
American Institute of Chemists Award, Outstanding Graduating Senior in Chemistry	1990
NSF-REU Fellow	1988, 1989
Phi Beta Kappa National Honor Society	1989
Mortar Board Honor Society	1989
A.W. Laubengayer Award, Outstanding Student in Freshman Chemistry, Cornell U.	1987

### SERVICE

#### External Service

Nomination, National Science Foundation Chemistry Division Committee of Visitors, External Audit Committee (had to decline due to Bochum Germany Lectureship conflict)

University of San Francisco Department of Chemistry External Reviewer, Spring 2020  
 Co-Chair and Organizer, Reaction Mechanisms Conference (to be held June 2020)  
 NSF Review Panel (2019)  
 Associate Editor, ACS Omega (June 2019-present)  
 NSF Review Panel (2018)  
 Site visit panel member, NSF Center for Chemical Innovation (2017)  
 Organizer, ACS James Flack Norris Symposium (2017)  
 Chair, Ion Reactivity session, Gordon Research Conference on Gaseous Ions (2017)  
 Reactive Intermediates Coordinating Committee for several conferences (International  
 Symposium on Reactive Intermediates, Pacificchem ACS, Heron Island Australia  
 meeting)(2016-2019)  
 Search Committee, Editor for premier chemistry journal (confidential) (2016)  
 NSF Review Panel (2016)  
 Chair for Reactive Intermediates session at Pacificchem ACS (2015)  
 Outreach to Westfield public schools through chemistry demonstrations (2014-present)  
 Reaction Mechanisms Conference governing board (2014-2018)  
 External Review Team for Department of Chemistry, Hunter College (2015)  
 NSF Review Panel (2015)  
 High School Outreach through Rutgers Center for Environmental Exposures and  
 Disease (CEED) (high school "field trips" to EOHSI; students have roundtable  
 discussions with researchers and tour labs) (2014-present)  
 Organized "Nucleic Acid Mass Spectrometry," Symposium at the American Society for  
 Mass Spectrometry Annual Conference (the largest and best-attended mass  
 spectrometry conference), May 2009  
 NSF Major Research Instrumentation Panel (2009)  
 NSF Chemistry Division Panel (2008)  
 NIH Study Section "Enabling Bioanalytical Techniques" (2006)  
 American Society for Mass Spectrometry Abstracts Program Committee (2006)  
 "Gas Phase Organic Reactivity" Symposium at the American Society for Mass  
 Spectrometry Annual Conference (the largest and best-attended mass spectrometry  
 conference): organized symposium (2005)  
 "RNA in Mass Spectrometry" Symposium at the American Society for Mass  
 Spectrometry Annual Conference (the largest and best-attended mass spectrometry  
 conference): organized symposium (2005)  
 Referee for journals including *J. Am. Chem. Soc.*, *J. Phys. Chem.*, *J. Org. Chem.*, *J.*  
*Chem. Phys.*, *Eur. J. Mass Spectrom.*, *J. Am. Soc. Mass Spectrom.*, and *Chem.*  
*Rev.* and for funding agencies including NSF and PRF; more than 20 items per year.  
 (1997-present)  
 Orotidine Monophosphate Decarboxylase" for *Topics in Current Chemistry*, Editor  
 (2004)  
 "Science and Technology" Panel in the statewide Governor's Conference for Women,  
 invited panelist (2004)

### Internal Service Departmental and Rutgers University Service

#### Rutgers

Program for Early Faculty Excellence, sponsored by the New Brunswick Provost Office  
 of Faculty Development and Excellence and the New Brunswick Office of Diversity  
 and Inclusion. President Barchi, 2015: "*This new program will focus on creating a  
 diverse recruitment pool, hiring excellent faculty, and mentoring and retaining those  
 faculty by providing scholarly and career support.*" Senior mentor, 2017-present.  
 "Coffee and Chat on STEM Careers" panel, Douglass: invited participant (2017)

BOLD (Building Opportunities for Leadership and Development) Center at Douglass College, Rutgers (historically female college): serve as site mentor for Externship Program (2017-present)

SAS A&P Committee, 2016-2018 (F2016-F2017;F2017 to F2018)

"Changing The Future For Women in Science and Engineering": Invited participant in this university-wide leadership program (2015-2016)

Rutgers Connection Network Faculty-to-Faculty Mentoring Program: Yearlong mentorship program; serving as mentor for young female neurosurgeon at Rutgers Medical School (2015-2016)

NB Strategic Plan - Senior Women Leadership Program Committee -- provided planning for the Leadership Program for Senior Women in Engineering and Science funded by the New Brunswick Strategic Plan Initiative for 2015-16 (2015)

Faculty Learning Community, Office of SciWomen: Yearlong program for faculty to assess university needs and develop a proposal for change (2014-2015)

The Douglass Project: Undergraduate women garner research experience in my lab, many through the Douglass freshman course "Introduction to Scientific Research" (1997-present)

OASIS Leadership and Professional Development Program - yearlong program designed to accelerate the career development and advancement of academic women in STEM fields through workshops, networking, mentoring and individual coaching (2012-2013)

**Department**

Junior Faculty Mentoring (2019-present)  
Organizer, Robert A. Moss Lectureship (2019-present)  
Chemistry of Aging Faculty Search Committee (2018-2019)  
Mass Spectrometry Committee (sometimes Chair) (2015-present)  
Wright Rieman Renovation (2019-present)  
Organic Faculty Search Committee (2016-2017)  
Faculty secretary (2015-present)  
Chair, Library Committee (1999-present)  
Computer Committee (sometimes Chair)(1997-present)  
New Building (2015-2019)  
Graduate Admissions (1997-2013); CHAIR from 2008-2013  
Executive/Policy and Planning Committee (2008-2014)  
Graduate Program and Advising Committee (2008-2013)  
Safety Committee (2013-2014)  
Promotions Committee (2012-2014; KB Lee tenure; Seidel associate to full)  
Chair, Organic Division (2003-2009)  
Graduate Recruiting Committee (2008-2013)  
Chair, Mass Spectrometry Committee (committee no longer exists though I am involved in the departmental MSs) (1999-2008)  
Shop and EE Committee (1997-2008)  
Design Committee (2000-2005)  
Faculty Search Committee (2005-2007; 2012)

**TEACHING****Curriculum Development**

*Undergrad Organic Chemistry 307-308 (class size, typically 20-50 students).* Department offers "special recitation" for A students, designed to attract students to the chemistry major. Developed lecture notes for entire semester from scratch, first in Spring 2015 for 308 then Fall 2015 for 307. Based on students' and course coordinator's evaluations, made a significant difference in this course with my contributions. Chem 308, teaching effectiveness 4.92 (average for course, 3.49). Chem 307, teaching effectiveness 4.88 (average for course, 3.40).

*Undergraduate Organic Chemistry 315 (class size, ~50 students).* The target population for this course (Chemistry 315) is a matter of much debate in our department. Although first introduced to target chemistry majors, the course largely consists of molecular biology and biochemistry majors, a large number of whom hope to enter the medical field. Therefore, using a relatively new textbook, I tried to focus on the biological implications of each organic chemistry concept, such as the importance of chirality when making drugs. Student evaluations rated my "teaching effectiveness" extremely high; 4.75/5.00 (mean of department, 4.00 and mean of 300 level, 4.00).

*Advanced Organic Chemistry 411/511 (class size, typically 20-35 students).* This course (Chemistry 411/511) is typically the first exposure that senior undergraduates and first-year graduate students have beyond "sophomore" organic chemistry. The students tend to be a mix of undergraduates, graduate students who are in our Ph.D. program, and non-matriculated students from local companies such as Merck and BMS. I have worked to modernize the course and make it palatable for such a large cross section of students. During my time teaching this course, I have developed lecture notes "from scratch" to include more modern themes, and have more recently



developed a tutorial section of the course to focus students on learning mechanisms. Student evaluations have been consistently high. (Last year teaching effectiveness score 5.00).

*Senior Seminar in Chemistry 491-492 (class size: ~14 students).* This course is designed to encourage undergraduates to learn how to give scientific talks. The class makeup is quite mixed; the course is required of all chemistry majors and the interest and talent level are highly variable. I teach the students how to plan and deliver a successful presentation, as well as how to critique constructively and ask thoughtful scientific questions. Rating: 4.92/5.00

### Teaching Awards

*RUTGERS FACULTY OF THE ARTS AND SCIENCES UNDERGRADUATE TEACHING AWARD* (2003). University-wide recognition.

*NSF-CAREER* ("Mechanistic Studies of Nucleotide Reactivity"; 2001-2007): Awarded for research plans, as well as for educational initiative to develop a mentoring network for Rutgers women in science. The aim of the Rutgers Women in Physical Sciences Network (PSN) is to increase the number of women choosing and surviving in scientific careers.

### Current Teaching (Jan 2015-present)

**Spring 2019: Chemistry 308.** "Special" recitation designed to attract more majors to the Chemistry program. Developed full semester of notes and contributed to writing all exams. Teaching effectiveness rating of 4.57 (average for the course, 3.38). Sample student comment: "I consistently enjoyed this recitation more than the lectures. It was my favorite hour I spent in class every week."

**Fall 2019: Chemistry 411\_511.** Big graduate class (20 students); constantly overhauling class with new material, examples from current literature, and problem-solving sessions. Teaching effectiveness rating last year, 5.00. Sample student comments: "Things were explained very CLEARLY, unlike most prof's [sic]." "I find that most "right-brained" math teachers can't explain things in full sentences and always just revert to speaking in terms of variables and mathematical operators which you never did, you told the story of what these things actually mean...You're def one of the best teachers I have had and it was a pleasure taking your class."

**Undergraduates in lab:** 22 undergraduate students, of whom 14 are female.

**Graduates in lab:** Have graduated 14 doctoral and 7 Masters students.

**Research Mentoring****FULL LIST, UNDERGRADUATES AND GRADUATES, LEE GROUP**

<i>Name</i>	<i>Status</i>	<i>Dates</i>	<i>Afterwards</i>
Frances Amegayibor	Postdoc	6/04-6/05	Kos Pharmaceuticals
Klaus Block	Postdoc	1/03-1/04	Industry, Germany
Kiruba George	Postdoc	1/14-present	
Jorge Alex Pavon	Postdoc	6/11-11/11	Lancaster Lab
Xiaofeng Shi	Postdoc	9/05-9/06	Boston University MS Facility
Daisy Cardoso	M.S.	1/05-12/07	Bristol Myers Squibb
Pingcheng Chu	M.S.	1/12-8/13	Frontage Pharma
Yunlin Fu	M.S.	1/03-1/05	Bristol Myers Squibb
James Lim	M.S.	1/05-9/06	Microdose Pharmaceuticals
Hao Zeng	M.S.	1/12-7/14	China, industry
Sisi Zhang	M.S.	1/10-1/13	Industry
Tingting Li	M.S.	5/05-9/07	Tris Pharmaceuticals
Meng Xu	M.S.	1/04-7/06	Schering Plough
Mu Chen	Ph.D.	1/09-4/14	Frontage Pharma
Landon Greene	Ph.D.	6/12-6/14	Bristol Myers Squibb
Damon Hinz	Ph.D.	01/19 - present	
Mary Ann Kurinovich	Ph.D.	1/98-7/02	Center for Naval Analysis
Allison Krajewski	Ph.D.	3/16-present	
Alec Levine	M.S.	01/19-01/20	Teaching, Chatham Schools
Min Liu	Ph.D.	9/05-6/11	EOHSI, Rutgers
Brandon Loch	Ph.D.	1/20-present	
Yijie Niu	Ph.D.	9/12-1/18	E-Fund Financial Svcs, China
Su Pan	Ph.D.	6/01-4/06	Bristol Myers Squibb
Linda M. Phillips	Ph.D.	9/98-12/04/pres.	Postdoc, Lee lab
Suzanne M. Schulze	Ph.D.	1/98-12/02	Center for Naval Analysis
Seema Sharma	Ph.D.	9/98-6/04	Finnigan MS
Xuejun Sun	Ph.D.	1/04-12/09	Lexicon Pharmaceuticals
Yuan Tian	Ph.D.	1/11-9/15	Computer Science, Rutgers
Kai Wang	Ph.D.	1/09-1/14	Frontage Pharma
Ning Wang	Ph.D.	1/16-10/1/19	Postdoc
Jiahui Xu	Ph.D.	1/15-2/1/20	
Anna Zhachkina	Ph.D.	1/07-1/12	Watson Pharma
Lanxin Zhang	Ph.D.	1/18-present	
Aamina Ali	undergrad	01/18-01/19	
Tracey Botha	undergrad	6/98-6/01	BOC Gases
Julianne Davis	undergrad	1/12-7/12	Graduate school, UPenn
Michelle DeRitter	undergrad	6/01-6/02	Graduate school, UPenn
Kayla Fowler	undergrad	1/14-7/14	Director, Experiential STEM, RU
Jenna Holland	undergrad	1/15-/6/15	Graduated, Materials Eng.
Zaniya Jones	undergrad	1/17-6/17	Business school
Alison Kimsey	undergrad	1/05-6/05	URC ugrad at Raritan Valley
Catherine Kratka	undergrad	1/20-present	
Yang Liu	undergrad	9/13-1/14	Jilin University
Daniel Marchiarullo	undergrad	8/02-6/03	Graduate school, U. of Virginia
Jimmy Patel	undergrad	1/12-5/13	MD/PhD, Rutgers
Kumpal Patel	undergrad	1/16-06/16	Dental school, Rutgers
Aaron Petronico	undergrad	12/08-6/11	PhD, Illinois, Urbana Champaign

Min Qin	undergrad	9/13-1/14	Jilin University
Uthman Qureshi	undergrad	1/20-present	
Steven Rosenberg	undergrad	9/01-9/02	Medical school
Muhil Ravichandran	undergrad	5/17-present	Pharmacy
Aleksandr Rozenberg	undergrad	9/05-7/09	NYU MD/PhD program
Sai Tong	undergrad	9/98-6/01	Chemical engineering position
Kathryn Verhoeven	undergrad	6/02-7/03	Graduate school, Purdue Univ.
Chris Westergom	undergrad	6/00-6/01	Croda Chemical Company
Wei Yueju	undergrad	9/12-1/12	Jilin University
Victoria Zelikson	undergrad	1/14-7/16	Medical school

**CURRENT GROUP MEMBERS, JANUARY 2021**

*Ph.D. Students:* Damon Hinz, Allison Krajewski, Brandon Loch, Lanxin Zhang

*Postdoc (volunteers):* Kiruba George, Linda Phillips