

**Curriculum Vitae**  
**Jane M. Liu**

Pomona College  
Chemistry Department  
Claremont, CA 91711  
USA

Office: (909) 607-8832  
E-mail: [jane.liu@pomona.edu](mailto:jane.liu@pomona.edu)  
[research.pomona.edu/jane-liu](http://research.pomona.edu/jane-liu)

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## EDUCATION AND TRAINING

Tufts University School of Medicine, Boston, MA, USA: 2006-2009  
*IRACDA Postdoctoral Fellow*

Harvard University, Cambridge, MA, USA: 2001-2006  
*Ph.D., Chemistry*

Swarthmore College, Swarthmore, PA, USA: 1996-2000  
*B.A., Biochemistry, High Honors*

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## ACADEMIC POSITIONS HELD

**Professor of Chemistry, Pomona College: 2023-present**

*Teaching: General Chemistry, Organic Chemistry, Biochemistry, Chemical Biology, and Research in Chemistry and Molecular Biology*

**Associate Professor of Chemistry, Pomona College: 2018-2023**

**Assistant Professor of Chemistry, Pomona College: 2012-2018**

**Assistant Professor of Chemistry, Drew University: 2009-2012**

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## RESEARCH EXPERIENCE

**Principal Investigator, Pomona College, Department of Chemistry: 2012-present**

*Investigating gene regulation in *Vibrio cholerae*; engineering nucleic acid-based biosensors; chemistry education*

**Sabbatical Leave Research: Visiting Scholar, Division of Biological Sciences at the University of California, San Diego: Spring 2023**

*Department of Ecology, Behavior & Evolution (Laboratory of J. Meyer). Research in bacteriophages and host-phage co-evolution*

**Sabbatical Leave Research: Visiting Associate of Biology and Biological Engineering, California Institute of Technology: 2015-2016**

*Proteome Exploration Laboratory (Laboratory directed by Sonja Hess). Research in mass spectrometry-based proteomics*

**Principal Investigator, Drew University, Department of Chemistry: 2009-2012**

*Research on non-canonical RNAs in *Escherichia coli* and *Vibrio cholerae**

**IRACDA Postdoctoral Fellow, Tufts University School of Medicine: 2006-2009**

*Department of Molecular Biology and Microbiology (Laboratory of A. Camilli). Experimental discovery of new sRNAs in the enteric pathogen *Vibrio cholerae* using direct cloning, 5S/tRNA-depletion, and massively parallel sequencing*

**NSF Predoctoral Fellow/Graduate Research Assistant, Harvard University: 2001-2006**

*Department of Chemistry and Chemical Biology (Laboratory of D.R. Liu). Functional dissection of natural RNAs in *Escherichia coli* and *Saccharomyces cerevisiae* by nonhomologous random recombination and in vivo selections*

**Undergraduate Research Assistant, Swarthmore College: 1999-2000**

*Department of Chemistry (Laboratory of R.S. Paley). Honors thesis exploring intramolecular pinacol coupling and ring-closing metathesis of enantiopure sulfinyl iron(0) dienes*

**Summer Research Assistant, Rutgers University - New Brunswick: 1998**

Department of Chemistry (Laboratory of R.A. Jones). *Synthesized <sup>15</sup>N-labeled guanosine for investigations on metal-binding by RNA*

**FELLOWSHIPS, GRANTS, AWARDS, AND RECOGNITION**

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**Grants**

Hirsch Research Initiation Grant, Pomona College: 2023-2025

Title: "Molecular Investigations into the Persistence of *Vibrio cholerae*"

Principal Investigator

Large Research Grant, Pomona College: 2023

Title: "Elucidating Riboswitch Structure"

Principal Investigator

Howard Hughes Medical Institute Inclusive Excellence 3 (IE3) Initiative Grant: 2022-2028

Co-Program Director

Howard Hughes Medical Institute IE3 Learning Grant: 2021-2023

Program Director

National Institutes of Health Research Grant R15 AI090606: 2010-2023

Title: "The Regulatory Networks that Allow *Vibrio cholerae* to Survive Between Infections and Epidemics"

Principal Investigator

Large Research Grant, Pomona College: 2020

Title: "One to Rule Them All? Determining the Regulatory Role of Cra in *Vibrio cholerae*"

Principal Investigator

National Science Foundation Research Grant IUSE-1841992: 2019-2022

Title: "Development of Novel Augmented Reality Tool for Teaching Molecular Visualization in Biochemistry"

Senior Personnel

Henry Dreyfus Teacher-Scholar Award: 2016-2021

Title: "Molecular Understanding and Applications of Bacterial RNAs"

Principal Investigator

National Science Foundation Research Grant CBET-1258307: 2012-2018

Title: "CAREER: Riboswitch-Based Whole-Cell Biosensors to Detect Small Organic Molecules: A Combined Educational and Research Plan"

Principal Investigator

Training in Education and Critical Research Skills (TEACRS) Postdoctoral Fellowship, National Institute of General Medical Science (NIGMS): 2006-2009

National Science Foundation Graduate Research Fellowship: 2002-2005

**Professional awards and recognition**

Robert Holland Jr. Award for Research Excellence and Contributions to Diversity, Equity and Inclusion, Research Corporation for Scientific Advancement: 2023

Wig Distinguished Professor Award for Excellence in Teaching, Pomona College: 2015, 2020

National Institutes of Health Academic Research Enhancement Award: 2010, 2014, 2019

Jean Dreyfus Lectureship for Undergraduate Institutions (co-lead Principal Investigator): 2017

Henry Dreyfus Teacher-Scholar Award: 2016

National Science Foundation CAREER Award: 2012  
Distinction in Teaching at Harvard University: 2001, 2002 (x2), 2004  
Elected to Phi Beta Kappa: 2000  
Elected to Sigma Xi: 2000

**PUBLICATIONS** (asterisk: work from J. Liu's independent career; underlined: students mentored by J. Liu)

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1. \*Perla AA, Hollar S, Muzikar K, **Liu JM**. Using CREATE and scientific literature to teach chemistry. *Journal of Chemical Education* **2023** 100 (2), 612-618.
2. \*Hollond C, Sung R-J, **Liu JM**. Integrating anti-racism, social justice, and equity themes in a biochemistry class. *Journal of Chemical Education*. **2022**. 99, 202-210.
3. \*Beck C, Perry S, Stoebel DM, **Liu JM**. Cra and cAMP receptor protein have opposing roles in the regulation of *fruB* in *Vibrio cholerae*. *Journal of Bacteriology*. **2021**. 203, e00044-21.
4. \*Sung R-J, Wilson A, Lo S, Crowl L, Nardi J, St. Clair K, **Liu JM**. Biochem AR—an augmented reality educational tool for teaching macromolecular structure and function. *Journal of Chemical Education*. **2020**. 97, 147-153.
5. \*Zhang M, **Liu JM**. Transcription of *cis* antisense small RNA MtlS in *Vibrio cholerae* is regulated by transcription of its target gene, *mtlA*. *Journal of Bacteriology*. **2019**. 201, e00178-19.
6. \*Page K, Shaffer J, Lin S, Zhang M, **Liu JM**. Engineering riboswitches *in vivo* using dual genetic selection and fluorescence-activated cell sorting. *ACS Synthetic Biology*. **2018**. 7, 2000-6.
7. \*Byer T, Wang J, Zhang M, Blachman A, Vather N, Visser B, **Liu JM**. MtlR negatively regulates mannitol utilization by *Vibrio cholerae*. *Microbiology*. **2017**, 163, 1902-1911.
8. \***Liu JM**, Sweredoski MJ, Hess S. Improved 6-plex tandem mass tags quantification throughput using a linear ion trap-high-energy collision induced dissociation MS3 scan. *Analytical Chemistry*. **2016**, 88, 7471-7475.
9. \*Vasquez TE, Saldaña C, Muzikar KA, Mashek D, **Liu JM**. Searching for synthetic antimicrobial peptides: An experiment for organic chemistry students. *Journal of Chemical Education*. **2016**, 93, 1103–1107.
10. \*Chang H, Replogle JM, Vather N, Tsao-Wu M, Mistry R, **Liu JM**. A *cis*-regulatory antisense RNA represses translation in *Vibrio cholerae* through extensive complementarity and proximity to the target locus. *RNA Biology*. **2015**, 12, 136-148.
11. \*Mustachio LM, Aksit S, Mistry RH, Scheffler R, Yamada A, **Liu JM**. The *Vibrio cholerae* mannitol transporter is regulated post-transcriptionally by the MtlS small RNA. *Journal of Bacteriology*. **2012**, 194, 598-606.
12. \***Liu JM**, Camilli A. Discovery of sRNAs by high-throughput sequencing. In: Kwon YM, Ricke SC eds. *Methods in Molecular Biology*. Vol 733. New York, NY: Humana Press; **2011**.
13. \***Liu JM**, Camilli A. A broadening world of bacterial small RNAs. *Current Opinions in Microbiology* **2010**, 13, 18-23.
14. Wang W, Zha J, Han Q, Wang G, Yang G, Shallop AJ, **Liu JM**, Gaffney BL, Jones, RA. Modulation of RNA metal binding by flanking bases: <sup>15</sup>N NMR evaluation of GC, tandem GU, and tandem GA sites. *Nucleosides, Nucleotides & Nucleic Acids* **2009**, 28, 424-434.
15. Paley RS, Berry KE, **Liu JM**, Sanan TT. Diastereoselective intramolecular pinacol couplings of sulfinyl iron(0) diene complexes. *Journal of Organic Chemistry* **2009**, 74, 1611-1620.
16. **Liu JM**, Livny J, Lawrence MS, Kimball MD, Waldor MK, Camilli A. Experimental discovery of sRNAs in *Vibrio cholerae* by direct cloning, 5S/tRNA-depletion and parallel sequencing. *Nucleic Acids Research* **2009**, 37, e46.

17. **Liu JM**, Liu, DR. Discovery of a mRNA mitochondrial localization element in *Saccharomyces cerevisiae* by nonhomologous random recombination and *in vivo* selection. *Nucleic Acids Research* **2007**, *35*, 6750-6761.
18. **Liu JM**, Bittker JA, Lonshteyn M, Liu DR. Functional dissection of sRNA translational regulators using nonhomologous random recombination and *in vivo* selection. *Chemistry & Biology* **2005**, *12*, 757-767.
19. Bittker JA, Le BV, **Liu JM**, Liu DR. Directed evolution of protein enzymes using nonhomologous random recombination. *Proceedings of the National Academy of Sciences USA* **2004**, *101*, 7011-7016.
20. Paley RS, **Liu JM**, Lichtenstein BR, Knoedler VL, Sanan TT, Adams DJ, Fernandez J, Rablen PR. Simultaneous and stereoselective formation of planar and axial chiralities in enantiopure sulfinyl iron diene complexes. *Organic Letters* **2003**, *5*, 309-312.

**SELECTED PRESENTATIONS** (asterisk: work from J. Liu's independent career; underlined: students mentored by J. Liu)

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1. \*George M, Hollond C, **Liu JM**. **2022**. Regulation of – and by – the mannitol operon repressor (MtlR) in *Vibrio cholerae*. Gordon Research Conference, Sensory Transduction in Microorganisms: Ventura, CA. (Poster Presentation)
2. \***Liu JM**, Hollond C, Sung R-J, Hollar S. **2022**. Integrating antiracism, social justice, and equity themes throughout an undergraduate biochemistry course. Biennial Conference on Chemical Education: West Lafayette, IN. (Oral Presentation)
3. \***Liu JM**, Perla A, Hollar S. **2022**. Using scientific literature to increase students' understanding of what it means to be a scientist. Biennial Conference on Chemical Education: West Lafayette, IN. (Oral Presentation)
4. \*Weiss A, Mackey E, **Liu JM**. **2022** *Vibrio cholerae*'s response to mannitol. Gordon Research Conference, Microbial Stress Response: South Hadley, MA. (Poster Presentation)
5. \***Liu JM**. **2021**. Liu Lab Biosensors: They Started in a Swarthmore Seminar. Professor Robert Paley Retirement Symposium: Swarthmore College. (Invited Talk on Research)
6. \***Liu JM**. **2021**. What's in that Cell?! The Making of a Biosensor. Denison University. (Invited Seminar on Research)
7. \***Liu JM**, Hollond C, Sung R-J. **2021**. Incorporating anti-racism and equity themes in a biochemistry class. ASBMB 2021 Annual Meeting: Virtual Conference. (Poster Presentation)
8. \*Beck C, Perry S, **Liu JM**. **2020**. Regulation of the genes encoding the fructose-specific transport system of *Vibrio cholerae*. Gordon Research Conference, Sensory Transduction in Microorganisms: Ventura, CA. (Poster Presentation)
9. \*Beck C, Perry S, **Liu JM**. **2019**. CRP and Cra have opposing activities in the regulation of the fructose operon in *Vibrio cholerae*. Molecular Genetics of Bacteria and Phage: Madison, WI. (Poster Presentation)
10. \***Liu JM**. **2019**. Applying the C.R.E.A.T.E. approach to bridge the jump from introductory to upper-level chemistry courses. Gordon Research Conference, Chemistry Education Research and Practice: Lewiston, ME. (Poster Presentation)
11. \***Liu JM**. **2019**. On Again and Off Again: A Riboswitch Story. Loyola Marymount University. (Invited Seminar on Research)
12. \***Liu JM**, Page K, Shaffer J, Lin S. **2018**. Evolving novel riboswitches through *in vivo* genetic selection and cell sorting. 5<sup>th</sup> International Conference on Regulating with RNA in Bacteria and Archaea: Seville, Spain. (Poster Presentation)
13. \***Liu JM**. **2018**. RNA + Bacteria + Evolution = Sensors! Department of Chemistry. Hope College. (Invited Seminar on Research)

14. \*Hanson P<sup>‡</sup>, Kowalski JR<sup>‡</sup>, **Liu JM<sup>‡</sup>**, Stultz L<sup>‡</sup>. **2017**. Creating synergy by integrating interdisciplinary research and teaching (I<sup>2</sup>RT). 2017 IRACDA Conference: Birmingham, AL. (1.5-hour Symposium/Mini-Workshop) [<sup>‡</sup>Co-presenters]
15. \*Cunningham A<sup>‡</sup> and **Liu JM<sup>‡</sup>**. **2017**. Starting with the end in mind: Selecting assessment tools that improve learning and satisfy accountability. 2017 WASC Senior College and University Commission Academic Resource Conference: San Diego, CA. (1-hour Symposium/Mini-Workshop) [<sup>‡</sup>Co-presenters]
16. \***Liu JM**. **2016**. Creating riboswitch-based whole cell biosensors for small organic molecules. 252nd ACS National Meeting: Philadelphia, PA. (Oral Presentation, Young Academic Investigator Symposium)
17. \*Coyle MC, Hansen E, Sweredoski MJ, Solvik T, Moradian A, Hess S, **Liu JM**. **2016** The sRNA MtlS and post-translational regulation of the mannitol transporter in *Vibrio cholerae*. Gordon Research Conference, Microbial Stress Response: South Hadley, MA. (Poster Presentation)
18. \***Liu JM**, Sweredoski MJ, Hess S. **2016** Increasing protein quantification in 6-plex TMT experiments. 64th ASMS Conference on Mass Spectrometry and Allied Topics: San Antonio, TX. (Poster Presentation)
19. \*Vather N, Blachman A, **Liu JM**. **2016** MtlR regulates transport of the sugar alcohol mannitol in *Vibrio cholerae*. Gordon Research Conference, Sensory Transduction in Microorganisms: Ventura, CA. (Poster Presentation)
20. \*Coyle MC, Hansen E, Sweredoski MJ, Solvik T, Moradian A, Hess S, **Liu JM**. **2015**. Mass spectrometry-based identification of proteins affected by the mannitol operon small RNA, MtlS, in *Vibrio cholerae*. 4<sup>th</sup> International Conference on Regulating with RNA in Bacteria and Archaea: Cancun, Mexico. (Poster Presentation)
21. \***Liu JM**. **2014**. Small RNAs, Big Roles in Gene Regulation. University of California, Riverside. (Invited Seminar on Research)
22. \*Scheffler R, Vather N, Replogle J, Mistry R, **Liu JM**. **2013** A noncoding RNA inhibits synthesis of the mannitol permease in *Vibrio cholerae*. 3<sup>rd</sup> International Conference on Regulating with RNA in Bacteria: Würzburg, Germany. (Poster Presentation)
23. \***Liu JM**. **2013**. Small RNAs and sugars in *Vibrio cholerae*: Sweet regulation. Harvey Mudd College. (Invited Seminar on Research)
24. \***Liu JM**. **2012**. Great big world of bacterial small RNAs. University of Southern California. (Invited Seminar on Research)
25. \***Liu JM**, Mustachio LM, Aksit A, Mistry R. **2011**. The *Vibrio cholerae* MtlS small RNA regulates gene expression in response to changes in carbon source. ASM Conference on Regulating RNA in Bacteria: San Juan, Puerto Rico. (Poster Presentation)
26. **Liu JM**, Kimball MD, Camilli A. **2009**. An sRNA regulator of mannitol uptake in *Vibrio cholerae*. Symposium on Bacterial Cell Biology and Pathogenesis: Umea, Sweden. (Oral Presentation)

## RESEARCH EXPERIENCE WITH STUDENTS

**Supervised Research Students at Pomona College** (underlined: STEM student from minoritized group)

<sup>‡</sup>Beckman Scholar; <sup>§</sup>Fulbright Scholar / Watson Fellow; \*Goldwater Scholar; \*\*ASM-Undergraduate Research Fellow

<b>Student (class year)</b>	<b>Term(s)</b>	<b>Current/last known position</b>
Alan Wang ('25)	Sept 2023 – present	current Pomona undergraduate
Eleanor Nicholson ('24)	June 2023 – present	current Pomona undergraduate
Gabby Calvi ('25)	June 2023 – present	current Pomona undergraduate
Zheous Abalos ('25)	June 2023 – present	current Pomona undergraduate
Heidi Xu ('24)	Summer 2023	current Pomona undergraduate
Elizabeth Sohn ('25)	Summer 2023	current Pomona undergraduate

Eric Liu ('25)	Summer 2023	current Pomona undergraduate
Seohyeon Lee ('25)	Summer 2023	current Pomona undergraduate
Christabel Akowuah ('25)	Summer 2023	current Pomona undergraduate
Giuliano Richetta ('25)	Spring 2023 – present	current Pomona undergraduate
Eleanor Mackey ('22)	Sept 2021 – May 2023	M.D. student, Albert Einstein
Eugene Kwon ('23)	Summer 2021	Ph.D. student, UCSB
<u>Andrea Perla</u> ('22)	Jan 2021 – May 2022	Teachers College, Columbia Univ.
Amy Kaneshiro ('22)	Jan 2021 – May 2022	Research Assistant, NIH
David Kim ('23)	Oct 2020 – Aug 2021	B.A. Neuroscience
Dylan Santa ('23)	Sept 2020 – Dec 2020	B.A. Chemistry
Jo Rodriguez ('21)	Sept 2020 – May 2021	B.A. Chemistry & Theatre
<u>Christabel Egemba</u> ('21)	Sept 2020 – May 2021	B.A. Chemistry
Megan Chang ('23)	May 2020 – May 2023	Master's student, Stanford University
Alana Weiss ('22)	May 2020 – May 2022	B.A. Molecular Biology
Christine Cannon ('23)	Summer 2020 - May 2023	Terray Therapeutics
Nathalie Hong ('21)	May 2020 – May 2021	Ph.D. student, Stanford University
Sayde Perry*§ ('22)	May 2019 – May 2022	Fulbright Scholar
Eric Tang ('21)	May 2019 – May 2021	Research Assistant, Harvey Mudd College
Noelle Mitchell ('20)	Jan 2019 – May 2020	Ph.D. student, UCLA
Chanha Kim ('22)	Jan 2019 – Jul 2019	B.A. Computer Science
Calder Hollond ('21)	Jan 2019 – May 2021	M.D. student, NYU
<u>Caitlin Halligan</u> ('21)	Jan 2019 – May 2019	Ph.D. student, UCLA
<u>Micayla George</u> ('20)	Jan 2019 – May 2020	Research Assistant, Broad Institute
Hussein Faara ('21)	Jan 2019 – May 2019	B.A. Molecular Biology
<u>Sabrina Mendez-Contreras</u> ('18)	May 2017 – May 2018	M.D. student, UCSF
Maryann Zhao‡ ('18)	Jan 2017 – Aug 2018	M.D. student, Harvard University
Jessica Wang ('18)	Jan 2017– May 2018	M.D. student, UC Irvine
Samuel Lin ('20)	Jan 2017 – Jul 2017	B.A. Economics
<u>Theodore Lang</u> ('19)	Jan 2017 – May 2019	M.D. student, U. Chicago
Christina Beck*‡ ('20)	Jan 2017 – Aug 2020	Ph.D. student, MIT
Katharine Page ('17)	May 2016 – Aug 2017	Ph.D. student, Caltech
Mark Zhang‡ ('17)	Mar 2016 – Jul 2018	Ph.D. student, Caltech
<u>Tanner Byer*§</u> ('17)	Mar 2016 – May 2017	Watson Fellow
Elisabeth Hansen§ ('16)	Jan 2015 – May 2016	M.D. student, Harvard University
Marek Zorawski§ ('16)	Jan 2015 – May 2016	M.D./Ph.D. student, Duke University
Jeremy Shaffer ('15)	Sept 2014 – Aug 2016	Master's student, Cornell University
Maya Tsao-Wu ('17)	May 2014 – May 2017	M.D. student, Penn State
<u>Erick Velasquez</u> ('16)	Mar 2014 – May 2016	Ph.D., UCLA
Anna Blachman ('16)	Mar 2014 – May 2016	EcoTruck (Ho Chi Minh City, Vietnam)
Catherine Song ('17)	Jan 2014 – May 2015	M.D. student, USC
Daniel Phan ('16)	Jan 2014 – May 2016	M.D., USC
Laurel Estes ('15)	Jan 2014 – May 2015	Ginkgo Bioworks, Inc.
<u>Cristina Saldaña</u> ('15)	Summer 2013	Master's Engineering, UC Irvine
Howard Chang ('14)	May 2013 – May 2014	M.D. student, Johns Hopkins
Abe Cass ('14)	Jan 2013 – Aug 2013	Schwarzman Scholar
Maxwell Coyle ('14)	Jan 2013 – May 2014	Ph.D. student, UC Berkeley
John Replogle ('14)	Jan 2013 – May 2014	Ph.D., MIT
Kristina Solvik** ('15)	Jan 2013 – May 2015	Ph.D. student, UCSF
<u>Naomi Vather</u> ('15)	Jan 2013 – May 2015	M.D., U. Iowa

**Supervised Research Students at Drew University** (underlined: STEM student from minoritized group)

\*Goldwater Scholar; \*\*ASM-Undergraduate Research Fellow; #Successfully wrote and defended honors research thesis

<b>Student (class year)</b>	<b>Term(s)</b>	<b>Current/last known position</b>
<u>Stacey Ceron</u> ('12)	Sept 2011 – May 2012	Ph.D., Dartmouth College
Aleksander Kubiak ('13)	Summer 2011	M.D., Drexel University
Taras Varshavsky ('13)	Summer 2011	M.D., Rutgers University
Jarod Grossman ('12)	Jan 2011 – Aug 2011	Ph.D., Syracuse University
Ross Shamby ('11)	Fall 2010	B.A. Biochem. Mol. Biol
Lalita Nekkanti ('11)	Fall 2010	Dental student, Tufts University
Robert Scheffler*# ('14)	Jul 2010 – May 2014	Ph.D., Princeton University
Ronak Mistry#('13)	May 2010 – May 2013	D.O., Rowan University
Akikuni Yamada ('11)	Jun 2010 – Dec 2010	B.A. Biochem. Mol. Biol
<u>Selime Aksit**#</u> ('12)	Jan 2010 – Aug 2012	Med student, Hacettepe Medical School
Lisa Maria Mustachio#('11)	Jan 2010 – May 2011	Ph.D., Dartmouth College

### **SELECTED STUDENT RESEARCH PRESENTATIONS – PEER-REVIEWED ABSTRACTS**

(underlined: students mentored by J. Liu; \*: presenting author)

1. Mackey E\* and Liu JM. **2023**. Proteomic changes of *Vibrio cholerae* in response to mannitol. DiscoverBMB 2023: Seattle, WA. (Poster Presentation)
2. Beck C\*, Perry S, Liu JM. **2020**. CRP and Cra have antagonistic roles in the regulation of the fructose operon in *Vibrio cholerae*. ASBMB 2020 Annual Meeting: San Diego, CA. (Poster Presentation) Conference canceled.
3. George M\* and Liu JM. **2020**. Regulation of the mannitol locus by MtlR in *Vibrio cholerae*. ASBMB 2020 Annual Meeting: San Diego, CA. (Poster Presentation) Conference canceled.
4. Zhang M\* and Liu JM. **2018**. Exploring the regulation of a *cis*-antisense RNA in *Vibrio cholerae*. ASM Microbe 2018: Atlanta, GA. (Poster Presentation)
5. Mendez-Contreras S\*, Tsao-Wu M, Liu JM. **2018**. Identifying regulatory targets of the small RNA MtlS in *Vibrio cholerae*. ASBMB 2018 Annual Meeting: San Diego, CA. (Poster Presentation)
6. Wang J\*, Zhang M, Liu JM. **2018**. Transcriptional and post-transcriptional regulation of *mtlA* in *Vibrio cholerae*. ASBMB 2018 Annual Meeting: San Diego, CA. (Poster Presentation)
7. Hansen EE\*, Coyle MC, Liu JM. **2016**. Investigating the mechanism by which the small RNA MtlS regulates the mannitol protein transporter at the post-translational level in *Vibrio cholerae*. ASBMB 2016 Annual Meeting: San Diego, CA. (Oral Presentation)
8. Zorawski M\*, Shaffer J, Velasquez E, Liu JM. **2016**. Creating a riboswitch-based whole-cell biosensor for bisphenol A. ASBMB 2016 Annual Meeting: San Diego, CA. (Poster Presentation)
9. Shaffer J\*, Velasquez E, Liu JM. **2015**. Creating a riboswitch-based whole-cell biosensor for BPA. 2015 Synthetic Biology: Engineering, Evolution and Design (SEED) Conference: Boston, MA. (Poster Presentation)
10. Shaffer J\*, Phan D\*, Velasquez E, Liu JM. **2015**. Creating riboswitch-based whole cell biosensors for small organic molecules. 115<sup>th</sup> General Meeting of the American Society for Microbiology: New Orleans, LA. (Poster Presentation)
11. Vather N\*, Tsao-Wu M\*, Liu JM. **2015**. MtlR is one of several regulators of mannitol transporter synthesis in *Vibrio cholerae*. 115<sup>th</sup> General Meeting of the American Society for Microbiology: New Orleans, LA. (Poster Presentation)
12. Solvik TA\*, Liu JM. **2015**. Investigating the role of CRP in mannitol operon small RNA (MtlS) expression in *Vibrio cholerae*. 115<sup>th</sup> General Meeting of the American Society for Microbiology: New Orleans, LA. (Poster Presentation)

13. Coyle M\*, Replogle J\*, Sweredoski M, Hess S, **Liu JM. 2014**. The MtlS small RNA affects protein levels in *Vibrio cholerae*. Keystone Symposium on Long Noncoding RNAs, Marching Toward Mechanism: Santa Fe, NM. (Poster Presentation)
14. Chang H\*, Vather N, **Liu JM. 2014**. Post-transcriptional regulation of MtlA in *Vibrio cholerae* by a small non-coding RNA. Keystone Symposium on Long Noncoding RNAs, Marching Toward Mechanism: Santa Fe, NM. (Poster Presentation)
15. Aksit S\*, Mustachio LM, Scheffler R, **Liu JM. 2012**. Expression of MtlS sRNA negatively affects MtlA protein synthesis in *Vibrio cholerae*. 112<sup>th</sup> General Meeting of the American Society for Microbiology: San Francisco, CA. (Poster Presentation)
16. Scheffler R\*, Mistry R\*, **Liu JM. 2012**. Dual regulation of mannitol transporter synthesis in *Vibrio cholerae*. 112<sup>th</sup> General Meeting of the American Society for Microbiology: San Francisco, CA. (Poster Presentation)
17. Aksit S\*, Mustachio LM, **Liu JM. 2011**. The MtlS small RNA regulates mannitol transport in *Vibrio cholerae*. 111<sup>th</sup> General Meeting of the American Society for Microbiology: New Orleans, LA. (Poster Presentation)
18. Mustachio LM\*, Mistry R\*, Aksit S, **Liu JM. 2011**. The *Vibrio cholerae* mannitol transporter is regulated post-transcriptionally. 111<sup>th</sup> General Meeting of the American Society for Microbiology: New Orleans, LA. (Poster Presentation)

## OTHER SERVICE AND ACTIVITIES

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Panelist, SoCalBio W3 (Women, Work & Wisdom): From Idea through Funding + Beyond, Magnify @ CNSI: 2024

External Reviewer, Review of Chemistry Program, Haverford College: 2024

Panelist, Inclusive Teaching Faculty Panel – *How do I know it's working?*, Claremont Colleges: 2023

Panelist, Career Panel at Summer Symposium @ Pipeline Programs, Tufts University: 2023

External Reviewer, Review of BMB Program, Gustavus Adolphus College: 2023

Workshop Leader, Foundational Dialogues at Bates College, Department of Chemistry: 2022

Participant, Heal.LA Bioscience & Healthcare Accelerator Program: 2022-2023

Participant, HERS Leadership Institute: 2022

Leadership Member, Learning Community Cluster 4, Inclusive Excellence 3 Initiative of HHMI: 2022-2023

Faculty Speaker for *Take Two* Commencement Ceremony for Class of 2020: 2022

Participant, Innovation Life Sciences Cohort, Springboard Enterprises: 2022

Co-Founder and CEO, BRT Biotechnologies, Inc.: 2021-present

Fellow, Claremont Faculty Leadership Program: 2020-2021

Faculty Advisor, Pomona Scholars of Science 7: 2019-2021

Speaker, "A Short Guide to CRISPR," Mt. San Antonio Gardens Retirement Community Seminar Series: 2019

Speaker, "Life at a PUI Through Calendar," Science Leadership and Management Seminar Series, UC Berkeley: 2018

Panelist for "Funding at PUIs", hosted by TEACRS, Tufts University: 2015; 2018

Panel reviewer for NSF CBET grant proposals: 2014

Panelist for "Bay Area Postdocs: Workshop on Scientific Teaching", hosted by SEPAL: 2014

Workshop Leader, Grant Writing Workshop, hosted by TEACRS, Tufts University: 2013

Panelist for "Negotiating the Job Offer", National IRACDA Conference 2010: 2010



Ad hoc reviewer for *ACS Synthetic Biology*, *Biomedical and Environmental Sciences*, *Journal of Chemical Education*, *JoVE*, *microLife*, *npj Biofilms and Microbiomes*, *Oxford University Press*, *PLoS One*, *PNAS*, *WIREs RNA*

#### **SELECTED POMONA COLLEGE SERVICE**

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2023 – 2025 Faculty Personnel Committee  
2022 – 2024 Inclusive Excellence Committee  
2020 – 2021 Faculty Committee on Strategic Vision Implementation  
2020 – 2021 Research Committee, chair  
2019 – 2022 HHMI Working Group / Inclusive Excellence Committee, chair  
2019 – 2020 Ad hoc committee of assessment of P/NC grading for CHEM 1A  
2019 – 2020 Research Committee  
Spring 2019 Health Sciences Committee  
2018 – 2020 Strategic Planning Steering Committee (elected position)  
2016 – 2018 Executive Committee / Division II chair (elected position)  
2013 – 2015 Academic Procedures Committee / Academic Discipline Board / Academic Standards Committee