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Education

- 2007—2011** **Ph.D. Biomedical Engineering**
Northwestern University, Evanston, IL
- 2002—2006** **B.A. Honors in Molecular Biology**
Scripps College, Claremont, CA

Academic Positions

- 2016—Present** **Assistant Professor, University of Southern California**
2019—Present Dr. Karl Jacob Jr. and Karl Jacob III Early Career Chair
2018—Present Courtesy: Dept. of Medicine-Division of Nephrology and Hypertension
2018—Present Courtesy: Dept. of Surgery-Division of Vascular Surgery and Endovascular
Therapy
2018—Present Courtesy: Chemical Engineering and Materials Science
2017—Present Courtesy: Stem Cell Biology and Regenerative Medicine
2017—Present Associate Member: Norris Comprehensive Cancer Center
2016—Present Department of Biomedical Engineering
- 2012—2016** **Research Associate/Postdoctoral Fellow, University of Chicago**
Institute for Molecular Engineering
- 2011—2012** **Postdoctoral Fellow, Northwestern University**
Institute for BioNanotechnology in Medicine
Dept. of Materials Science and Engineering

Awards and Honors

- 2019 New Innovator, IEEE-Nanomed
- 2019-24 Karl Jacob Jr. and Karl Jacob III Early Career Chair
- 2019 Emerging Investigator, Journal of Materials Chemistry
- 2019 National Academy of Engineering Frontiers in Engineering Participant
- 2019 Outstanding Young Engineer Award, Orange County Engineering Council
- 2018-23 DP2 New Innovator Award, National Institutes of Health
- 2018 Mentoring Award, Faculty Mentoring Undergraduate Students, USC
- 2018 Young Innovator Award in Nanobiotechnology, Nano Research journal
- 2018 Reviewer Excellence Award, Society for Laboratory Automation and Screening
(SLAS)
- 2017 Eli and Edythe Broad Innovation Award, University of Southern California
- 2017 Career Development Award, Biomedical Engineering Society (BMES)
- 2017 35 Under 35, American Institute for Chemical Engineers (AIChE)
- 2017 Emerging Investigator, Biomaterials Science journal

2017 Tony B. Academic Travel Award, Society for Laboratory Automation and Screening Annual Conference

2017 Ph.D. Recruitment Program Award, Women in Science and Engineering (WiSE), USC

2016 Young Investigator Session at IEEE, Micro and Nanotechnology in Medicine Conference

2016-21 Gabilan Assistant Professorship, Women in Science and Engineering (WiSE), USC

2016-19 R00 Pathway to Independence Award, National Institutes of Health

2016, 17, 18, 19 Faculty Supplement Award, Women in Science and Engineering (WiSE), USC

2016, 17, 18, 19 Junior Faculty Travel Award, Viterbi School of Engineering, USC

Prior to University of Southern California

2015-16 K99 Pathway to Independence Award, National Institutes of Health

2014-15 Postdoctoral Research Grant, Chicago Biomedical Consortium

2012-14 Postdoctoral Fellowship, American Heart Association

2011-12 Early Career Award, Institute for BioNanotechnology in Medicine-Baxter

2010 Certificate for Management for Scientists and Engineers, Kellogg School of Management, Northwestern University

2010 Semi-finalist, Venture Challenge, Northwestern University

2009, 10 Travel Award, Interdisciplinary Biological Sciences, Northwestern University

2008, 09 Travel Award, The Graduate School, Northwestern University

Research Funding

Current

Established Investigator Award (PI: Madhur (Vanderbilt), Role: Co-I) 04/2019-06/2022
 Title: Defining Novel Inflammatory Pathways in Hypertension and Aortic Dissection
 Funding Agency: American Heart Association
 Total Costs: \$240,000

Predoctoral Award, 19PRE34380998 (PI: Chin, Role: Sponsor) 01/2019-12/2020
 Title: Targeting Atherosclerotic Calcification by Multimodal miR-145 Micelles
 Funding Agency: American Heart Association
 Total Costs: \$53,688

New Innovator Award, DP2 DK121328 (PI) 09/2018-06/2023
 Title: A Revolutionary Approach for Polycystic Kidney Disease: Oral Nanotherapeutics
 Funding Agency: NIDDK, National Institutes of Health
 Total Costs: \$2,433,330

Innovation in Engineering Fellowship (PI: Wang, Role: Sponsor) 08/2018-08/2021
 Title: Oral Delivery of Peptide Amphiphile Micelles for Polycystic Kidney Disease
 Funding Agency: Alfred E. Mann Institute for Biomedical Engineering, USC
 Total Costs: \$99,000

R00 Pathway to Independence Award, R00 HL124279 (PI) 08/2016-08/2020
 Title: Multimodal Peptide Amphiphile Micelles for Atherosclerosis
 Funding Agency: NHLBI, National Institutes of Health
 Total Costs: \$747,000

Completed

- Research on Engineering-Medicine for Cancer Award (PI)** 07/2018-7/2019
Title: Monocyte Chemoattractant Protein-1 Mimetic Micelles for Prostate Cancer Therapy and Immunomodulation
Funding Agency: Ming Hsieh Institute
Total Costs: \$140,000
- Gabilan Assistant Professorship** 08/2016-08/2019
Funding Agency: USC Women in Science and Engineering (WiSE)
Total Costs: \$45,000
- Undergraduate Research Associates Program (PI)** 08/2018-05/2019
Title: Shape Effects of Nanoparticles for Targeting Atherosclerosis
Funding Agency: USC Provost's Office
Total Costs: \$3,000
- Non-Cancer Translational Research Award, PI: Rodriguez, Co-PI: Chung** 03/2017-06/2018
Title: Tissue Regeneration of the Urethra with Adipose Derived Stem Cells and Heparin-Binding Peptide Amphiphile Hydrogels for the Treatment of Stress Urinary Incontinence
Funding Agency: L.K. Whittier Foundation
Total Costs: \$50,000
- Powell Research Award (PI)** 2017-2018
Equipment Fund
Funding Agency: Charles Lee Powell Foundation
Total Costs: \$100,610
- Broad Innovation Award, PI: Chung, Co-PI: Rodriguez** 01/2017-12/2017
Title: Heparin-Binding Peptide Amphiphile Hydrogels for Urethral Regeneration
Funding Agency: Eli and Edythe Broad Foundation
Total Costs: \$120,000
- K99 Pathway to Independence Award, K99 HL124279 (PI)** 05/2014-08/2016
Title: Multimodal Peptide Amphiphile Micelles for Atherosclerosis
Funding Agency: National Institutes of Health
Total Costs: \$179,928
- CBC Postdoctoral Research Grant (PI)** 07/2014-12/2015
Title: Multimodal Peptide Amphiphile Micelles for Atherosclerosis at the Lynn S. Florsheim Magnetic Resonance Imaging and Spectroscopy (MRIS) Laboratory
Funding Agency: Chicago Biomedical Consortium
Total Costs: \$15,000
- AHA Postdoctoral Fellowship, 12POST11730002 (PI)** 07/2012-07/2014
Title: Monocyte-Targeting, Peptide Micelles for the Early Detection of Vulnerable Plaques
Funding Agency: American Heart Association
Total Costs: \$90,772
- IBNAM-Baxter Early Career Development Award in Bioengineering (PI)** 09/2011-07/2012
Title: Bioactive Self-Assembling Coatings for Tendon-to-Bone Healing in Rotator Cuff Injuries
Funding Agency: Institute for BioNanotechnology in Medicine (IBNAM) – Northwestern University, Baxter Corporation
Total Costs: \$110,000

Publications

*Graduate student #Postdoctoral researcher ^Undergraduate student ^^High school student
Corresponding author

46. Wang, J., Li, H., Rivera, D., Hallows, K., **Chung, E.J.** Targeted nanotherapeutics for oral drug delivery in autosomal polycystic kidney disease: in preparation
45. Huang, Y. and **Chung, E.J.** Physicochemical properties of kidney-targeting micelles: in preparation.
44. Trac, N., Shen, K., Kani, K., Gross, M., **Chung, E.J.** Immunomodulatory peptide micelles for prostate cancer: in preparation.
43. Wang, J., Li, H., Rivera, D., Hallows, K., **Chung, E.J.** Chitosan nanocapsules for oral drug delivery in polycystic kidney disease: in preparation.
42. Yeh, J.#, Zhang, R., **Chung, E.J.**, **Rodriguez, L.** Self-assembling hydrogels to stimulate smooth muscle regeneration in urinary incontinence: in preparation.
41. Poon, C., Wang, J., Chin, D.D., Joo, J., Ong, V., Jiang, Z., Cheng, K., Magee, G., Plotkin, A., **Chung, E.J.** Multifunctional Peptide Micelles for Smooth Muscle Cell Targeting and MicroRNA Therapy to Prevent and Reduce Atherosclerosis: to be submitted.
40. Chin, D.D., Poon, C., Wang, J., Trac, N., **Chung, E.J.** Collagenase-cleavable, therapeutic micelles for theranostic applications in atherosclerosis: to be submitted.
39. Trac, N. and **Chung, E.J.** Peptide-based targeting of immunosuppressive cells in cancer: under review
38. Chin, D.D., Magee, G., Plotkin, A., **Chung, E.J.** Hydroxyapatite-binding micelles for the detection of vascular calcification in atherosclerosis. J of Materials Chemistry B: in press. ***Featured in the Emerging Investigators issue***
37. **Chung, E.J.** Nanoparticle strategies for biomedical applications: Reviews from the University of Southern California Viterbi School of Engineering. SLAS Technology (2018): In press. ***Featured in the USC (BME459) Students Nanoparticle Strategies for Biomedical Applications special issue***
36. Ong, V.^, Cao, L.^, Lee, K.^, Mei, V. ^, **Chung, E.J.** Nanomedicine for cystic fibrosis. SLAS Technology (2018): Submitted. ***Featured in the USC Students Nanomedicine special issue***
35. Halbur, C.^, Choudhury, N.^, Chen, M.^, Kim, J.H.^, **Chung, E.J.** siRNA-conjugated nanoparticles to treat ovarian cancer. SLAS Technology (2018): In minor revision. ***Featured in the USC Students Nanomedicine special issue***
34. Kurtanich, T. ^, Roos, N. ^, Wang, G. ^, Yang, J. ^, Wang, A. ^, **Chung, E.J.** Pancreatic cancer gene therapy delivery by nanoparticles. SLAS Technology (2018): In press. ***Featured in the USC Students Nanomedicine special issue***
33. Joo, J.^, Poon, C.#, Yoo, S.P., **Chung, E.J.** Shape effects of peptide amphiphile micelles for targeting monocytes. Molecules: In press (2018).
32. Poon, C.#, Gallo, J., Joo, J. ^, Chang, T. ^, **Banobre-Lopez, M.**, **Chung, E.J.** Hybrid, metal oxide-peptide amphiphile micelles for molecular magnetic resonance imaging of atherosclerosis. Journal of Bionanotechnology: In press (2018).

31. Chin, D.* , Chowdhuri, S.^ , **Chung, E.J.** Calcium-targeting nanoparticles for vascular disease. *Regenerative Engineering and Translational Medicine*: In press (2018).
30. **Chung, E.J.** and Hallows, K.R. First do no harm: Kidney drug targeting to avoid toxicity in ADPKD. *American Journal of Physiology-Renal Physiology*, 3(15): F535-F536 (2018).
29. Wang, J.* , Poon, C.# , Chin, D.* , Milkowski, S.^ , Lu, V.^ , Hallows, K.R., **Chung, E.J.** Design and in vivo characterization of kidney-targeting multimodal micelles toward renal drug delivery. **Back Cover** of *Nano Research*, 11(10): 5584-5595 (2018). **Featured in the Young Innovator in Nanobiotechnology issue**
28. Zavaleta, C., Ho, D., **Chung, E.J.** Theranostic nanoparticles for tracking and monitoring disease state. *SLAS Technology*: In press (2017).
27. Poon, C.# , Chowdhuri, S.^ , Kuo, C.H., Fang, Y., Alenghat, F., Hyatt, D., Kani, K., Gross, M., **Chung, E.J.** Protein mimetic properties of monocyte-targeting peptide amphiphile micelles. *ACS Biomaterials Science and Engineering*, 3(12): 3273-3282 (2017).
26. Poon, C.# , Sarkar, M. ^ , **Chung, E.J.** Monocyte-targeting peptide amphiphile micelles for atherosclerosis. *JoVE*, 129 (2017).
25. Wang, J.* , Masehi-Lano, J.J., **Chung, E.J.** Peptide and antibody ligands for renal targeting: Nanomedicine strategies for kidney disease. *Biomaterials Science*, 5(8): 1450-1459 (2017). **Featured in the Emerging Investigators issue**
24. Khodabandehlou, K.# , Masehi-Lano, J. J., Poon, C.# , Wang, J.* , **Chung, E.J.** Targeting cell adhesion molecules with nanoparticles using in vivo and flow-based in vitro models of atherosclerosis. *Experimental Biology and Medicine*, 242(8): 799-812 (2017).
23. Marciel, A.B., **Chung, E.J.**, Brettmann, B.K. Leon, L. Bulk and nanoscale polypeptide based polyelectrolyte complexes. *Adv. Colloid and Interface Science*, 239: 187-198 (2017).
22. **Chung, E.J.** Targeting and therapeutic peptides in nanomedicine for atherosclerosis. *Experimental Biology and Medicine*, 241(9): 891-898 (2016).
21. Yoo, S. P., Pineda, F., Barrett, J.C., Poon, C.# , Tirrell, M., **Chung, E.J.** Gadolinium-functionalized peptide amphiphile micelles for multimodal imaging of atherosclerotic lesions. *ACS Omega*, 1(5): 996-1003 (2016).
20. **Chung, E.J.**, Tirrell, M. Recent advances in targeted, self-assembling nanoparticles to address vascular damage due to atherosclerosis. **Cover** of *Advanced Healthcare Materials*, 4(16):2408-2422 (2015).

Prior to University of Southern California

19. **Chung, E.J.**, Sugimoto, M., Koh, J., Ameer, G.A. A biodegradable tri-component graft for anterior cruciate ligament reconstruction. **Cover** of *J Tissue Engineering and Regenerative Medicine*, 11(3): 704-712 (2017).
18. Acar, H., Srivastava, S., **Chung, E.J.**, Schnorenberg, M.R., Barrett, J.C., LaBelle, J.L., Tirrell, M. Self-assembling peptide-based building blocks in medical applications. *Advanced Drug Delivery Reviews*, 110-111: 65-79 (2016).
17. Black, K., Lin, B., Wonder, E., Desai, S., **Chung, E.J.**, Ulery, B., Katari, R., Tirrell, M.V. Biocompatibility and optimization of a peptide amphiphile hydrogel for peripheral nerve tissue regeneration. *Tissue Engineering* 21(7-8): 1333-1342 (2015).

16. **Chung, E.J.**, Mlinar, L.B., Sugimoto, M.J., Nord, K., Roman, B.B., Tirrell, M.V. In vivo biodistribution and clearance of peptide amphiphile micelles. *Nanomedicine* 11(2): 479-487 (2015).
15. **Chung, E.J.**, Mlinar, L.B., Nord, K., Sugimoto, M., Wonder, E., Alenghat, F., Fang, Y., Tirrell, M.V. Monocyte-targeting supramolecular micellar assemblies: A molecular diagnostic tool for atherosclerosis. **Inside Cover** of *Advanced Healthcare Materials* 4(3): 323-475 (2015).
14. **Chung, E.J.**, Pineda, F., Karczmar, G., Lee, S.K., Tirrell, M. Fibrin-targeting, peptide amphiphile micelles as contrast agents for molecular MRI. *Journal of Cell Science and Therapy* 5(5): 1000181 (2014).
13. Kuo, C-H., Leon, L.F., **Chung, E.J.**, Sontag, T.J., Reardon, C.A., Getz, G.S., Tirrell, M., Fang, Y. Inhibition of atherosclerosis-promoting microRNAs via targeted polyelectrolyte complex micelles. **Inside Cover** of *Journal of Materials Chemistry B* 2(46): 8142-8153 (2014).
12. Mlinar, L.B., **Chung, E.J.**, Wonder, E., Tirrell, M. Active targeting of early and mid-stage atherosclerotic plaques using self-assembled peptide amphiphile micelles. *Biomaterials* 35(30): 8678-86 (2014).
11. **Chung, E. J.**, Cheng, Y., Morshed, R., Nord, K., Han, Y., Wegscheid, M., Auffinger, B., Wainwright, D.A., Lesniak, M.S., Tirrell, M.V. Peptide amphiphile micelles for targeting glioblastomas. *Biomaterials* 35(4): 1249-1256 (2014).
10. Chien, K.B., **Chung, E.J.**, and Shah, R.N. Investigation of soy protein hydrogels for biomedical applications: Materials characterization, drug release, and biocompatibility. *Journal of Biomaterials Applications* 28(7): 1085-1096 (2014).
9. **E.J. Chung**, K.B. Chien, B.A. Aguado, and R.N. Shah. Osteogenic potential of BMP-2-releasing self-assembled membranes, *Tissue Engineering Part A*, 19(23-24), 2664-2673 (2013).
8. **Chung, E.J.**, Jakus, A.E., and Shah, R.N. In situ forming collagen-hyaluronic acid membrane structures: Mechanism of self-assembly and applications in regenerative medicine. *Acta Biomaterialia* 9(2): 5153-61 (2013).
7. **Chung, E.J.**, Sugimoto, M., Koh, J., Ameer, G.A. Low pressure foaming: A novel method for the fabrication of porous scaffolds for tissue engineering. **Cover** of *Tissue Engin. Part C* 18(2): 113-121 (2012).
6. **Chung, E.J.**, Sugimoto, M., Ameer, G.A. The role of hydroxyapatite in citric acid-based nanocomposites: Surface characteristic, degradation, and osteogenicity. *Acta Biomaterialia* 7(11): 4057-4063 (2011).
5. **Chung, E.J.**, Kodali, P., Yang, S., Laskin, W., Koh, J., Ameer, GA. Long-term in vivo response to citric acid-based nanocomposites for orthopaedic tissue engineering. *Journal of Materials Science: Materials in Medicine* 22(9): 2131-2138 (2011).
4. **Chung, E.J.**, Qiu, H.J., Kodali, P., Yang, S., Hwong, J., Koh, J., Ameer, G.A. Early tissue response to citric acid-based micro- and nanocomposites. *J Biomedical Materials Research: Part A* 96A(1): 29-37 (2011).
3. Wang, J., Singh, C., Liu, L., Irwin, R., Chen, S., **Chung, E.J.**, Thompson, R., Brinton, R. Allopregnanolone reverses neurogenic and cognitive deficits in mouse model of Alzheimer's disease. *PNAS* 107(14): 6498-6503 (2010).
2. Serrano, M.C., **Chung, E.J.**, Ameer, G.A. Advances and applications of biodegradable elastomers in regenerative medicine. *Advanced Functional Materials* 20(2): 192-208 (2010).

1. Lee, S.Y., Kim, T.Y., Lee, M.S., Kim, Y.B., **Chung, E.J.**, Lee, J.W. Focal adhesion and actin organization by a cross-talk of TM4SF5 with integrin alpha2 are regulated by serum treatment. *Experimental Cell Research* 312(16): 2983-2999 (2006).

Books and Book Chapters

5. **Chung, E.J.**, Leon, L., Rinaldi, C. (co-Editors) *Nanoparticles for Biomedical Applications: Fundamental Concepts, Biological Interactions, and Clinical Applications*, Elsevier (book, in press).

4. Wang, J., Mellas, M., Tirrell, M., **Chung, E.J.** Chapter 13: Hydrophobically-assembled nanoparticles, *Nanoparticles for Biomedical Applications: Fundamental Concepts, Biological Interactions, and Clinical Applications*, Elsevier (in press).

3. Masehi-Lano, J.J. and **Chung, E.J.** Engineering citric-acid based porous scaffolds for bone regeneration, *Methods in Molecular Biology, Biomaterials for Tissue Engineering: Methods and Protocol* (2018).

2. **Chung, E.J.**, Leon, L., Hunt, K., Tirrell, M. Peptide amphiphile micelles from structure to function, *Handbook of lipid membranes: Molecular, functional, and materials aspects* (2016).

1. **Chung, E.J.**, Shah, N., and Shah, R.N. Chapter 13: Nanomaterials for cartilage regeneration, *Nanomaterials in tissue engineering: Characterization, fabrication and applications* (2013).

Other Publications

16. **Chung, E.J.** Office Hours. "Personalized Medicine" podcast (March 2018).

15. **Chung, E.J.** Viterbi Voices. "Nanomedicine, Tissue Engineering and Biomaterials Research" podcast (Nov. 22, 2017).

14. **Chung, E.J.** Globalgirl Media podcast (July 2017).

13. **Chung, E.J.** NextGen Voices. *Science* 352(6288): online issue (May 20, 2016).

12. **Chung, E. J.** March Scientist of the Month: Sharon Feng. Association of Women in Science, Chicago (2014).

11. **Chung, E.J.** CRIXlabs, Inc. "Nanomedicine" podcast (2013).

10. **Chung, E.J.** NextGen Voices. *Science* 342(6154): online issue (Oct. 4, 2013).

9. **Chung, E.J.** January Scientist of the Month: Christine McCary. Association of Women in Science (AWIS), Chicago (2013).

8. **Chung, E.J.** November Scientist of the Month: Chinonye Nnakwe. AWIS, Chicago (2012).

7. **Chung, E.J.** January Scientist of the Month: Tracy Gluckman. AWIS, Chicago (2012).

6. **Chung, E.J.** and **Ameer, G.A.** Twenty (or more) things you might not know about nanotechnology. Northwestern University, Office for Research, *CenterPiece* 11(1): 3 (2011).

5. **Chung, E.J.** October Scientist of the Month: Ramille N. Shah. AWIS, Chicago (2011).

4. **Chung, E.J.** March Scientist of the Month: Louise Giam. AWIS, Chicago (2011).

3. **Chung, E.J.** November 200 Scientist of the Month: Sacha Patera. AWIS, Chicago (2010).

2. **Chung, E.J.** July Scientist of the Month: Deborah Quock. AWIS, Chicago (2010).

1. **Chung, E.J.** April Scientist of the Month: Guillermo A. Ameer. AWIS, Chicago

Patents

2. Poon, C. and **Chung, E.J.** Multifunctional Peptide Micelles for Smooth Muscle Cell Targeting and MicroRNA Therapy to Prevent and Reduce Atherosclerosis, USC0265PRV, 2019 (Provisional Patent)
1. **Chung, E.J.** Kidney-Targeting Nanoparticles For Renal Drug Delivery, USC0235PRV, 2018 (Provisional Patent)

Invited Presentations

31. University of Texas at Austin, Dept. of Chemical Engineering, Austin, TX, February 25, 2020
30. University of Miami, Dept. of Medicine, Division of Nephrology, Miami, FL, February 21, 2020
29. Peptide-based micelles for nanomedicine. IEEE Nanomedicine, Gwangju, South Korea, November 23, 2019
28. Harnessing the body's barriers for nanomedicine targeting. Hanyang University, Seoul, South Korea, November 21, 2019
27. Kidney-targeting nanoparticles for autosomal dominant polycystic kidney disease: Advances and lessons learned. Korea Joint Biomedical Engineering Workshop, Biomedical Engineering Society, Philadelphia, PA, Oct. 16-19, 2019
26. Keynote for perspective undergraduate parents, USC April 16, 2019
25. Peptide-based nanomedicine for kidney and cardiovascular diseases. Korean government sponsored, Korean physician-scientists symposium. UC Irvine, Los Angeles, CA, June 24, 2019
24. Micelles in bionanotechnology and translation. Micro and Nanotechnologies for Medicine Workshop. UCLA, Los Angeles, CA, July 8-12. 2019
23. Toward theranostic applications using peptide-based nanomedicine. Georgia Tech, Bioengineering Seminar, May 9, 2019
22. Kidney-targeting multimodal micelles toward polycystic kidney disease therapy. ASBME USC BIOMED Research Symposium. Sept. 7, 2018
21. Kidney-targeting peptide amphiphile micelles toward renal drug delivery. ACS National Meeting, Division of Colloid and Surface Chemistry, Understanding Nano-Bio Interactions: Implications for Bio-Imaging, Diagnosis, and Treatment, Boston, MA, August 19-20, 2018
20. Peptide-based nanomedicine for biomedical applications. CHLA/USC Summer Oncology Research Fellowship Program. July 26th, 2018
19. Peptide-based nanoassemblies toward targeted, theranostic applications. UCLA, Dept. of Bioengineering, May 10, 2018
18. Molecular engineering for theranostic applications and regenerative medicine. 3M, St. Paul, MN, May 15, 2018
17. Peptide-metformin nanomedicine for polycystic kidney disease therapy. Mayo Translational Polycystic Disease Center, Mayo Clinic, Rochester, MN, April 6th, 2018
16. Targeting peptides for nanomedicine. Biology and Chemistry of Peptides. Gordon Research Conference, Ventura, CA, February 11-16, 2018

15. Molecular engineering for theranostic applications. University of Southern California, Dept. of Medicine, Division of Nephrology, Kidney Disease Research Team Seminar Series, Dec. 5, 2017
14. Molecular engineering for regenerative medicine theranostic applications. University of Southern California, Dept. of Chemical Engineering, Nov. 30, 2017
13. Toward theranostic peptide amphiphile micelles. 9th International Conference on Materials for Advanced Technologies (ICMAT), Materials Research Society, Singapore, June 19-23, 2017
12. Nanomedicine for atherosclerosis. 3rd Biennial Los Angeles Cardiovascular Symposium. Cedars Sinai, Los Angeles, CA, May 15, 2017
11. Biomaterials-based design for targeting imaging and therapy. USC BRIDGE Faculty Luncheon Seminar Series, May 3, 2017
10. Peptide amphiphile micelles for targeting glioblastoma. Society for Brain Mapping and Therapeutics. Los Angeles, CA, April 18-20, 2017
9. Designer micelles for molecular (thera) diagnostics. Young Investigator Session, Micro and Nanotechnology in Medicine (MNMC), Engineering in Medicine and Biology Society (EMBS), IEEE, Waikoloa, HI, Dec. 12-16, 2016
8. Targeting atherosclerosis using supramolecular micellar assemblies. Nanotechnology in Medicine, Engineering Conferences International, Hernstein, Austria, July 4, 2016
7. Molecular engineering for theranostics. UC Riverside, Dept. of Bioengineering, May 11, 2016
6. Biomaterials design for tissue regeneration and theranostic applications. University of Southern California, Dept. of Stem Cells and Regenerative Medicine, May 10, 2016
5. Self-assembled nanoparticles for medicine. Pint of Science, Prairie Moon, Evanston, IL. May 19, 2015
4. Molecular engineering for regenerative medicine and theranostic applications. Johns Hopkins, Dept. of Materials Science, March 16, 2015
3. Molecular engineering for regenerative medicine and theranostic applications. University of Southern California, Dept. of Biomedical Engineering, Feb. 27, 2015
2. Molecular engineering for regenerative medicine and theranostic applications. Washington University in St. Louis, Dept. of Biomedical Engineering, Feb. 12, 2015
1. Molecular engineering for regenerative medicine and theranostic applications. Case Western Reserve University, Dept. of Chemical and Biomolecular Engineering, Dec. 11, 2014

Contributed Meeting Presentations

(presenting author)

60. *Tripathy, N.[#]* and **Chung, E.J.** Transdermal delivery of kidney-targeting nanoparticles. of a hydroxyapatite targeting peptide micelle nanoparticle for atherosclerosis. Kidney Week, Washington, DC, November 5-10, 2019 (oral)
59. *Huang, Y.** and **Chung, E.J.** Nanoparticles for renal targeting in polycystic kidney disease. Kidney Week, Washington, DC, November 5-10, 2019 (poster)
58. *Chin, D.**, Mel de Fontenay, M.[^], Pltokin, A., Magee, G., **Chung, E.J.** Development of a hydroxyapatite targeting peptide micelle nanoparticle for atherosclerosis. BMES, Pittsburgh, PA, October 16-19, 2019 (oral)

57. Wang, J.* , Hallows, K., **Chung, E.J.** Oral nanoparticle formulation for renal disease. BMES, Pittsburgh, PA, October 16-19, 2019 (oral)
56. **Chung, E.J.**, Rodriguez, R., Zhang, R., Yeh, J. Peptide-based nanohydrogels for urinary incontinence in women, Military Health System Research Symposium, Kissimmee, FL, August 19-22, 2019 (poster)
55. Trac, C.* and **Chung, E.J.** Dual-peptide amphiphile micelles towards targeted cancer immunotherapy. Cancer Nanotechnology Gordon Research Conference, West Dover, VT, June 23-28, 2019 (poster)
54. Chin, D.* and **Chung, E.J.** Development of a peptide micelle nanoparticle to target vascular calcification. Atherosclerosis Gordon Research Conference, Newry, MN, June 16-21, 2019 (poster)
53. **Chung, E.J.** A nanomedicine approach to polycystic kidney disease. NIH High Risk, High Reward Research Symposium. Bethesda, MD, June 5-7, 2019 (poster)
52. Poon, C.#, Wang, J.* , Chin, D.* , Joo, J.^ , Ong, V.^ , Jiang, Z.^ , Cheng, K.^ , Chang, T.^ , **Chung, E.J.** Multifunctional peptide micelles for gene therapy in atherosclerosis. Society for Laboratory Automation and Screening. Washington D.C., February 2-6, 2019 (poster)
51. Milkowski, S. ^ , Wang, J.* , **Chung, E.J.** Design and in vivo characterization of kidney-targeting multimodal micelles for renal drug delivery. BMES, Undergraduate Research and Design I session, Atlanta, GA, Oct. 17-20, 2018 (podium)
50. Wang, J.* and **Chung, E.J.** Kidney-targeting nanoparticles for drug delivery in polycystic kidney disease. BMES, Atlanta, GA, Oct. 17-20. 2018 (poster)
49. Chin, D.* , Chowdhuri, S.^ , **Chung, E.J.** Calcium detection for atherosclerosis using hydroxyapatite-binding micelles. BMES, Atlanta, GA, Oct. 17-20, 2018 (poster)
48. Aruma, J.^ , Yeh, J.#, Zhang, R., **Chung, E.J.**, **Rodriguez, L.** Using HBPA hydrogel to control growth factor release and induce adipose stem cell differentiation in vitro. Biomedical Research Conference for Minority Students (ABRCMS). Indiana, IN, Nov. 14-17, 2018 (poster)
47. Wang, J.* and **Chung, E.J.** Kidney-targeting nanoparticles for drug delivery in polycystic kidney disease. American Society of Nephrology, Kidney Week. San Diego, CA, Oct. 23-28, 2018 (poster)
46. Wang, J.* and **Chung, E.J.** Kidney-targeting multimodal micelles for renal drug delivery. Micro and Nanotechnologies for Medicine: Emerging Frontiers and Applications. Los Angeles, CA, July 16-July 20, 2018 (poster)
45. Wang, J.* , Milkowski, S.^ , Lu, V.^ , Hallows, K., **Chung, E.J.** Kidney-targeting multimodal micelles toward polycystic kidney disease therapy. PKD Connect Conference, Kansas City, MO, June 29-July 1, 2018 (podium)
44. Chowdhuri, S.^ , Chin, D.* , and **Chung, E.J.** Diagnosis of calcium risk in atherosclerosis by peptide amphiphile micelles. Undergraduate Symposium for Scholarly and Creative Work, USC, Los Angeles, CA, April 11, 2018 (poster)
43. Chin, D.* , Chowdhuri, S.^ , and **Chung, E.J.** In vitro detection of hydroxyapatite using peptide amphiphile micelles for atherosclerosis. Grodins Graduate Research Symposium, USC, Los Angeles, CA, April 13, 2018 (poster)
42. Wang, J.* , Poon, C.#, Chin, D.* , Milkowski, S.^ , Vu, L.^ and **Chung, E.J.** Kidney-targeting peptide amphiphile micelles for renal disease. Grodins Graduate Research Symposium, USC, Los Angeles, CA, April 13, 2018 (poster)

41. Poon, C.#, Chowdhuri, S.^, Kuo, C-H., Fang, Y., Alenghat, F.J., Hyatt, D., Kani, K., Gross, M.E., **Chung, E.J.** Protein mimetic and anticancer properties of monocyte-targeting peptide amphiphile micelles. Society for Biomaterials, Atlanta, GA, April 11-14, 2018 (podium)
40. Wang, J.* and **Chung, E.J.** Design and *in vivo* characterization of kidney-targeting peptide amphiphile micelles toward renal drug delivery. Western Epithelial Biology Society, Avila Beach, CA. March 2-4, 2018 (podium)
39. Bharadwaj, P.^, Khodabandhelou, K.#, Luhar, M., and **Chung, E.J.** In vitro vascular model for atherosclerosis. BMES, Phoenix, AZ, October 11-14, 2017 (poster)
38. Sarkar, M.^, Poon, C.#, **Chung, E.J.** Multifunctional peptide micelle for monocyte targeting and gene therapy to reduce atherosclerosis. National Academy of Engineering (NAE) Grand Challenges, July 2017 (poster)
37. Wang, J.* and **Chung, E.J.** Oral delivery of therapeutic peptide amphiphiles for polycystic kidney disease. Grodins Graduate Research Symposium, USC, Los Angeles, CA, April 14, 2017 (poster)
36. Poon, C.#, Sarkar, M.^, **Chung, E.J.** Multifunctional peptide micelle for monocyte targeting and gene therapy to reduce atherosclerosis. Society for Biomaterials, Minneapolis, MN, April 4-8, 2017 (podium)
35. **Chung, E.J.** Targeting stage-specific disease markers using supramolecular micellar assemblies. Society for Laboratory Automation and Screening (SLAS) Conference, Washington, DC, Feb. 4-8, 2017 (poster)
34. Poon, C.#, Park, D.Y., **Chung, E.J.** Designer micelles for molecular diagnostics. Micro and Nanotechnology in Medicine (MNM), Engineering in Medicine and Biology Society (EMBS), IEEE, Waikoloa, HI, Dec. 12-16, 2016 (poster)
33. Yoo, S.P. Tirrell, M., **Chung, E.J.** The design of micelles for molecular diagnostics. AIChE, San Francisco, CA, Nov. 13-18, 2016. (podium)
32. Yoo, S.P., Tirrell, M., **Chung, E.J.** Imaging and targeting efficacy of nanoparticles for atherosclerosis with varying gadolinium chelators. BMES, Minneapolis, MN, Oct 5-8, 2016. (podium)
31. **Chung, E.J.**, Yoo, S.P., Tirrell, M. The design of gadolinium containing peptide amphiphile micelles for molecular MRI. World Biomaterials Congress, Montreal, Canada, May 17-22, 2016. (poster)
30. **Chung, E.J.**, Yoo, S.P., Tirrell, M. Peptide amphiphile micelles as contrast agents for molecular MRI. Materials Research Society, Boston, MA, Nov. 29-Dec. 4, 2015. (podium)
29. **Chung, E.J.**, Mlinar, L.B., Nord, K., Tirrell, M. Peptide amphiphile micelle-mediated molecular imaging of cardiovascular disease. BMES, Tampa, FL. Oct. 7-10, 2015. (poster)
28. Wu, C.Q., Huang, R.T., Leon, L., **Chung, E.J.**, Reardon, C., Tirrell, M., Fang, Y. Modulation of miR92a-PPAP2B signaling axis in athero-susceptible endothelia employing targeting polyelectrolyte complex nanoparticles. American Heart Association Chicago Research Network Symposium, Chicago, IL. Sept. 18, 2015. (podium)
27. Yoo, S.P., **Chung, E.J.**, Castle, C., Tirrell, M. Investigation of micelle shape on monocyte targeting. American Heart Association Chicago Research Network Symposium, Chicago, IL. Sept. 18, 2015. (poster)

- 26. Chung, E.J.**, Mlinar, L.B., Nord, K., Tirrell, M. Theranostic peptide amphiphile micelles for atherosclerosis. K to R01 Meeting, NHLBI, National Institutes of Health, Bethesda, MD. July 28-29, 2015. (poster)
- 25. Chung, E.J.**, Mlinar, L.B., Nord, K., Tirrell, M. Theranostic peptide amphiphile micelles for atherosclerosis. Biomaterials and Tissue Engineering, Gordon Research Conference, Girona, Spain. July 18-24, 2015. (poster)
- 24. Chung, E.J.**, Mlinar, L.B., Nord, K., Tirrell, M. Supramolecular micellar assemblies for molecular targeting of cardiovascular disease and cancer. AIChE, Atlanta, GA. Nov. 16-21, 2014. (podium)
- 23. Chung, E.J.**, Drews, L.B., Nord, K., Tirrell, M. Biomimetic, monocyte-targeting supramolecular micellar assemblies for atherosclerosis theranostics. BMES, San Antonio, TX. Oct. 22-25, 2014. (podium)
- 22. Hyatt, D.**, **Chung, E.J.**, Tirrell, M., Alenghat, F.J. Monocyte and macrophage-directed peptide amphiphile micelles modulate cytoskeletal organization and target atherosclerosis. American Heart Association, Scientific Sessions, Chicago, IL. Nov. 15-19, 2014. (poster)
- 21. Chung, E.J.** and Tirrell, M. Multimodal peptide amphiphile micelles for atherosclerosis. Chicago Biomedical Consortium Tech Day, Chicago, IL. June 16, 2014. (poster)
- 20. Chung, E.J.**, Mlinar, L.B., Nord, K., Sugimoto, M.J., Wonder, E., Zhang, C., Kuo, C.H., Andrade, J., Fang, Y., Huang, L., Alenghat, A.J., Tirrell, M. Peptide amphiphile micelles for the early detection atherosclerotic plaques. Arnsdorf Cardiovascular Research Day, Chicago, IL. April 25, 2014. (poster)
- 19. Chung, E.J.**, Cheng, Y., Morshed, R., Nord, K., Han, Y., Wegscheid, M., Wainwright, D., Lesniak, M.S., Tirrell, M. Fibrin-binding, peptide amphiphile micelles for targeting glioblastoma. Society for Biomaterials, Denver, CO. April 16-19, 2014. (podium)
- 18. Chung, E.J.**, Drews, L.B., Tirrell, M. The design of peptide amphiphile micelles for diagnostic applications in atherosclerosis. AIChE, San Francisco, CA. Nov. 3-8, 2013. (podium)
- 17. Drews, L.B.**, Chung, E.J., Wonder, E., Tirrell, M. Investigation of self-assembled peptide amphiphile micelles for targeting early stage atherosclerotic plaques. AIChE, San Francisco, CA. Nov. 3-8, 2013. (podium)
- 16. Chung, E.J.**, Drews, L.B., Tirrell, M. Peptide amphiphile micelles for early detection of vulnerable atherosclerotic plaques. American Heart Association Chicago Research Network Symposium, Chicago, IL. Sept. 20, 2013. (poster)
- 15. Tirrell, M.**, **Chung, E.J.**, Ulery, B., Leon, L., Kade, M.J. Protein analogous micelles: Versatile, modular nanoparticles. ACS, Indianapolis, IN. Sept. 8-12, 2013. (podium)
- 14. Chung, E.J.**, Drews, L.B., Tirrell, M. The investigation of peptide amphiphile micelles for detection of vulnerable atherosclerotic plaques. American Heart Association Basic Cardiovascular Sciences Scientific Sessions, Las Vegas, NV. July 22-25, 2013. (poster)
- 13. Chung, E.J.**, Drews, L.B., Tirrell, M. Monocyte-targeting, peptide amphiphile micelles for the early detection of plaques in atherosclerosis. Arnsdorf Cardiovascular Research Day, Chicago, IL. May 31, 2013. (poster)
- 12. Chung, E.J.**, Drews, L.B., and Tirrell, M. Monocyte-targeting, peptide micelles for the early detection of plaques in atherosclerosis. Materials Research Society, San Francisco, CA. April 1-5, 2013. (podium)

11. **Drews, L.B., Chung, E.J., Tirrell, M.** Targeting early stage atherosclerotic plaques using multi-component self-assembled peptide amphiphile micelles. Materials Research Society, San Francisco, CA. April 1-5, 2013. (podium)
10. **Chung, E.J. and Shah, R.N.** Self-assembling, collagen-hyaluronic acid membranes. Bioinspired Materials, Gordon Research Conference, Davidson, NC. June 24-29, 2012. (poster)
9. **Chung, E.J.,** Sugimoto, M., Koh, J., and **Ameer, G.A.** Investigation of a tri-component biodegradable scaffold for ACL tissue engineering. Orthopaedic Research Society, Long Beach, CA. Jan. 13-16, 2011. (poster)
8. **Chung, E.J. and Ameer, G.A.** Biomimetic citric acid-based nanocomposites for orthopaedic tissue engineering. International Conference of Composites/Nano Engineering, Anchorage, AK. July 4-10, 2010. (podium)
7. **Chung, E.J. and Ameer, G.A.** Investigation of citric acid-based calcium phosphate nanocomposites as an osteogenic biomaterial. Orthopaedic Research Society, New Orleans, LA. March 6-9, 2010. (poster)
6. **Chung, E.J. and Ameer, G.A.** Orthopaedic nanocomposites based on citric acid and calcium phosphates. Tissue Engineering and Regenerative Medicine International Society (TERMIS) World Congress, Seoul, South Korea. Aug. 31-Sept. 3, 2009. (poster)
5. **Chung, E.J.,** Qiu, H., **Ameer, G.A.** Tissue response to citric acid-based micro-/nanocomposites. Orthopaedic Research Society, Las Vegas, NV. Feb. 22-25, 2009. (poster)
4. **Chung, E.J. and Ameer, G.A.** Biocomposite screws based on citric acid and hydroxyapatite. InNUvention Applied Research Day, Evanston, IL. 2009. (poster)
3. **Chung, E.J.,** Qiu, H., Kodali, P., Koh, J., **Ameer, G.A.** Mechanical property and biocompatibility of poly(diol citrate) micro- and nano-composites for bone tissue engineering. Society of Engineering Sciences, Urbana-Champaign, IL. Oct. 12-15, 2008. (podium)
2. **Chung, E.J.,** Zou, C., and **Gao, Q.** Centrobin, a potential therapeutic for cancer. InNUvention Applied Research Day, Evanston, IL. 2009. (poster)
1. **Chung, E.J. and Wiley, E.** Searching for the role of a class II histone deacetylase in *T. Thermophila*. Chapter Sigma Xi, Claremont, CA. 2005. (poster)

Teaching

Course Developer and Instructor, University of Southern California

Fall 2016, 17, 18, 19 BME 559: Nanomedicine and Drug Delivery

Enrollment: 6-20 Masters and Ph.D. students

Spring 2018

BME 459: Introduction to Nanomedicine and Drug Delivery

Enrollment: 22 undergraduate students

Guest Lecturer

Fall 2015

University of Chicago, MENG 20000: Introduction to Emerging Technologies

Spring 2015

Northwestern University, CHEM_ENG 275-0: Molecular and Cell Biology for Engineers

High School Laboratory Program Developer and Instructor, University of Chicago

Spring 2014

“Collagen Hydrogels for Nerve Regeneration”

Teaching Assistant, Northwestern University

Fall 2010 BIOL SCI 315-0: Advanced Cell Biology
Spring 2010 BIOL SCI 219-0: Cell Biology

Research Supervision

Visiting Scholar

March 2019-20 Jeong-Ho Yun, Associate Professor, Dept. of Periodontology, College of Dentistry, Chonbuk National University, South Korea

Postdoctoral Fellows

Fall 2018- Nirmalya Tripathy
Fall 2017- Jihchao "Stanley" Yeh
Joint postdoc with Larissa Rodriguez, USC School of Medicine, Dept. of Urology
2016-2019 Christopher Poon
Current Affiliation: Scientist at Emergent BioSolutions
2016-2017 Khosrow Khodabandehlou

Ph.D. Students

Summer 2019- Yi Huang, Biomedical Engineering
Fall 2018- Noah Trac, Biomedical Engineering
Passed screening exam June 2019
Fall 2017- Deborah Chin, Biomedical Engineering
Passed screening exam June 2018
Fall 2016- Jonathan Wang, Biomedical Engineering
Passed screening exam June 2017, passed candidacy exam June 2019
Fall 2016 Sahak Makryan, Biomedical Engineering (rotation student)
Current Affiliation: PhD student in Stacey Finley's lab

Masters Students

Summer 2019- Xuting Zhang, Translational Biotechnology
2017-2019 Yi Huang, Chemical Engineering
Summer 2017 Lekshmi Pillai, Biomedical Engineering

Undergraduate Researchers

2019- Nick Enrique, Biomedical Engineering
2019- Woori Lee, Biological Sciences
2019- Julia Lee, Chemical Engineering
Spring 2019- Claire Conway, Biomedical Engineering
Summer 2019- Kairui Jiang, Biomedical Engineering
2019 Alexander Tseng, Biomedical Engineering
2018-2019 Margot Melafonte, Biomedical Engineering
2018-2019 Clarence Dureg, Biomedical Engineering
2018-2019 Victor Ong, Biomedical Engineering
Current Affiliation: PhD student at USC Biomedical Engineering
2018-2019 Kelly (Zhangjingyi) Jiang, Biomedical Engineering
Spring 2018 Taedong Ko, Accounting
Current Affiliation: Lotte Chemical
Fall 2017- Kayley Cheng, Biomedical Engineering
Summer 2017- Johan Joo, Biomedical Engineering
Summer 2017 James "Trip" McComas, Biomedical Engineering
Summer 2017 Shivani Gupta, The College of New Jersey, Biomedical Engineering
Current Affiliation: Medical student at Rutgers New Jersey Medical School

2017-2019 Sarah Milkowski, Biomedical Engineering
Current Affiliation: Abbott Vascular

2016-2018 Sampreeti Chowdhuri, Biomedical Engineering

2016-2018 Timothy Chang, Biomedical Engineering
Current Affiliation: Dental student at Columbia University, College of Dentistry

2016-2017 Prajwal Bharadwaj, Biomedical Engineering

2016-2017 Manjima Sarkar, Biomedical Engineering
Current Affiliation: Master's student at the University of Oxford

High School Students

Summer 2019 Elisa Kim

Summer 2019 Michelle Arrendondo

Summer 2019 Joelle De Jesus

Summer 2019 Kristofer Thomaso

Summer 2019 Daniela Sotela

Summer 2019 Jiwoo You

2019- Jaya Hamkins

Summer 2018 Iris Hsu
Current Affiliation: undergrad at UC Berkeley Bioengineering

Summer 2018 Evan Kowal

2017-2018 Vivian Lu
Current Affiliation: undergrad at the University of Chicago

Teachers

Summer 2017 Riann Williams, 32nd Street School, 6th grade science teacher

Service to Professional Organizations

Grant Review Panel (Ad Hoc)

2017 National Science Foundation (NSF), Biological and Environmental Interactions of Nanoscale Interactions Study Section

2017 National Institutes of Health, Nanotechnology Study Section (NANO)

2017 Israel Science Foundation (ISF)

2016, 17, 18 American Heart Association (AHA), Bioengineering Study Section

Associate Editor

2019-Present Bioactive Materials

2019-Present Frontiers in Digital Health and Health Technologies

Editorial Boards

2017-Present Society for Laboratory Automation and Screening (SLAS) Technology

2016-Present Experimental Biology and Medicine

2014-2015 Journal of Cell Science and Therapy

Ad Hoc Editor

2017 Proceedings of the National Academy of Sciences (PNAS)

Journal Reviewer

Nanomedicine and Drug Delivery: *Small, Drug Discovery Today, Nanomaterials, International Journal of Nanomedicine, Advanced Therapeutics, Journal of Biomedical Nanotechnology, Nanoscale Horizons, Anti-Cancer Agents in Medicinal Chemistry, Advanced Drug Delivery Reviews, ACS Nano, Advances in Clinical Chemistry*

Materials: *Advanced Healthcare Materials, Tissue Engineering, Soft Matter, Acta Biomaterialia, ACS Biomaterials Science, Molecular Systems Design and Engineering*

Interdisciplinary: *PNAS, Scientific Reports, RSC Advances Life Sciences, Journal of Stem Cell Research & Therapy, Journal of Cell Research & Therapy, Experimental Biology and Medicine, Society for Laboratory Automation and Screening (SLAS) Technology, Journal of Biomedical Applications, Cellular and Molecular Bioengineering, Physical Biology, Science Advances*

Conference Service

Biomedical Engineering Society (BMES)

2019 Session Co-Chair, Targeted/Responsive Drug Delivery Systems, Philadelphia, PA
2018 Session Co-Chair, US-Korea Joint BME Workshop, Atlanta, GA
2017, 18, 19 Abstract Reviewer
2017 Session Co-Chair, Organs-on-Chip Models, Phoenix, AZ
2017 Undergraduate Awards and Poster Reviewer, Phoenix, AZ

American Institute of Chemical Engineers (AIChE)

2018 Planning Committee, Regenerative Engineering Symposium, Pittsburgh, PA
2018 Planning Committee, Women's Initiative Committee (WIC)
2018 Panelist, Women Undergraduate Workshop, Women's Initiative Committee (WIC)
2017, 18, 19 Session Co-Chair, Area Plenary: Leaders in Biomaterials

Society for Biomaterials (SFB)

2018, 19, 20 Session Co-Chair, Supramolecular Nanomaterials for Drug Delivery, Imaging, and Immunoengineering
2017- Abstract Reviewer
2017- Forum Reporter, Drug Delivery Special Interest Group
2017 Session Co-Chair, Supramolecular Biomaterials for Biomedical Applications, Minnesota, MN
2016 Session Co-Chair, New Frontiers Symposium: Nanobiomaterials and Nanotechnology for Implants, Devices, and Theranostics, World Biomaterials Congress, Montreal, Canada

IEEE Nano/Molecular Medicine and Engineering (IEEE-Nanomed)

2019 Session Chair, Electrostatic Interactions and Considerations in Drug Delivery and Biomedical Applications, Gwangju, South Korea
2018 Session Chair, Peptides in Nanomedicine and Biomedical Applications, Waikiki Beach, HI

Pacific Chem

2020 Session Chair, Bioinspired Materials and Architectures for Cell, Tissue, and Regenerative Engineering, Waikiki, HI

American Society for Nephrology (ASN)

2017-18 Advisory Committee, Women in Nephrology

AAAS Annual Meeting

2014 Exhibition Organizer, "The role of model organisms in understanding disease and development," Family Science Days, Chicago, IL,

Society of Engineering Science

2011 Session Co-Chair, Mineralized Tissues and Implants, Evanston, IL

Other Professional Service

University of Chicago

2017 Panelist, STEM Faculty Panel, GRADUCon annual career conference

Association of Women in Science (AWIS)

2014 VP of Communications, Chicago Chapter

2010-2015 Science Writer, Chicago Chapter

White House, Office of Science and Technology Policy (OSTP)

2013-14 Judge, InnoCentive Program, "Identifying revolutionary platform technologies for advancing life sciences research"

NSF, Materials Genome Initiative

2013 Participant, Boston, MA

NIH, Office of Research on Women's Health

2009 Science Writer, Chicago, IL

Service to University of Southern California

University of Southern California

2019 Commencement Marshal

2018 Faculty Speaker, Tuesday Tea, Speaker Series for Residential Students, "A life and career in biomedical engineering"

2018 Reviewer, Zumberge Individual Grant

2018 Faculty Speaker, Research Horizons Symposium, Women in Science and Engineering (WiSE)

2017, 2018 Faculty Mentor, Ph.D. Advisory Committee, Women in Science and Engineering (WiSE)

2017 Faculty Panelist, "Beyond the Ph.D." conference, USC Career Center

2016 Faculty Speaker, STEM Bytes seminar, Women in Science and Engineering (WiSE)

Viterbi School of Engineering

2016, 17, 18 BME Representative, Ph.D. Council

2017, 18 Faculty Panelist, "Applying to a Ph.D. Program", Graduate and Professional Programs office

2017 Faculty Speaker, "Explore USC", Biomedical Engineering breakout session

2016, 17 Faculty Advisor, Maseeh Entrepreneurship Prize Competition and Min Family Engineering Social Entrepreneurship Undergraduate Students Challenge

2016 Faculty Panelist, Mentoring Panel, Pursuing a Career in Academia

2016 Faculty Speaker, Ph.D. Preview Day, Women in Science and Engineering (WiSE)

Department of Biomedical Engineering

2017, 18, 19 Faculty Search Committee

2019 Curriculum Committee

2016, 17, 18 Graduate Admissions Committee

2016, 17, 18, 19 Teaching Lab Design Committee

2016, 17, 18 Co-Organizer, Systems Cellular-Molecular Bioengineering Distinguished Speaker Seminar Series

2017, 18 Ph.D. Graduate Student Screening Exam Committee

2017 Judge, Grodins Graduate Research Symposium

2016 Judge, End-of-Dissertation Award, Alfred Mann Institute for BME

2016 Representative, BME Advisory Board meeting

Candidacy Committees

2019 Jonathan Wang (Biomedical Engineering)
2018 Andrew Petersen (Biomedical Engineering)
Nathan Cho (Biomedical Engineering)
Hsiao-Chuan Liu (Biomedical Engineering)
2017 Nethika Ariyasinghe (Biomedical Engineering)
Bryant Thompson (Biomedical Engineering)
Elizabeth Seigler (Biomedical Engineering)
Alexa Hudnut (Biomedical Engineering)
2016 Shih Jye Tan (Biomedical Engineering)
Samantha McBirney (Biomedical Engineering)

Thesis Defense Committees

2018 Alexa Hudnut (Biomedical Engineering)
Bryant Thompson (Biomedical Engineering)

Outreach

2018- Program Developer and Leader, NanoDays, California Science Center
2017- Program Developer and Leader, "NanoPeek," 32nd Street Middle School
2017 Invited Speaker and Presenter, "Biomaterials for Medicine and Everyday Life,"
Women in STEAM, Mirman School
2016 Lab Tours and Presentation, STEM Spotlight for Compton middle school
students
2016 Representative, "Careers in Biomedical Engineering," Introduce a Girl to
Engineering Day, Argonne National Laboratory
2015, 16 Program Developer and Leader, "Experiences in Molecular Engineering", Parker
High School, University of Chicago
2013, 14 Workshop Developer and Leader, "Biomaterials," Expanding Your Horizons
(middle school girls)
2013 Workshop Developer and Leader, Physics with a Bang!, University of Chicago
2009, 10, 11 Co-Chair, "Distinguished Role Models in Life Sciences", Northwestern University

Professional Memberships

Korean-American Scientists and Engineers Association, 2018-
American Society of Nephrology (ASN), 2017-
Women in Nephrology, 2017-
Society for Laboratory Automation and Screening Conference (SLAS), 2016-
Engineering Medicine and Biology Society (EMBS IEEE), 2016-
Society for Biomaterials (SFB), 2014-
Biomedical Engineering Society (BMES), 2014-
American Institute of Chemical Engineers (AIChE), 2013-
American Heart Association (AHA), 2012-

Chung Lab Member Awards

Postdoctoral Researchers

Christopher Poon

2019 Best Student Poster Award, SLAS Annual Conference, Washington, DC

2019 Tony B. Academic Travel Award, SLAS Annual Conference, Washington, DC
2018 USC Postdoctoral Scholar Training and Travel Award
2018 Tony B. Academic Travel Award, SLAS Annual Conference, San Diego, CA

Graduate Students

Jonathan Wang

2019 Viterbi Undergraduate Research Mentoring Award
2018-21 Alfred E. Mann Innovation in Engineering Doctoral Fellowship
2016-17 USC Provost Ph.D. Fellowship
2017-18 Andrew and Erna Viterbi Fellowship

Deborah Chin

2019 BMES Career Development Award
2019 Grodins Research Symposium, Best Poster Award
2019-20 American Heart Association, Predoctoral Fellowship
2018 NextProf Workshop Scholarship and Attendee, Ann Arbor, MI
2018 Vasculata Travel Scholarship, St. Louis, MO

Undergraduate Students

Jackson Cook

2019 USC Provost Undergraduate Research Fellowship

Kerry (Kairui) Jiang

2019 USC Provost Undergraduate Research Fellowship

Claire Conway

2019- Genomics and Geology Undergraduate Research Experience (GGURE)
2019 USC Bridge Undergraduate Science (BUGS) Program Fellowship
2019 Society for Biomaterials, Drug Delivery Special Interest Group, Student Research Award

Margot Meldefontenay

2019 Best poster (first place), Undergraduate Symposium for Scholarly and Creative Work

Kelly (Zhangjingyi) Jiang

2018 USC Bridge Undergraduate Science (BUGS) Program Fellowship
2018 Society for Biomaterials, Drug Delivery Special Interest Group, Student Research Award

Sarah Milkowski

2019 Alfred E. Mann Institute Undergraduate Award for Outstanding Research in Biomedical Engineering
2018- Genomics and Geology Undergraduate Research Experience (GGURE)
2017 USC Women in Science and Engineering (WiSE) Undergraduate Research Experience Fellowship

Johan Joo

2019 Best poster (first place), Undergraduate Symposium for Scholarly and Creative Work
2017, 18- Genomics and Geology Undergraduate Research Experience (GGURE)

Sampreeti Chowdhuri

2017, 18 USC Women in Science and Engineering (WiSE) Undergraduate Research Experience Fellowship
2017, 18 USC Provost Undergraduate Research Fellowship

Timothy Chang

2017 Genomics and Geology Undergraduate Research Experience (GGURE)
2017 USC Provost Undergraduate Research Fellowship

Prajwal Bharadwaj

2017 Genomics and Geology Undergraduate Research Experience (GGURE)

Chung Lab Press

Awards

October 2nd, 2018—NIH New Innovator Award

<https://directorsblog.nih.gov/2019/01/31/building-nanoparticles-for-kidney-disease/>
https://www.nih.gov/news-events/news-releases/2018-nih-directors-awards-high-risk-high-reward-research-program-announced?utm_source=dlvr.it&utm_medium=twitter
https://commonfund.nih.gov/newinnovator/AwardRecipients?utm_source=twitter.com&utm_medium=social&utm_campaign=nihhighrisk
<https://viterbischool.usc.edu/news/2018/10/eun-ji-chung-awarded-nih-new-innovator-award/>
<https://news.usc.edu/149828/usc-eun-ji-chung-andy-mcmahon-receive-prestigious-nih-grants/>

April 19th, 2018—USC Mentoring Award, Undergraduate Students

<https://bme.usc.edu/2018/04/eun-ji-chung-receives-2018-usc-mentoring-award/>

August 7th, 2017—American Institute for Chemical Engineers (AIChE) 35 Under 35

<https://www.aiche.org/resources/publications/cep/2017/august/aiche-r-35-under-35>
https://www.aiche.org/chenected/2017/07/aiche-35-under-35-bioengineering?utm_campaign=coschedule&utm_source=twitter&utm_medium=ChEnected&utm_content=AIChE%2035%20Under%2035:%20Bioengineering
<http://www.scrippscollege.edu/news/releases/alumnae/eun-ji-chung-06-named-35-under-35-in-bioengineering>
<https://viterbischool.usc.edu/news/2017/08/eun-ji-chung-receives-2017-aiche-35-35-award/>

July 19th, 2017—Emerging Investigator in Biomaterials Science

<http://pubs.rsc.org/en/content/articlehtml/2017/bm/c7bm90033c?page=search>

Research

October 2018 –Biomaterials for smooth muscle cell regeneration in urinary incontinence, USC Viterbi Magazine

<https://magazine.viterbi.usc.edu/fall-2018/features/how-uscs-michelson-center-is-like-a-hollywood-buddy-movie/>

Fall 2018—Kidney-targeting nanoparticles, USC

<https://news.usc.edu/148242/nanoparticle-targets-kidney-disease-for-drug-delivery/>
<https://viterbischool.usc.edu/news/2018/08/this-tiny-particle-might-change-millions-of-lives/>

2017—Gyros Technologies research highlight

https://cdn2.hubspot.net/hubfs/378579/1-PTI/emailers/Review%20Article/Micelles%20selectively%20target%20atherosclerosis%20plaques%20through%20peptide-based%20targeting.pdf?utm_campaign=Peptides&utm_medium=email&hsenc=p2ANqtz-70FPcMynmJpFch4WxuU5SwdYpn1_wUg2G9GBBLJxWVe1twkhZlpU0ReJXZ13-gl2cdgQYCTHYFwsTy_HABr4k9I5KQ&hsmi=56807093&utm_content=56807282&utm_source=hs_email&hsCtaTracking=64ab994d-f16e-497e-b5c0-1c493d03ddb%7C6838ded4-e537-412f-a1da-6e2a0f3ac09e

September 19th, 2017—Undergraduates present at BMES

<https://viterbischool.usc.edu/news/2017/09/perseverance-pays-off/>

February 1, 2017—Broad Innovation Award, USC

<https://viterbischool.usc.edu/news/2017/02/living-biomaterial-world/>

<http://news.usc.edu/115948/viterbi-researcher-work-seeks-to-help-those-who-really-have-to-go/>

Outreach

October 19, 2018—Summer High School Intensive in Next-Generation Engineering (SHINE), USC

<https://viterbipk12.usc.edu/2018/10/seeing-chemistry-solve-real-world-problems-inspires-high-school-students/>

October 2, 2017—NanoPeek, USC

<https://viterbischool.usc.edu/news/2017/10/peeking-science-world/>

May 25, 2017—NanoPeek, USC

<https://viterbipk12.usc.edu/2017/05/usc-viterbi-professors-partner-with-k-12-schools-throughout-the-southland/>

March 15, 2017—Women in STEAM 2017, Mirman School

<https://mirman.org/news-resources/newsroom/women-steam-2017-resounding-success>

October 28, 2016—STEM Spotlight, USC

<https://viterbi.usc.edu/news/news/2016/viterbi-vast-hosts.htm>

<http://comptonherald.com/students-dabble-biomedical-engineering-usc/>

Lab Member Awards

March 6, 2019—Christopher Poon, Society for Laboratory Automation and Screening (SLAS) Conference, Best Student Poster Award

<https://bme.usc.edu/2019/03/christopher-poon-wins-best-paper-at-slas-annual-conference/>

November 14, 2018—Deborah Chin, American Heart Association Predoctoral Fellowship

<https://bme.usc.edu/2018/11/deborah-chin-awarded-american-heart-association-predoctoral-fellowship/>