

EDUCATION

David Geffen School of Medicine at UCLA

M.D. Anticipated, June 2027

August 2022–Present

[Los Angeles, CA](#)

Cornell University

Master of Engineering, Biomedical Engineering

August 2019–May 2020

[Ithaca, NY](#)

Cornell University

Bachelor of Science, Biological Engineering (Chemical Engineering Minor), *Sigma Xi*

August 2016–December 2019

[Ithaca, NY](#)

SIGNIFICANT RESEARCH EXPERIENCE

Lee Laboratory – University of California, Los Angeles: Division of Plastic and Reconstructive Surgery

Research Fellow under [Dr. Justine C. Lee, MD, PhD](#)

August 2022–Present

[Los Angeles, CA](#)

- Conduct research at the intersection of plastic and reconstructive surgery, craniofacial regeneration, biomaterials, and stem cell-directed tissue engineering.
- Investigate how scaffold microarchitecture, mechanical stiffness, and biochemical gradients influence stem cell fate, differentiation, and regenerative outcomes.
- Develop 3D/4D spatial computational imaging and predictive analytic frameworks to track biomaterial-mediated bone regeneration.
- Lead and support clinical projects in aesthetic and reconstructive facial surgery involving facial soft-tissue depth, fat compartment anatomy, imaging-based modeling, sex-specific facial metrics, patient education, and socioeconomic outcome disparities.

Lin Laboratory – Harvard University, Beth Israel Deaconess Medical Center: Plastic Surgery

Research Assistant (Remote) under [Dr. Samuel J. Lin, MD](#)

February 2025–Present

[Boston, MA](#)

- Contribute to manuscripts, systematic reviews, and textbook chapters in aesthetic and reconstructive plastic surgery.
- Support scholarship spanning facial surgery, 3D bioprinting, peripheral nerve regeneration, bone regeneration, and translational biomaterials.
- Assist with academic projects focused on emerging reconstructive technologies and regenerative surgical innovation.

Annabi Laboratory – University of California, Los Angeles: Department of Chemical Engineering

Lab member under [Dr. Nasim Annabi, PhD](#)

August 2022–January 2024

[Los Angeles, CA](#)

- Supported development of engineered biomaterial constructs for translational clinical applications.
- Helped fabricate a high-strength hemostatic patch designed for adhesion to hydrated tissue surfaces, with relevance to wound closure and operative care.
- Contributed to projects including polymeric micelles for drug delivery and 3D urethral tissue bioprinting.

Accilli Laboratory – Columbia University Irving Medical Center: Diabetes Center

Research Assistant under [Dr. Domenico Accilli, MD](#)

September 2021–May 2022

[Manhattan, NY](#)

- Investigated pathogenesis of diabetes and mechanisms of pancreatic beta-cell dysfunction.
- Engineered a custom FOXO1-knockout beta-cell line as a platform for drug-target screening.
- Contributed to studies identifying small molecules capable of reversing beta-cell dedifferentiation.

Ku Laboratory – University of California, San Francisco: Diabetes Center

Research Assistant under [Dr. Gregory Ku, MD, PhD](#)

May 2019–August 2019

July 2020–August 2021

[San Francisco, CA](#)

- Studied pancreatic beta-cell circuitry, insulin regulation, and diabetes-related signaling pathways.
- Investigated novel regulators of the insulin promoter and candidate therapeutic targets.
- Developed a selective insulin-secretion detection system for virally infected beta cells.
- Engineered a live-cell biosensor for real-time monitoring of chloride and pH dynamics in the endoplasmic reticulum.

Ma Laboratory – Cornell University, Department of Biological and Environmental Engineering

Research Assistant under [Dr. Minglin Ma, PhD](#)

January 2017–July 2020

[Ithaca, NY](#)

- Studied biomaterial and cell-encapsulation strategies for treatment of diabetes.
- Manufactured and optimized nanofiber-based devices housing insulin-secreting cells to reduce immune response and cell death while improving glucose-correcting efficiency.
- Engineered biomaterials with enhanced adhesivity, glucose responsiveness, and antiviral properties.
- Used COMSOL / FEA to model mass transport across devices and optimize design parameters.

March Laboratory – Cornell University, Department of Biological and Environmental Engineering

Research Assistant under [Dr. John March, PhD](#)

January 2019–Dec 2019

[Ithaca, NY](#)

- Helped design and build a robotic peristaltic model to recreate motile conditions for synthetic intestinal tissue engineering and prototype an implantable intestine.
- Awarded funding from the Cornell Alumni Association to 3D print the device.
- Analyzed intraoperative intestinal motion in MATLAB and translated contraction dynamics into a programmable model.
- Programmed an Arduino-controlled system integrating air pumps and solenoid valves to reproduce physiologic contraction patterns.

PROFESSIONAL EXPERIENCE

Scientific Visualization, Surgical Illustration, and Computational Design

Develop 2D and 3D visual schematics that translate complex concepts in plastic surgery, regenerative medicine, biomaterials, and medical technology into clear, publication-ready graphics. Create patient-education visuals, operative schematics, surgical simulation assets, and preoperative planning graphics to support procedural communication and surgical understanding. Produce visual content for academic research groups, clinical teams, and early-stage biotechnology startups in support of manuscripts, grant applications, device development, and translational concept design. Tools include Blender, Autodesk Maya, Adobe Dimension, and Adobe Illustrator. Portfolio available via personal website.

October 2018–Present
[Los Angeles, CA](#)

Plastic Surgery Research Council – Tech and Communications Committee

Help lead multi-platform digital communications for a national plastic surgery research organization, developing reusable branded content and engagement strategies around conference programming. Supported coordination of medical student-physician Instagram Live interviews in advance of the 2025/2026 meetings and created 3D video visualizations for conference topics. Also mentor junior volunteers and contribute to visual storytelling at the intersection of plastic surgery, research, and technology.

September 2024–Present
[Los Angeles, CA](#)

California Society of Plastic Surgeons – UCLA Student Representative

Selected to represent UCLA medical students within the California Society of Plastic Surgeons and serve as a liaison among students, residents, and faculty statewide. Coordinate student participation in educational programming, mentorship initiatives, and annual meetings, and advocate for medical student engagement, trainee development, and broader participation in statewide plastic surgery initiatives.

September 2025–Present
[Los Angeles, CA](#)

Encellin – Innovation and Design Internship

Worked directly with leadership at a biotechnology startup developing a thin-film encapsulation device for cell therapy, with applications including type 1 diabetes. Supported early IND-related preparation, investor presentations, collaboration proposals, white papers, and competitive landscape research. Also built company-facing communication materials, including the website and external presentation assets, and developed computational models of the device to support design refinement and translational development.

August 2018–August 2020
[San Francisco, CA](#)

ABSTRACTS & PRESENTATIONS (Non-Published)

- 2026 75. **Shariati K**, Cronin BJ, Garrard RK, Da Lio AL, Roostaeian J.
[Prevalence of Minimally Invasive Facial Treatments in Patients Seeking Rhytidectomy](#)
(California Society of Plastic Surgeons; Forthcoming)
- 2025 74. Cronin BJ, **Shariati K**, Garrard RK, Da Lio AL, Roostaeian J.
[Incidence of Minimally Invasive Facial Treatments in Patients Undergoing Rhytidectomy](#)
(American Society of Plastic Surgeons; Plastic Surgery The Meeting; 10/9-10/12/2025)
73. Argame AA, Deng I, **Shariati K**, Francis S.
[Revisiting the Ousterhout Forehead Feminization Classification System: CT Characterization of Frontal Sinus Anatomy and Surgical Decision-Making](#)
(International Society of Craniofacial Surgery; Shanghai, China; 10/27-10/30/2025)
72. Hall AE, **Shariati K**, Cascavita C, Lee JC.
[The Role of Psychotherapy Prior to Facial Gender-Affirming Surgery on Patient Outcomes.](#)
(American Society of Plastic Surgeons; Plastic Surgery The Meeting; 10/9-10/12/2025)
71. Hall AE, Perotta AT, Argame AA, **Shariati K**, Patel AK, Lee JC.
[Effectiveness of Multimedia Preoperative Surgical Patient Education Interventions on Surgical Outcomes: A Systematic Review and Meta-Analysis.](#)
(American Society of Plastic Surgeons; Plastic Surgery The Meeting; 10/9-10/12/2025)
70. Argame AA, **Shariati K**, Hall AE, Cascavita C, Lee JC.
[Association of Socioeconomic Deprivation Indices and Psychosocial Outcomes Following Facial Feminization Surgery](#)
(American Society of Plastic Surgeons; Plastic Surgery The Meeting; 10/9-10/12/2025)
69. Argame AA, Deng I, **Shariati K**, Francis S.
[OusterhIN or OusterhOUT: does the Ousterhout forehead feminization classification system stand the test of time?](#)
(American Society of Plastic Surgeons; Plastic Surgery The Meeting; 10/9-10/12/2025)
68. **Shariati K**, Argame AA, Hall AE, Cascavita C, Patel A, Lee JC.
[Navigating the Facial Landscape: Topographic Mapping of Soft Tissue Thickness and Fat Compartments](#)
(American Society of Plastic Surgeons; Plastic Surgery The Meeting; 10/9-10/12/2025)
67. **Shariati K**, Cronin BJ, Roostaeian J.
[Assessing Trends in Minimally Invasive and Surgical Facial Rejuvenation Treatments](#)
(California Society of Plastic Surgeons. Carlsbad, CA. 5/16-5/18/2025)
66. Huang KX, **Shariati K**, Taki Labib MA, Taylor JM, Nguyen NH, Hall AE, Cascavita CT, Lee JC.
[Addressing Facial Asymmetry and Craniofacial Microsomia for Gender-Affirming Reconstruction](#)
(Plastic Surgery Research Council. St. Louis, MO. 5/1-5/4, 2025)
- 2024 65. Huang KX, **Shariati K**, Taki Labib MA, Taylor JM, Nguyen N, Cronin BJ, Khetpal S, Lee JC.
[Analyzing Facial Asymmetry and Craniofacial Microsomia: Approaches in Gender-Affirming Surgery](#)

(Academic Surgical Congress. Las Vegas, NV. 2/11-2/13/2025)

64. Nguyen N, Chin MG, Huang KX, **Shariati K**, Taylor JM, Panchura J, Gishen K, Lee JC, Wilson LF.
[Association of Sphincter Pharyngoplasty and Long-term Maxillary Hypoplasia in Patients with Cleft Palate.](#)
(American Society of Plastic Surgeons; Plastic Surgery The Meeting; 9/26-9/29/2024)
63. Fadich S, Nguyen N, Miller M, **Shariati K**, Kaur M, Pfaff M, Ranganathan K, Satterwhite T, Berli J, Lee JC.
[Protocol for the development of a Core Outcome Set for Facial Gender-Affirming Surgery \(fGAS-COS\)](#)
(28th Scientific Symposium of the World Professional Association of Transgender Health, Lisbon, Portugal. 9/25-9/30, 2024)
62. Nguyen N, Taylor JM, Huang KX, **Shariati K**, Chevalier J, Miller M, Lee JC.
[Ethnic Variation in Lower Face Anthropometry on Facial Computed Tomography Scans for Patients Seeking Facial Feminization Surgery.](#)
(California Society of Plastic Surgeons. Carlsbad, CA. 5/10-5/12/2024)
- 2023 61. Huang KX, Taki Labib MA, **Shariati K**, Taylor JM, Nguyen N, Cronin BJ, Khetpal S, Lee JC.
[Facial Feminization Surgery for Patients with Craniofacial Microsomia](#)
(California Society of Plastic Surgeons. Carlsbad, CA. 5/10-5/12/2024)
60. Cronin BJ, Huang KX, Fadich S, Taylor J, **Shariati K**, Sample H, Howard M, Lee JC.
[Evaluating the impact of race on forehead morphology and frontal sinus characteristics regarding frontal cranioplasty for facial feminization surgery: An analysis of 161 patients](#)
(American Society of Plastic Surgeons. Austin, TX. 10/26-10/29/2023)
59. Moghadam S, Roca Y, LaGuardia JS, Taylor J, Sample HA, **Shariati K**, Huang KX, Chin MG, Bedar M, Fadich SK, Lee JC.
[Increased Facial Fat Pad Volume Observed in Transfeminine Patients on Greater Length of Hormone Therapy.](#)
(Abstract Presentations: On-Demand at Plastic Surgery The Meeting at Austin, Texas - October 2023)
58. Cronin BJ, Huang KX, Fadich S, Taylor J, **Shariati K**, Sample H, Howard M, Lee JC.
[Evaluating the impact of race on forehead morphology and frontal sinus characteristics regarding frontal cranioplasty for facial feminization surgery: An analysis of 161 patients](#)
(73rd Annual Meeting of the California Society of Plastic Surgeons. 05/26-05/28/2023)

PUBLICATIONS

- In Press 57. [Percutaneous Biliary Interventions and Transhepatic Cholangioscopy: A Guide for Beginners](#)
(*Digestive Disease Interventions – In Press*)
Abinaya Ramakrishnan, Griffin McNamara, Dustin Roberts, Christian Nguyen, **Kaavian Shariati**, Ravi Srinivasa, Sipan Mathesovian
- 2026 56. [Compartment-informed biomaterials for facial adipose restoration](#)
(*Academia Materials Science*)
Kaavian Shariati, Emily Zucker, Puneet Mann, Robert K. Garrard, Rithik Jain, Archi K. Patel, Jun Yun, Eleanor Frost, Catherine Cascavita, Lee Weber, Younghan Kang, Xiaoyan Ren, Justine C. Lee*
55. [Four-dimensional Time-Resolved Analysis of Skeletal Regenerative Material Performance In Vivo](#)
(*PSRC 2026*)
Kaavian Shariati, Meiwand Bedar, Xiaoyan Ren, Younghan Kang, Wei Chen, Catherine Cascavita, Archi K. Patel, Faisal Madanat, Shahrzad Moghadam, Kelly Huang, Mikayla Tamboline, Shili Xu, Brendan A.C. Harley, Justine C. Lee.
54. [Impact Of The Prehabilitation For Facial Feminization Surgery \(PREFACE\) Program On Postoperative Pain](#)
(*PSRC 2026*)
Anne E. Hall, Alexander A. Argame, Archi K. Patel, Rachael J. Hargrove, Nghiem H. Nguyen, Sumun Khetpal, Catherine T. Cascavita, **Kaavian Shariati**, Chi-Hong Tseng, Marco A. Hidalgo, Justine C. Lee
53. [Socioeconomic Indices And Timing Of Alveolar Bone Grafting In Patients With Cleft Lip And Palate](#)
(*PSRC 2026*)
Alexander Argame, **Kaavian Shariati**, Amanda Perrotta, Archi Patel, Libby Wilson, & Justine C. Lee.
52. [Impact Of Socioeconomic Status On Psychosocial Outcomes In Facial Feminization Surgery](#)
(*PSRC 2026*)
Alexander Argame, **Kaavian Shariati**, Anne Hall, Catherine T. Cascavita, Sumun Khetpal, Justine C. Lee.
51. [Predicting Postoperative Outcomes Of Facial Feminization Surgery Using Artificial Intelligence Models](#)
(*PSRC 2026*)
Archi Patel, Catherine Cascavita, Anne Hall, Kelly Huang, **Kaavian Shariati**, Alex Argame, Justine C. Lee
50. [Silk-Derived 3D-Bioprinted Scaffolds for Neural Repair and Nerve Regeneration: A Comprehensive Review](#)
(*MDPI – Life*)
Alynah J. Adams, Sanjana Challa, Cynthia Yan, Isabella Beltz, Alexa Kambol, **Kaavian Shariati**, Jocelyn Hunt, Charlotte Thomas, Dorian I. Schonebaum, Jose A. Foppiani, Umar Choudry, Samuel J. Lin
49. [Impact of Socioeconomic Indices on Completion of Cleft Lip and Palate Care](#)
(*Plastic and Reconstructive Surgery*)
Alexander Argame, Amanda Perrotta, **Kaavian Shariati**, Archi K. Patel, Sumun Khetpal, Libby F. Wilson, Justine C. Lee
48. [Facial Artery Pseudoaneurysms: Insights Into A Rare Occurrence — A Systematic Review Of 39 Cases](#)
(*The Journal of Craniofacial Surgery*)

Alynah J. Adams, Sanjana Challa, **Kaavian Shariati**, Jocelyn Hunt, Charlotte Thomas, Fatima Arif, Samuel J. Lin.

47. [Exercise-based and Nutrition-based Prehabilitation Programs in Surgery: A Systematic Review and Meta-Analysis](#)
(*Journal of the American College of Surgeons*)
Catherine T. Cascavita, Anne E. Hall, **Kaavian Shariati**, Alex A. Argame, Archi K. Patel, Nghiem H. Nguyen, Wei Chen, Youngnam Kang, Xiaoyan Ren, Justine C. Lee
46. [Generative AI in Surgical Care: A Systematic Review of Large Language Model Performance Metrics in Patient Education](#)
(*Journal of Artificial Intelligence for Medical Sciences*)
Anne E. Hall, Archi K. Patel, **Kaavian Shariati**, Amanda T. Perrotta, Alexander A. Argame, Chi-Hong Tseng, Marco A. Hidalgo, Justine C. Lee
45. [What I Do Now and What I Have Eliminated from My Facelifts: Proceedings of the 2025 ASPS Spring Meeting](#)
(*Plastic and Reconstructive Surgery*)
Charlotte Thomas, Amanda R. Sergesketter, **Kaavian Shariati**, Foad Nahai, James Zins, Richard Warren, Lorne Rosenfield
44. [Three-Dimensional Printing of the Epineurium for Peripheral Nerve Repair: Novel Scaffolds for Nerve Conduits](#)
(*Biomimetics*)
Alynah J. Adams, Iulianna C. Taritsa, **Kaavian Shariati**, Aaron I. Dadzie, Jose A. Foppiani, Maria Jose Escobar-Domingo, Daniela Lee, Angelica Hernandez-Alvarez, Kirsten Schuster, Helen Xun, Samuel J. Lin
43. [Defining Outcomes in Facial Gender-Affirming Surgery: A Systematic Review to Inform Core Outcome Set Development](#)
(*Journal of Aesthetic Medicine*)
Meghan N. Miller, Derrick Lin, Samantha Rabinovich, Graysen Airth, Sabrina Rainsbury-Silva, Rebecca Canfield, Sarah Katherine Fadich, **Kaavian Shariati**, James P. Bradley, Justine C. Lee
42. [Assessment of Bone Regeneration in Rabbit Calvarial Defects Treated with Mineralized Collagen-Based Scaffolds Using In Vivo MicroCT and 3D Rendering](#)
(*Current Protocols*)
Youngnam Kang, **Kaavian Shariati**, Catherine T. Cascavita, Xiaoyan Ren, Brendan A. C. Harley, Shili Xu, Justine C. Lee
41. [Beyond Wrinkles: A Systematic Review and Meta-Analysis of Off-Label Aesthetic Uses of Botulinum Neurotoxin.](#)
(*Annals of Plastic Surgery*)
Morvarid Mehdizadeh, **Kaavian Shariati**, Katherine C. Pan, Matthew Trahan, Jacob Olondo Kuba, Maria Jose Escobar-Domingo, Justin J. Cordero, Daniela Lee, Jose A. Foppiani, Samuel J. Lin
40. [Spare Parts: Repurposing Tissue in Facial Feminization Surgery](#)
(*Aesthetic Plastic Surgery*)
Sumun Khetpal, Anne E. Hall, **Kaavian Shariati**, Nghiem H. Nguyen, Alex A. Argame, Julissa Molina-Vega, Jake Alford, Abie H. Mendelsohn & Justine C. Lee
39. [Evaluating Mineral Deposition in Bone-Regenerative Collagen-Based Scaffolds Using High-Resolution microCT and 3D Computational Segmentation.](#)
(*Current Protocols*)
Youngnam Kang, **Kaavian Shariati**, Catherine T. Cascavita, Xiaoyan Ren, Brendan A. C. Harley, Shili Xu, Justine C. Lee
- 2025 38. [Artificial Intelligence Chatbots in Surgery: A Systematic Review of Clinical Applications.](#)
(*Journal of Artificial Intelligence for Medical Sciences*)
Anne E. Hall, Amanda T. Perrotta, **Kaavian Shariati**, Archi K. Patel, Justine C. Lee
37. [Aspects and Concepts of What I Preserve in Rhinoplasty: Meeting Proceedings of the 2025 ASPS Spring Meeting](#)
(*Plastic and Reconstructive Surgery*)
Amanda R. Sergesketter, Charlotte Thomas, **Kaavian Shariati**, Alan Matarasso, Bahman Guyuron, Oren Tepper, Robert Gilman, Samuel J. Lin
36. [Analysis of Craniofacial Microsomia and Facial Asymmetry: Approaches in Facial Feminization Surgery.](#)
(*Aesthetic Surgery Journal*)
Kelly X. Huang, Catherine T. Cascavita, **Kaavian Shariati**, Anne E. Hall, Alex A. Argame, Manwel A. Taki Labib, Jeremiah M. Taylor, Nghiem H. Nguyen, Justine C. Lee
35. [Resorbable Poly-\(D, L\)-Lactide Anchorage of Nanoparticulate Mineralized Collagen Materials Maximizes In Vivo Skull Regeneration](#)
Meiwand Bedar, Xiaoyan Ren, Wei Chen, Youngnam Kang, Shahrzad Moghadam, Kelly X. Huang, **Kaavian Shariati**, Brendan AC Harley, Justine C. Lee.
34. [Biomimetic, Suturable, and Extensible Electrospun Scaffolds for Lower Urinary Tract Surgical Reconstruction.](#)
(*Advanced Healthcare Materials*)
Renea M. Sturm, Yadi Huo, Felix Yiu, Yimin Gu, Ronak Afshari, Zijian Zhong, Ruby Jimenez, Rebekah Jung, Aljohn Cabuan, Keshav Shukla, Karen Harrison, Judy Su, George E. Aninwene II, Victoria Lee, Mahsa Ghovvati, **Kaavian Shariati**, Nicholas Jackson, Song Li, Nasim Annabi.
33. [The Sunshine Act Open Payment Database: A 7-Year Analysis of Trends Within Plastic Surgery and Its Subspecialties.](#)
(*Plastic Surgery*)
Justin J. Cordero, Morvarid Mehdizadeh, Noelle Garbaccio, Lacey Foster, Dorian I. Schonebaum, Jade E. Smith, **Kaavian Shariati**, Samuel J. Lin.

32. [Orai1 is Required for Osteogenic Differentiation on Nanoparticulate Mineralized Collagen Glycosaminoglycan Materials.](#)
(*Macromolecular Bioscience*)
Meiwand Bedar, Wei Chen, Xiaoyan Ren, Shahrzad Moghadam, Youngnam Kang, **Kaavian Shariati**, Kelly X. Huang, Grace Rubino, Brendan AC Harley, Justine C. Lee.
31. [125. Addressing Facial Asymmetry and Craniofacial Microsomia For Gender-affirming Reconstruction.](#)
(*Plastic and Reconstructive Surgery Global Open*)
Kelly X. Huang, **Kaavian Shariati**, Manwel A. Taki Labib, Jeremiah M. Taylor, Nghiem H. Nguyen, Anne E. Hall, Catherine T. Cascavita, Justine C. Lee.
30. [The Impact of Psychological Prehabilitation on Surgical Outcomes: A Meta-Analysis and Meta-Regression.](#)
(*Annals of Surgery*)
Anne E. Hall, Nghiem H. Nguyen, Catherine T. Cascavita, **Kaavian Shariati**, Archi K. Patel, Wei Chen, Youngnam Kang, Xiaoyan Ren, Chi-Hong Tseng, Marco A. Hidalgo, Justine C. Lee
29. [Association of Sphincter Pharyngoplasty and Long-term Maxillary Hypoplasia in Patients with Cleft Palate.](#)
(*Plastic and Reconstructive Surgery*)
Nghiem H. Nguyen, Madeline G. Chin, Kelly X. Huang, **Kaavian Shariati**, Jeremiah M. Taylor, Juliana Panchura, Kriya Gishen, Justine C. Lee, Libby F. Wilson
- 2024 28. [Biomaterial Cues for Regulation of Osteoclast Differentiation and Function in Bone Regeneration.](#)
(*Advanced Therapeutics*)
Kaavian Shariati, Meiwand Bedar, Kelly X. Huang, Shahrzad Moghadam, Sarah Mirzaie, Jonnby S. LaGuardia, Wei Chen, Youngnam Kang, Xiaoyan Ren, Justine C. Lee
27. [The Type I+ Forehead in Facial Feminization Surgery.](#)
(*Aesthetic Plastic Surgery*)
Shahrzad Moghadam, **Kaavian Shariati**, Kelly X. Huang, Madeline G. Chin, Jonnby S. LaGuardia, Meiwand Bedar, Sumun Khetpal, Brendan J. Cronin, Justine C. Lee
26. [The Role of Clic-Like Chloride Channel 1 in the Pancreatic Beta Cell.](#)
(*Diabetes*)
Yaohuan Zhang, Nicholas Yiv, **Kaavian Shariati**, Andrew Sanfilippo, Gregory M. Ku
25. [An shRNA screen in primary human beta cells identifies the serotonin 1F receptor as a negative regulator of survival during transplant.](#)
Rebecca A. Lee, Deeksha G. Chopra, Vinh Nguyen, Xi-Ping Huang, Yaohuan Zhang, **Kaavian Shariati**, Nicholas Yiv, Rebecca Schugar, Justin Annes, Bryan Roth, Gregory M. Ku
24. [A Glucose-responsive Cannula for Automated and Electronics-free Insulin Delivery.](#)
(*Advanced Materials*)
Stephanie Fuchs, Julia S. Caserto, Qingsheng Liu, Kecheng Wang, **Kaavian Shariati**, Chase M. Hartquist, Xuanhe Zhao, and Minglin Ma
23. [Ethnic Variation in Lower Face Anthropometry on Facial Computed Tomography Scans for Patients Seeking Facial Feminization Surgery.](#)
(*Journal of Plastic, Reconstructive & Aesthetic Surgery*)
Nghiem H. Nguyen, Jeremiah M. Taylor, Kelly X. Huang, **Kaavian Shariati**, Jose M. Chevalier, Meghan N. Miller, Brendan J. Cronin, and Justine C. Lee.
- 2023 22. [Rational design of polymeric micelles for targeted therapeutic delivery.](#)
(*Nano Today*)
Zheng, Yuting, Yavuz Oz, Yimin Gu, Nadim Ahamad, **Kaavian Shariati**, Jose Chevalier, Diya Kapur, and Nasim Annabi.
21. [Advances in 3D bioprinting for urethral tissue reconstruction.](#)
(*Trends in Biotechnology*)
Daniel Booth, Ronak Afshari, Mahsa Ghovvati, **Kaavian Shariati**, Renea Sturm, Nasim Annabi
20. [Hemostatic patch with ultra-strengthened mechanical properties for efficient adhesion to wet surfaces.](#)
(*Biomaterials*)
Yuting Zheng, **Kaavian Shariati**, Mahsa Ghovvati, Steven Vo, Nolan Origer, Taichiro Imahori, Naoki Kaneko, Nasim Annabi
19. [Convergence of Calcium Channel Regulation and Mechanotransduction in Skeletal Regenerative Biomaterial Design.](#)
(*Advanced Healthcare Materials*)
Jonnby S LaGuardia, **Kaavian Shariati**, Meiwand Bedar, Xiaoyan Ren, Shahrzad Moghadam, Kelly X Huang, Wei Chen, Youngnam Kang, Dean T Yamaguchi, Justine C Lee
18. [SARS-CoV-2 ORF3A interacts with the Clic-like chloride channel-1 \(CLCC1\) and triggers an unfolded protein response.](#)
(*PeerJ*)
Hannah N Gruner, Yaohuan Zhang, **Kaavian Shariati**, Nicholas Yiv, Zicheng Hu, Yuhao Wang, J Fielding Hejtmancik, Michael T McManus, Kevin Tharp, Gregory Ku
17. [Genetic and pharmacologic inhibition of ALDH1A3 as a treatment of \$\beta\$ -cell failure.](#)
(*Nature Communications*)
Jinsook Son, Wen Du, Mark Esposito, **Kaavian Shariati**, Hongxu Ding, Yibin Kang, Domenico Accili
16. [Global honeybee health decline factors and potential conservation techniques.](#)
(*Food Security*)

Yinying Yang, Yuzheng Wu, Hexuan Long, Xuelin Ma, **Kaavian Shariati**, James Webb, Liang Guo, Yang Pan, Minglin Ma, Chao Deng, Peng Cao, Jing Chen

- 2022**
15. [Superfolder Green Fluorescent Protein-Based Biosensor Allows Monitoring of Chloride in the Endoplasmic Reticulum.](#)
(ACS sensors)
Kaavian Shariati, Yaohuan Zhang, Simone Giubbolini, Riccardo Parra, Steven Liang, Austin Edwards, J Fielding Hejtmancik, Gian Michele Ratto, Daniele Arosio, Gregory Ku
 14. [A Safe, Fibrosis-Mitigating, and Scalable Encapsulation Device Supports Long-Term Function of Insulin-Producing Cells.](#)
(Small)
WanJun Liu, James A Flanders, Long-Hai Wang, Qingsheng Liu, Daniel T Bowers, Kai Wang, Alan Chiu, Xi Wang, Alexander U Ernst, **Kaavian Shariati**, Julia S Caserto, Benjamin Parker, Daqian Gao, Mitchell D Plessner, Lars G Grunnet, Claude Rescan, Rodrigo Pimentel Carletto, Louise Winkel, Juan M Melero-Martin, Minglin Ma
 13. [An adhesive and resilient hydrogel for the sealing and treatment of gastric perforation.](#)
(Bioactive Materials)
Jing Chen, Julia S Caserto, Ida Ang, **Kaavian Shariati**, James Webb, Bo Wang, Xi Wang, Nikolaos Bouklas, Minglin Ma
 12. [Sustained Delivery of SARS-CoV-2 RBD Subunit Vaccine using a High Affinity Injectable Hydrogel Scaffold.](#)
(Advanced Healthcare Materials)
Jing Chen, Bo Wang, Julia S Caserto, **Kaavian Shariati**, Peng Cao, Yang Pan, Qixuan Xu, Minglin Ma
- 2021**
11. [Hylozoic by Design: Converging Material and Biological Complexities for Cell-driven Living Materials with 4D Behaviors.](#)
(Advanced Functional Materials)
Kaavian Shariati, Andrea Shin Ling, Stephanie Fuchs, Benjamin Dillenburger, WanJun Liu, Minglin Ma
 10. [Local Immunomodulatory Strategies to Prevent Allo-Rejection in Transplantation of Insulin-Producing Cells.](#)
(Advanced Science)
Xi Wang, Natalie K Brown, Bo Wang, **Kaavian Shariati**, Kai Wang, Stephanie Fuchs, Juan M Melero-Martin, Minglin Ma
 9. [A Broad-Spectrum Antimicrobial and Antiviral Membrane Inactivates SARS-CoV-2 in Minutes.](#)
(Advanced Functional Materials)
Qingsheng Liu, Yidan Zhang, WanJun Liu, Long-Hai Wang, Young W Choi, Megan Fulton, Stephanie Fuchs, **Kaavian Shariati**, Mingyu Qiao, Victorien Bernat, Minglin Ma
 8. [Pollen-inspired enzymatic microparticles to reduce organophosphate toxicity in managed pollinators.](#)
(Nature Food)
Jing Chen, James Webb, **Kaavian Shariati**, Shengbo Guo, Jin-Kim Montclare, Scott McArt, Minglin Ma
- 2020**
7. [Hydrogels in Emerging Technologies for Type 1 Diabetes.](#)
(Chemical Reviews)
Stephanie Fuchs, Alexander U Ernst, Long-Hai Wang, **Kaavian Shariati**, Xi Wang, Qingsheng Liu, Minglin Ma
 6. [Biomaterial Applications in Islet Encapsulation and Transplantation.](#)
(ACS Applied Bio Materials)
Julia S Caserto, Daniel T Bowers, **Kaavian Shariati**, Minglin Ma
 5. [An Adhesive Hydrogel with “Load-Sharing” Effect as Tissue Bandages for Drug and Cell Delivery.](#)
(Advanced Materials)
Jing Chen, Dong Wang, Long-Hai Wang, WanJun Liu, Alan Chiu, **Kaavian Shariati**, Qingsheng Liu, Xi Wang, Zhe Zhong, James Webb, Robert E Schwartz, Nikolaos Bouklas, Minglin Ma
 4. [Stimuli-Responsive Insulin Delivery Devices.](#)
(Pharmaceutical Research)
Stephanie Fuchs, **Kaavian Shariati**, Minglin Ma
 3. [Selective monitoring of insulin secretion after CRISPR interference in intact pancreatic islets despite submaximal infection.](#) (Islets)
Kaavian Shariati, Zachary Pappalardo, Deeksha G Chopra, Nicholas Yiv, Robin Sheen, Gregory Ku
 2. [Specialty tough hydrogels and their biomedical applications.](#)
(Advanced Healthcare Materials)
Stephanie Fuchs, **Kaavian Shariati**, Minglin Ma
- 2019**
1. [Nanotechnology in cell replacement therapies for type 1 diabetes.](#)
(Advanced Drug Delivery Reviews)
Alexander U Ernst, Daniel T Bowers, Long-Hai Wang, **Kaavian Shariati**, Mitchell D Plessner, Natalie K Brown, Tigran Mehrabyan, Minglin Ma

HONORS & AWARDS

2026	PSRC 2026 Top Abstract (Forthcoming) – Top 2% of 910 Submissions
2025	Sigma Xi Research Grant
2020-Present	Member, Sigma Xi
2020	National GEM Consortium Poster Conference
2019	Distinguished Research Scholar, Cornell University
2018-2019	Dean's List, Cornell University

2019	Semi-Finalist, Cornell Big Idea Competition
2018	Alumni Association Grant, Cornell College of Agricultural and Life Sciences
2018	Social Innovation Award, Cornell Engineering Innovation Competition
2016	Scholarship, Lilly Diabetes Tomorrow's Leaders

LEADERSHIP EXPERIENCE

Aerospace Medicine Interest Group – <i>David Geffen School of Medicine, UCLA</i> <u>Vice President</u> Led initiatives to advance medical student engagement in aerospace medicine through educational events, research opportunities, and interdisciplinary collaboration.	April 2023–Present Los Angeles, CA
Medical School Council – <i>David Geffen School of Medicine, UCLA</i> <u>Vice President (Class of 2026)</u> As Vice President, I represented the voices of the class of 2026 when engaged in dialogue with faculty and administration, and when adjudicating policies and affairs with the class president. I ensured our dialogue was centered around safeguarding the careers and wellbeing of our class, and reported the proposed changes back to the student body.	September 2022–Sep 2024 Los Angeles, CA
Operation Smile – <i>David Geffen School of Medicine, UCLA</i> <u>Executive Chairperson, Research Chair</u> The Operation Smile student interest group is dedicated to raising awareness and funds for children with cleft lip and palate in underserved communities. We engage in educational activities, host fundraising events, and collaborate with healthcare professionals to support global medical missions. Our members are passionate about making a difference by promoting access to life-changing surgeries. Together, we strive to embody the spirit of compassion and service in our future medical careers.	July 2023–Present Los Angeles, CA
Los Angeles Global Health Conference – <i>David Geffen School of Medicine, UCLA</i> <u>Communications/Public Relations Chair</u> The Los Angeles Global Health Conference (LAGHC) is the largest student-run global health conference in Southern California and is organized by students from UCLA, USC, and the Kaiser Permanente School of Medicine (KPSM). The conference brings together participants around the globe to discuss the state of health disparities nationally and internationally. As chair of the 2024 conference, I oversaw program design, speaker curation, and events exploring health equity, innovation, and social justice, uniting over 500 participants. I also spearheaded interactive workshops and networking events to foster collaboration and engagement.	August 2022–August 2023 Los Angeles, CA
Health Design and Technology Project Team – <i>Cornell University Mechanical and Aerospace Engineering</i> <u>Co-Director, Business Director, Integrative Design Engineer</u> Cornell HealthTech/Engineering World Health is a project team concerned with the development of technology meant to solve health technology problems. As an Integrative Design Engineer, I focused on the design and construction of passive components for devices and systems. I served as co-director of the 40-person, interdisciplinary team, and oversaw device building, project exploration, and team marketing/expanding. In this role, I started INDAGO, a tool meant to simplify filing investigative new drug applications, planned our first hackathon, rebranded our team, and expanded the scope of our projects.	August 2017–May 2020 Ithaca, NY

TEACHING EXPERIENCE

Principles of Biochemistry – <i>Cornell University Department of Molecular Biology and Genetics</i> <u>Teaching Assistant</u> I taught and reviewed challenging Biochemistry topics with students. I administered written and oral quizzes to test student knowledge and confirm mastery of concepts, and worked closely with the biochemistry teaching team to provide critical feedback and insight into students' performances.	August 2018–May 2019 Ithaca, NY
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COMMUNITY SERVICE AND VOLUNTEERING

Youth Empowerment Program – <i>JYSEP, The Primary School</i> <u>Program Coordinator</u> As an Empowerment Program Coordinator, I worked with the Primary School and the Junior Youth Empowerment Program to lead activities meant to strengthen students' moral and intellectual capacities through service, art, and recreation. Initially a counselor, I was promoted to a coordinator. In this role, I established a media literacy camp to explore the cross-section of media, self-image, and health. I also led a Science Club at the Primary School, where I taught 2nd and 3rd graders to perform chemistry and physics experiments. As the program grew each summer, many camp attendees went on to become counselors, and the science club became the most popular school program with over 30 students.	August 2011–August 2020 San Francisco, CA
The(sugar)Science <u>Technical Writer</u> Eager to stay informed about progress made in diabetes technology and research, and excited to communicate that progress to others, I volunteered as a technical writer/designer for the(sugar)science. The(sugar)science is a digital platform which connects scientists studying diabetes to facilitate collaboration and innovation. As a member of the Wovens team, I prepared posts and infographics which provide an overview of different research subjects, groups, and companies, and how they relate to diabetes; this is the most-visited page on the website.	June 2020–June 2021 San Francisco, CA

CLINICAL TRAINING

David Geffen School of Medicine at UCLA

Completed Core Clinical Clerkships: Internal Medicine, Surgery, Pediatrics, Obstetrics & Gynecology, Family Medicine, Emergency Medicine, Neurology, Psychiatry

Discovery Year: Additional Longitudinal Clinical Experience and formal Discovery Year training in basic, clinical, and translational research.

SKILLS

Programming: Python, MATLAB, Arduino IDE, C/C++ (Basics), HTML/CSS (Basics)

Spatial Computation / Imaging Analysis: 3D Slicer, OpenPNM, Dragonfly Software, radiomics, medical image segmentation, 3D imaging analysis, 4D/spatiotemporal imaging analysis, CT/micro-CT analysis, 3D reconstruction, volumetric/morphometric analysis, network modeling

Computational / Quantitative Research: statistical analysis, data visualization, quality control, reproducible research workflows

CAD / Design / Modeling: Fusion 360, Autodesk Maya, Blender, CAD/3D modeling, schematic design

Simulation / Engineering Modeling: COMSOL Multiphysics, computational modeling

Wet Lab / Translational Methods: cell and tissue culture, assay development, PCR, ELISA, spectrophotometry, protein expression and purification, biomaterials characterization, animal handling

Fabrication / Prototyping: 3D printing, electrospinning, basic machine shop skills

Research / Scholarly Work: manuscript preparation, scientific writing and editing, literature review/systematic review/evidence synthesis, study design, retrospective clinical research, figure and table preparation