# Curriculum Vitae: Jia Liu

Harvard John A. Paulson School of Engineering and Applied Sciences Harvard University

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Academic Appointments		
01/2019-	Assistant Professor of Bioengineering, School of Engineering and Applied Sciences, Harvard	
	University	
2015-2018	Postdoctoral fellow, Department of Chemical Engineering and Bioengineering, Stanford	
	University	
2014-2015	Postdoctoral Researcher, Department of Chemistry and Chemical Biology, Harvard University	
<b>Education</b>		
2009-2014	Ph.D., Chemistry, Harvard University	
2005-2009	B.S., Chemistry, Fudan University	
A	Hannana.	
Awards and		
2022	Inventor Under 35 (Global List) by MIT Technology Review	
2022	"Rising Star" Award by Advanced Materials	
2022	Air Force Office of Scientific Research (AFOSR) Young Investigator Program (YIP) Award	
2021	NIH/NIDDK Catalyst Award (DP1, Director's Pioneer Award Program)	
2021 2021	2021 MRS Best Symposium Presentation Award	
	Harvard SEAS LInc Faculty Fellowship William F. Milton Award	
2020 2020	Harvard Stem Cell Institute Seed Grant Award	
2019, 2020 2019	Harvard Dean's Competitive Fund for Promising Scholarship	
2016	Aramont Award for Junior Faculty Springer Thesis Award for Best Thesis Annually	
2016	Finalist, Burroughs Wellcome Fund, Career Award at the Scientific Interface	
2015	Most Notable Chemistry Research Advances for "Syringe-injectable Electronics" by <i>C&amp;EN</i>	
2015	Top 10 World Changing Ideas for "Syringe-injectable Electronics" by Caziv	
2014	Outstanding Chinese Students Studying Abroad	
2012		
2009	Harvard Fieser Lectureship Award  Academic Scholarship of Individual Scientific and Technology Innovation	
2009		
2007-2008	Hui-Chun Chin and Tsung-Dao Lee Fellowship Exxon Mobil Scholarship	
2005	·	
2005	State Champion, National High School Chemistry Olympiad	
Ctual and Au	and and Hanana	
	ards and Honors	
2021	Graduate student Paul Le Floch was named to the <b>Forbes 30 under 30</b>   2022 Science list.	
2021	Graduate student Paul Le Floch received MRS Graduate Student Gold Award at the 2021 MRS	
2024	Fall Meeting.	
2021	Graduate student Ariel Lee received NSF Graduate Student Fellowship.	
2021	Graduate student Jaeyong Lee received <b>Kwanjeong Fellowship</b> from Kwanjeong Education	

Fellowship			
Graduate student Hao Sheng received Aramont Award for Graduate Student			
Undergraduate student Thomas Blum received the Davenport College Richter Summe	r		
Fellowship			

Graduate student Yichun He received James Mills Piece Fellowship from Harvard Graduate

Undergraduate student Daniel Solomon received Harvard College Research Program

Foundation

School of Arts and Sciences

2020

2020

20192019

### **Professional Services**

2022-present Ad hoc member, NIH study section

2021-present Co-founder and scientific advisor, Axoft, Inc.

2021-present Editorial Board, Nano Futures, IOP Publishing

2019-present NSF review panelist in ECCS, CBET, and Biomaterials divisions

2015-2020 Member, Community Board, *Nanoscale Horizons*, Royal Society of Chemistry

2021-present Member, American Chemical Society 2012-present Member, Materials Research Society

2007-present Reviewer for journals including Science, Nature Electronics, Nature Nanotechnology, Nature

Communications, Neuron, Proceedings of the National Academy of Sciences USA, Science Advances, Nano Letters, Chemical Review, ACS Nano, Advanced Materials, Angewandte Chemie International Edition, ACS Applied Materials & Interfaces, Trends in Biotechnology,

Advanced NanoBiomed Research, and Analytical Chemistry.

## **Institutional Services at Harvard**

2021-2022 Committee member for the Open Rank Faculty Search in Soft Matter, Harvard SEAS

2020-present Member in Harvard Brain Science Initiative

2020-present Committee member in SEAS Committee on Diversity, Inclusion, and Belonging (DIB)

2019-present Faculty lead and advisor in Harvard International Genetically Engineered Machine (iGEM) team

2019-present Committee member for the Graduate Admission and Scholarship (ES-BIO)

2019-2020 Committee member for the junior faculty search in the Harvard Quantitative Biology Initiative

2019, 2021 Committee member in the Engineering Committee of Higher Degrees (CHD)

## **Journal Publications** (# co-first author, \* corresponding author)

- 1. H. Zeng#, J. Huang#, H Zhou#, W. J. Meilandt, B. Dejanovic, Y. Zhou, C. J. Bohlen, S.-H. Lee, J. Ren, A. Liu, H. Sheng, <u>Jia Liu</u>, M. Sheng\* and X. Wang\*, "Integrative *in situ* mapping of single-cell transcriptional states and tissue histopathology in an Alzheimer's disease model," **Nature Neuroscience** *Accepted in Principle*.
- 2. S. Zhao#, X. Tang#, S. Partarrieu#, S. Guo, R. Liu, J. Lee, Z. Lin, and <u>Jia Liu\*</u>, "Tracking neural activity from the same cells during the entire adult life of mice," BioRxiv DOI: https://doi.org/10.1101/2021.10.29.466524. **Nature Neuroscience** *Accepted in Principle*.
- 3. C. Sessler et al., X. Wang\* and <u>Jia Liu\*</u>, "Optogenetic polymerization and assembly of electrically functional polymers for single-neuron excitability modulation" **Science Advances** *In press*.
- P. Le Floch#, Q. Li#, Z. Lin#, R. Liu, K. Tasnim, S. Zhao, H. Jiang and <u>Jia Liu\*</u>, "Stretchable mesh nanoelectronics for three-dimensional single-cell chronic electrophysiology from developing brain organoids," Advanced Materials 34, 2106829 (2022). "Rising Stars" series in Advanced Materials.
- 5. X. Tang#, Y. He# and <u>Jia Liu</u>\*, "Soft bioelectronics for cardiac interfaces," **Biophysics Reviews** 3, 011301 (2021). (Invited Review).
- 6. A. Aditham#, H. Shi#, J. Guo, Y. Zhou, S. Wade, J. Huang, H. Zeng. <u>Jia Liu</u> and X. Wang\*, "Chemically modified mocRNAs for highly efficient protein expression in mammalian cells," **ACS Chemical Biology** (2022).
- 7. K. Tasnim and <u>Jia Liu\*</u>, "Emerging bioelectronics for brain organoid electrophysiology," **Journal of Molecular Biology** 3, 011301 (2021). (Invited Review).
- 8. C.D. Sessler, Z. Huang, X. Wang and <u>Jia Liu\*</u>, "Functional nanomaterial-enabled synthetic biology," **Nano Futures** 5, 022001 (2021). (Invited Review).
- 9. Y. He#, X. Tang#, J. Huang, H. Zhou, Y, K. Chen, A. Liu, J. Ren, H. Shi, Z. Lin, Q. Li, A. Aditham, J. Shu, <u>Jia Liu\*</u> and X. Wang\*, "ClusterMap: multi-scale clustering analysis of spatial gene expression," **Nature Communications** 12, 5909 (2021).

- 10. R. Liu#, S. Zhao# and <u>Jia Liu\*</u>, "From lithographically-patternable to genetically-patternable electronic materials for miniaturized, scalable, and soft implantable bioelectronics to interface with nervous and cardiac systems," **ACS Applied Electronic Materials** 3, 101-118 (2021). (Invited Review).
- 11. S. Zhang, Y. Wang, X. Yao, P. Le Floch, X. Yang, <u>Jia Liu</u> and Z. Suo\*, "Stretchable electrets: nanoparticle-elastomer composites," **Nano Letters** 20, 4580-4587 (2020).
- 12. P. Le Floch, N. Molinari, K. Nan, S. Zhang, B. Kozinsky, Z. Suo and <u>Jia Liu\*</u>, "Fundamental limits to the electrochemical impedance stability of dielectric elastomers in bioelectronics," **Nano Letters** 20, 224-233 (2020).
- 13. <u>Jia Liu#</u>, X. Zhang#, Y. Liu#, M. Rodrigo, P. Loftus, J. Valenzuela, J. Zheng, T. Pong, K. Cyr, M. Babakhanian, J. Hasi, J. Li, Y. Jiang, C. Kenney, P. Wang, A.M. Lee\* and Z. Bao\*, "Intrinsically stretchable electrode array enabled in vivo electrophysiological mapping of atrial fibrillation at cellular resolution," **Proceedings of the National Academy of Sciences USA**, 117, 14769-14778 (2020).
  Highlight: Stanford Cardiovascular Institute Annual Manuscript Award, 2021.
- 14. <u>Jia Liu#</u>, J. Wang#, Z. Zhang#, F. Molina-Lopez, G.-J.N. Wang, B.C. Schroeder, X. Yan, Y. Zeng, O. Zhao, H. Tran, T. Lei, Y. Lu, Y.-X. Wang, J.B.-H. Tok, R. Dauskardt, J. Chung, Y. Yun\* and Z. Bao\*, "Fully stretchable active-matrix organic light-emitting electrochemical cell array," **Nature Communications** 11, 3362 (2020).

Highlights: 2020 Top 50 Chemistry and Materials Sciences Articles.

15. <u>Jia Liu#</u>, Y.S. Kim#, C.E. Richardson#, A. Tom#, C. Ramakrishnan, F. Birey, T. Katsumata, S. Chen, C. Wang, X. Wang, L.-M. Joubert, Y. Jiang, H. Wang, L.E. Fenno, J. B.-H. Tok, S.P. Pasca, K. Shen, Z. Bao\* and K. Deisseroth\*, "Genetically targeted chemical assembly of functional materials in living cells, tissues, and animals," **Science** 367, 1372-1376 (2020).

## Highlights:

- Special issue in **Science**: "Bioelectronics herald the rise of the cyborg" (2017).
- Inverse Cover Image and News and Views highlights in Science: "Neuron-targeted electrical modulation".
- Perspective highlight in Nature Methods: "It's a material world".
- Featured by Chemical & Engineering News, ScienceDaily, Phys.org, New Scientist, etc.
- 16. Y. Liu#, <u>Jia Liu</u>#, S. Chen, T. Lei, Y. Kim, S. Niu, H. Wang, X. Wang, A. M. Foudeh, J. B.-H. Tok and Z. Bao\*, "Soft and elastic hydrogel-based microelectronics for localized low-voltage neuromodulation," **Nature Biomedical Engineering** 3, 58-68 (2019).
  - **Highlights:** Cover image, and News and Views highlights in **Nature Biomedical Engineering**: "Elastic and conductive hydrogel electrodes"
- 17. Q. Li#, K. Nan#, P. Le Floch#, Z. Lin, H. Sheng and <u>Jia Liu\*</u>, "Cyborg organoids: implantation of nanoelectronics via organogenesis for tissue-wide electrophysiology," **Nano Letters** 19, 5781-5789 (2019). **Highlights:** Featured by *ScienceDaily*, *Phys.org*, *Newatlas*, *Eurekalert*, *Harvard Gazette*, *ACS News*, *etc.*
- 18. X. Wang#, W. E. Allen#, M. A. Wright, E. L. Sylwestrak, N. Samusak, S. Vesuna, K. Evans, C. Liu, C. Ramakrishnan, <u>Jia Liu</u>, G. P. Nolan\*, F. A. Bava\*, and K. Deisseroth\*, "Three-dimensional intact-tissue sequencing of single-cell transcriptional states," **Science** 361, eaat5691 (2018).
- 19. Y. Kim#, A. Chortos#, W. Xu#, Y. Liu, J. Oh, D. Son, J. Kang, A. M. Foudeh, C. Zhu, Y. Lee, S. Niu, <u>Jia Liu</u>, R. Pfattner, Z. Bao\* and T. Lee\*, "A bio-inspired flexible organic artificial afferent nerve," **Science**, 360, 998-1003 (2018).
- 20. <u>Jia Liu</u> and Z. Bao, "Roadmap of polymer bioelectronics-cell interface," **Physical Biology** 15, 031002 (2017) (Invited Perspective).
- 21. T. Lei, M. Guan, <u>Jia Liu</u>, H. Lin, R. Pfattner, L. Shaw, A. F. McGuire, T. Huang, L. Shao, K. Cheng, J. B.-H. Tok and Z. Bao\*, "Biocompatible and totally-disintegrable semiconducting polymer for ultrathin and ultra-

- lightweight transient electronics," **Proceedings of the National Academy of Sciences USA** 114, 5107-5112 (2017).
- 22. Y. Wang, C. Zhu, R. Pfattner, H. Yan, L. Jin, S. Chen, F. M. Lopez, F. Lissel, <u>Jia Liu</u>, N. I. Rabiah, Z. Chen, J. W. Chung, C. Linder, M. F. Toney, B. Murmann, Z. Bao\*, "A highly stretchable, transparent and conductive polymer," **Science Advances** 3, 3 (2017).
- 23. A. Chortos#, <u>Jia Liu</u># and Z. Bao\*, "Pursuing prosthetic electronic skin," **Nature Materials** 15, 937-950 (2016).
- 24. Z. Chen, P. Hsu, J. Lopez, Y. Li, J. W. F. To, N. Liu, C. Wang, S. Andrews, <u>Jia Liu</u>, Y. Cui\* and Z. Bao\*, "Fast and reversible thermo-responsive polymer switching for safer batteries," **Nature Energy** 1, 15009 (2016).
- 25. X. Dai#, W. Zhou#, T. Gao, <u>Jia Liu</u> and C. M. Lieber\*, "Three-dimensional mapping and regulation of action potential propagation in nanoelectronics innervated tissues," **Nature Nanotechnology** 11, 776-782 (2016).
- 26. C. Xie#, <u>Jia Liu</u>#, T. Fu#, X. Dai, W. Zhou and C. M. Lieber\*, "Three-dimensional macroporous nanoelectronic networks as minimally-invasive brain probes," **Nature Materials** 14, 1286-1292 (2015).
- 27. <u>Jia Liu</u>#, T. Fu#, Z. Cheng#, G. Hong, T. Zhou, L. Jin, M. Duvvuri, Z. Jiang, P. Kruskal, C. Xie, Z. Suo, Y. Fang\* and C. M. Lieber\*, "Syringe-injectable electronics," **Nature Nanotechnology** 10, 629-636 (2015). **Highlights:** 
  - Special issue in **Science**: "Bioelectronics herald the rise of the cyborg" (2017).
  - 10 World-Changing Ideas, 2015 awarded by Scientific American.
  - Top Research of 2015 awarded by Chemical and Engineering News.
  - Cover Image and News and Views highlights in <u>Nature Nanotechnology</u>: "Bioelectronics: injection and unfolding".
  - Featured articles highlighted in scientific journals: <u>Nature, Nature Methods</u>, <u>Nature Biotechnology</u>, <u>Science Translational Medicine</u>, <u>Nano Today</u>, <u>Physics Today</u>, and <u>NPG Asia Materials</u>.
  - Featured in News Reports: <u>Chemical and Engineering News</u>, <u>Science Daily</u>, <u>National Geographic</u>, <u>Scientific American</u>, <u>Chemistry World</u>, <u>Smithsonian</u>, etc.
- 28. W. Zhou#, X. Dai#, T. Fu, C. Xie, <u>Jia Liu</u> and C. M. Lieber\*, "Long term stability of nanowire nanoelectronics in physiological environments," **Nano Letters** 14, 1614-1619 (2014).
- 29. X. Duan, T. Fu, <u>Jia Liu</u> and C. M. Lieber\*, "Nanoelectronics-biology frontier: From nanoscopic probes for action potential recording in live cells to three-dimensional cyborg tissues," **Nano Today** 8, 351-373 (2013) (Invited Review).
- 30. <u>Jia Liu</u>#, C. Xie#, X. Dai#, L. Jin, W. Zhou and C. M. Lieber\*, "Multifunctional three-dimensional macroporous nanoelectronic networks for smart materials," **Proceedings of the National Academy of Sciences USA** 110, 6694-6699 (2013).
  - Highlights: Highlighted in Scientific American: "Soft Circuits".
- 31. B. Tian#, <u>Jia Liu</u>#, T. Dvir#, L. Jin, J. H. Tsui, Q. Qing, Z. Suo, R. Langer, D. S. Kohane\* and C. M. Lieber\*, "Macroporous nanowire nanoelectronic scaffolds for synthetic tissues," **Nature Materials** 11, 986-994 (2012). **Highlights:** 
  - Special issue in **Science**: "The cyborg era begins" (2013).
  - 2012 annual highlights, Chemical and Engineering News: "Integrating man and machine".
  - Featured in <u>Chemical and Engineering News, Physics World, MIT News, New Scientist, Science Daily.</u> etc.

- 32. <u>Jia Liu</u>, Y. Cai, Y. Deng\*, Z. Sun, D. Gu, B. Tu and D. Zhao\*, "Magnetic 3-D ordered macroporous silica templated from binary colloidal crystals and its application for effective removal of microcystin," **Microporous Mesoporous Materials** 130, 26-31 (2010).
- 33. Y. Deng, Y. Cai, Z. Sun, <u>Jia Liu</u>, C. Liu, J. Wei, W. Li, C. Liu, Y. Wang and D. Zhao\* "Multifunctional mesoporous composite microspheres with well-designed nanostructure: a highly integrated catalyst system," **Journal of the American Chemical Society** 132, 8466-8473 (2010).
- 34. <u>Jia Liu</u>, Z. Sun, Y. Deng, Y\*. Zou, C. Li, X. Guo, L. Xiong, Y. Gao, F. Li and D. Zhao\*, "Highly water-dispersible biocompatible magnetite particles with low cytotoxicity Stabilized by citrate groups," **Angewandte Chemie International Edition** 121, 5989-5993 (2009).
- 35. <u>Jia Liu</u>, Y. Deng\*, C. Liu, Z. Sun and D. Zhao\*, "A simple approach to the synthesis of hollow microspheres with magnetite/silica hybrid walls," **Journal of Colloid and Interface Science** 333, 329-334 (2009).
- 36. Y. Deng, C. Deng, D. Qi, C. Liu, <u>Jia Liu</u>, X. Zhang and D. Zhao\*, "Synthesis of core/shell colloidal magnetic zeolite microspheres for the immobilization of trypsin," **Advanced Materials** 21, 1377-1382 (2009).
- 37. C. Liu, Y. Deng, <u>Jia Liu</u>, H. Wu and D. Zhao\*, "Homopolymer induced phase evolution in mesoporous silica from evaporation induced self-assembly process," **Microporous Mesoporous Materials** 116, 633-640 (2008).
- 38. Y. Deng, <u>Jia Liu</u>, C. Liu, D. Gu, Z. Sun, J. Wei, J. Zhang, L. Zhang, B. Tu and D. Zhao\*, "Ultra-large-pore mesoporous carbons templated from poly (ethylene oxide)-b-polystyrene diblock copolymer by adding polystyrene homopolymer as a pore expander," **Chemistry of Materials** 20, 7281-7286 (2008).
- 39. Y. Deng, C. Liu, <u>Jia Liu</u>, F. Zhang, T. Yu, F. Zhang, D. Gu and D. Zhao\*, "A novel approach to the construction of 3-D ordered macrostructures with polyhedral particles," **Journal of Materials Chemistry** 18, 408-415 (2008).

### **Book (Chapters)**

40. Jia Liu, "Biomimetics through nanoelectronics," Springer Theses, 201

## **Selected Invited Oral Talks**

- 1. **Jia Liu**, 2022 Society of Engineering Science Annual Meeting, Texas A&M University, "Soft and flexible bioelectronics for brain-machine interface", October 16-19, 2022.
- 2. **Jia Liu**, Organic semiconductors and flexible electronics workshop, King Abdullah University of Science and Technology (KAUST), "Soft and flexible bioelectronics for brain-machine interface", October 10-12, 2022.
- 3. **Jia Liu**, *IEEE* International Conference on Flexible, Printable Sensors and Systems (FLEPS 2022), Vienna, Austria, "Soft and flexible bioelectronics for brain-machine interface", July 10-13, 2022.
- 4. **Jia Liu**, Canadian Chemistry Conference and Exhibition 2022, Calgary, Canada, "Tissue-like and genetically targeted bioelectronics for biology and medicine", June 13-17, 2022.
- 5. **Jia Liu**, Materials Research Society (MRS) 2022 Spring Meeting, "Tissue-like and genetically targeted nanoelectronics for biology and medicine", May 7-13, 2022.
- 6. Jia Liu, Westlake University, "Soft bioelectronics for brain-machine interface", April 14, 2022.
- 7. **Jia Liu** ACS Spring Meeting 2022, "Seamless integration of functional nanomaterials and nanoelectronics with biology", March 20-24, 2022.
- 8. Jia Liu, University of Notre Dame, "Soft bioelectronics for brain-machine interface", January 14, 2022.

- 9. **Jia Liu**, 89th New England Complex Fluids, "Soft bioelectronics for brain-machine interface", December 3, 2021.
- 10. **Jia Liu**, Materials Research Society (MRS) 2021 Fall Meeting, "Multimodal nanoelectronics for charting cell electrophysiological and molecular phenotypes in three-dimensional tissues across time and space", November 28 December 4, 2021.
- 11. **Jia Liu**, Seminar in Robert Langer Group, MIT, "Seamless integration of nanoelectronics with biology", November 9, 2021.
- 12. **Jia Liu**, Webinar for Nano Futures, "Seamless integration of functional nanomaterials and nanoelectronics with biology", November 4, 2021.
- 13. **Jia Liu**, Johns Hopkins University Brain Computer Interface Seminar, Johns Hopkins University, "Soft bioelectronics for brain-machine interface", October 29, 2021.
- 14. **Jia Liu**, "Best of Boston" Young Investigators session, 3D Cellular Models meeting, "Charting cell electrophysiological and molecular phenotypes across time and space", September 28-29, 2021.
- 15. **Jia Liu**, Danish Society for Neuroscience, "Soft brain-machine interface for stable long-term single-cell electrophysiology in behaving animals", June 11, 2021.
- 16. **Jia Liu**, Stanley Center for Psychiatric Research, Broad Institute of MIT and Harvard, "Soft brain-machine interface for stable long-term single-cell electrophysiology in behaving animals", June 10, 2021.
- 17. **Jia Liu**, CPS PI Meeting, NSF, "An Al-enabled cyber-physical-biological system for cardiac organoid maturation", June 2-4, 2021.
- 18. **Jia Liu**, Harvard Stem Cell Institute & Novo Nordisk Roundtable, "Charting cell electrophysiological and molecular phenotypes across time and space", May 5, 2021.
- 19. **Jia Liu**, Klarman Cell Observatory Mini-Symposium Talk, Broad Institute of MIT and Harvard, "Charting cell electrophysiological and molecular phenotypes across time and space", April 26, 2021.
- 20. **Jia Liu**, Harvard Stem Cell Institute, "Nanoelectronics-integrated cardiac organoids with defined cell types for online monitored and regulated transplantation", April 21, 2021.
- 21. **Jia Liu**, Boston Tech Hub Faculty Working Group (Virtual), "Implantable brain-computer interface: current status and future directions", December 8, 2020.
- 22. **Jia Liu**, Materials Research Society (MRS) 2020 Fall Meeting (Virtual), "Assembly of multifunctional nanoelectronic sensors via tissue development", November 27 December 4, 2020.
- 23. **Jia Liu**, Seoul National University (Virtual), "Assembly of electronics for tissue-wide electrophysiology with single-cell resolution and cell-type specificity", November 19, 2020.
- 24. **Jia Liu**, Lawrence Livermore National Lab (Virtual), "Assembly of multifunctional nanoelectronics via tissue development", October 23, 2020.
- 25. **Jia Liu**, The Electrochemical Society Prime 2020 (Virtual), "Assembly of multifunctional nanoelectronic sensors via tissue development", https://www.electrochem.org/prime2020/, October 4-9, 2020.
- 26. **Jia Liu**, Beckman New England Macro Workshop (Virtual), "Genetically-targeted chemical assembly of electrically active polymers in nervous systems", June 9, 2020.
- 27. Jia Liu, Center for Brain Science, Harvard, "Assembly of electronics in living brain", March 4, 2020.
- 28. **Jia Liu**, Zhejiang Research Institute of Chemical Industry Sinochem, Hangzhou, China, "Fluorinated elastomer-enabled wearable electronics and bioelectronics", December 23-25, 2019.
- 29. **Jia Liu**, Materials Research Society (MRS) 2019 Fall Meeting, Boston, "Bioelectronics for tissue-wide electrophysiology and cell-type-specific electrophysiological remodeling", December 1-6, 2019.
- 30. **Jia Liu**, 2019 Diabetic Lower Extremity Symposium, Harvard Medical School, Boston, "Cyborg technology for tissue engineering", November 7-8, 2019.

- 31. **Jia Liu**, Institute for Applied Computational Science (IACS), School of Engineering and Applied Sciences, Harvard. "Multimodal mapping of brain activity". October 4, 2019.
- 32. **Jia Liu**, 16th US-Korea Forum on Nanotechnology, San Diego, CA, "Functional assembly of bioelectronics for tissue-wide electrophysiology with single-cell resolution and cell-type specificity", September 23 & 24, 2019.
- 33. **Jia Liu**, Quantitative Biology Program (QBio), Harvard, "Tissue-wide interrogation and intervention of cellular electrophysiology", July 17, 2019.
- 34. **Jia Liu**, Topics in Bioengineering, Harvard, "Bioelectronics for brain and heart: from tissue-like electronics and genetically-targeted electrodes to whole-organ interface", October 18, 2018.
- 35. **Jia Liu**, Department of Neurobiology and Brain Research Institute, University of California, Los Angeles, "Bioelectronics for tissue and organ interfaces: from tissue-like electronics to genetically-targeted biosynthetic electrodes", May 8, 2018.
- 36. **Jia Liu**, Department of Biomedical Engineering, Cornell University, "Bioelectronics for tissue and organ interfaces: from tissue-like electronics to genetically-targeted biosynthetic electrodes", April 9, 2018.
- 37. **Jia Liu**, School of Engineering and Applied Sciences, Harvard University, "Bioelectronics for tissue and organ interfaces: from tissue-like electronics to genetically-targeted biosynthetic electrodes", March 19, 2018.
- 38. **Jia Liu**, Department of Biomedical Engineering, Washington University in St. Louis, "Bioelectronics for tissue and organ interfaces: from tissue-like electronics to genetically-targeted biosynthetic electrodes", February 22, 2018.
- 39. **Jia Liu**, Department of Bioengineering, University of California, Los Angeles, "Bioelectronics for tissue and organ interfaces: from tissue-like electronics to genetically-targeted biosynthetic electrodes", February 15, 2018.
- 40. **Jia Liu**, The Institute for Molecular Engineering, The University of Chicago, "Bioelectronics for tissue and organ interfaces: from tissue-like electronics to genetically-targeted biosynthetic electrodes", January 25, 2018.
- 41. **Jia Liu**, Department of Materials Science and Engineering, the University of Illinois at Urbana-Champaign, "Bioelectronics for tissue and organ interfaces: from tissue-like electronics to genetically-targeted biosynthetic electrodes", January 17, 2018.
- 42. **Jia Liu**, Department of Biomedical Engineering, University of Michigan, "Bioelectronics for tissue and organ interfaces: from tissue-like electronics to genetically-targeted biosynthetic electrodes", January 11, 2018.
- 43. **Jia Liu**, Materials Research Society (MRS) 2017 Fall Meeting, " Genetically-targeted brain-machine interface", November 30, 2017.
- 44. **Jia Liu**, Z. Bao and K. Deisseroth 2017 AlChE Annual Meeting, "Genetically-targeted brain-machine interface", October 30, 2017.
- 45. **Jia Liu**, A. Lee and Z. Bao 2017 AlChE Annual Meeting, "Printing fully stretchable thin-film-transistor array", October 29, 2017.