CURRICULUM VITAE

Lian HE, Ph.D.

Assistant Professor
Department of Pharmacology
School of Medicine
Southern University of Science and Technology (SUSTech)
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EDUCATION

Jun 2018 – present
Texas A&M University (TAMU) College of Medicine, College Station, TX, USA
Project: Optogenetic and chemogenetic tools development for cell biology
Postdoctoral Associate

Sep 2012 – May 2018
Texas A&M University (TAMU) College of Medicine, College Station, TX, USA
Dissertation Title: Engineered CRAC channel for optical control of calcium signaling
Ph.D. in Medical Sciences

Sep 2008 – June 2011
Sun Yat-sen University (SYSU) School of Life Sciences, Guangzhou, P.R. China
Thesis Title: Efficient and specific inhibition of plant microRNA function by anti-microRNA oligonucleotides (AMOs) in vitro and in vivo
Degree awarded: **M.S.** in Molecular Biology and Molecular Evolution

Sep 2004 – June 2008
Sun Yat-sen University (SYSU) School of Life Sciences, Guangzhou, P.R. China
Degree awarded: **B.S.** in Biotechnology

RESEARCH EXPERIENCE

06/2018 – Present Postdoctoral Associate, College of Medicine, Texas A&M University, USA (Advisor: Yubin Zhou, PhD)
Research Areas: Optogenetics; chemogenetics; antibody engineering; calcium channel; programmed cell death; Anti-CRISPR (Acr) protein engineering

- Circular permuted LOV2 (cpLOV2) and use it as a photo switchable modular for calcium signaling regulation and immune modulation
- Anti-CRISPR (Acr) protein engineering
- Design and engineer a calcium specific channel ORAI1 to make the single-component, blue-light operated calcium channel (LOCa)
- Design and optimize the widely used chemical induced dimerization system FRB-FKBP by circular permutation to make cpRARID
- Engineer light- or ligand-controllable monobodies and nanobodies and use them to precisely control a variety of biological processes
- Optogenetic control of necroptotic and pyroptotic signaling

09/2012 – 05/2018 Graduate Research Assistant, College of Medicine, Texas A&M University, USA (Advisor: Yubin Zhou, PhD)
Research Areas: CRAC channel; protein engineering; Optogenetics; Anti CRISPR; Immune therapy; drug screening

- Optical control of calcium signaling and optogenetic immunomodulation
- Expanded the repertoire of optogenetic tools by circular permutation of LOV2
- Set up an all-optical platform for screening of Ca^{2+} channel modulators and apply them to treat glioblastoma
- Applied light-controlled calcium signaling for precise transcriptional reprogramming.
- Developed optogenetic toolkit to control cellular organelles membrane tethering and interorganellar communication at nanoscales
- Identified STIMATE as a regulator of Ca^{2+} influx through proteomic mapping of ER–PM junctions and studied the function of STIMATE

09/2008 – 06/2011 Graduate Research Assistant, State Key Laboratory of Biocontrol, Laboratory of Drs. Shihua Su/Chung-I Wu, Sun Yat-sen University, Guangzhou, China (Advisor: Tian Tang, PhD)

Research Areas: microRNA; genome evolution; Drosophila; plant

- Comparative genomics and bioinformatics study in the evolution of microRNAs and microRNAs networks in plants and Drosophila
- Exploitation of effective methods to study microRNAs in vivo as key regulators in signal pathways in plants. First time ever, developed a new strategy for effective delivery of anti-miRNA oligonucleotides (AMO) and miRNA mimics into live plants to regulate miRNAs' expression thereby exploit the function of RNA molecules in cellular networks

HONORS AND AWARDS

2021	3rd Prize Winner of Society of Chinese Bioscientists in America-TX, The 34th Annual Symposium
2021	3rd Prize Winner of Outstanding Poster Awards (Postdoc), Student Research Symposium, TAMU
2018	Best Poster Award, FASEB Research Conference 2018
2017	2017 Chinese Government Award for Outstanding Self-financed Students Abroad
2017	Robert and Anabel Bruce Travel Award, GSO-Travel Award, TAMU
2017	IBT travel awards, TAMU
2016	Pre-doctoral Research Fellowship, The Welch Foundation
2016	2nd Prize Winner of Outstanding Poster Awards, Gulf Coast Consortia (GCC), Houston
2013	3rd Prize Winner of Outstanding Poster Awards, Student Research Symposium, TAMU
2008	The Best Dissertation Thesis Award, SYSU
2008	2nd Prize of Academic Excellence Scholarship, SYSU
2005	3rd Prize of Academic Excellence Scholarship, SYSU

PUBLICATIONS AND PATENTS

Google scholar: https://scholar.google.com/citations?hl=en&authuser=1&user=BVUlcywAAAAJ
(# denotes co-first authors; * denotes corresponding authors)

First, Co-First or corresponding author research articles

1. Optical control of protein delivery and partitioning in the nucleolus
   Tan P*, Hong T, Cai X, Li W, Huang Y, **He L***, Zhou Y*.
   Nucleic Acids Research 2022, doi: 10.1093/nar/gkac191. [PMID: 35325178] (**IF:16.971**)

2. Optogenetic control of non-apoptotic cell death
   He L#, Huang Z#, Huang K#, Chen R, Nguyen N, Wang R, Cai X, Huang Z, Han G, Zhou Y and Jing J.
   Advanced Science 2021,8(13):2100424. [PMID: 34540558] (**IF:16.806**)

3. Circularly permuted LOV2 as a modular photoswitch for optogenetic engineering

He L[#], Tan P[#], Zhu L[#], Huang K[#], Nguyen N, Wang R, Guo L, Li L, Yang Y, Huang Z, Huang Y, Han G, Wang J and Zhou Y.
Nature Chemical Biology 2021,17(8):915-923. [PMID: 33958793] (**IF:15.04**)

4. Design of smart antibody mimetics with photosensitive switches
He L[#,*], Tan P, Huang Y*, Zhou Y*.
Advanced Biology 2021,5(5):e2000541. [PMID: 34028213] (**IF:3.536**)

5. Engineering of a bona fide light-operated calcium channel
He L, Wang L, Zeng H, Tan P, Ma G, Zheng S, Li Y, Sun L, Dou F, Huang Y, Wang Y, and Zhou Y
Nature Communications 2021,12(1):164. [PMID: 33431868] (**IF:14.919**)
#**Editor's Highlights** in "Biotechnology and methods".

6. Caffeine-operated synthetic modules for chemogenetic control of protein activities by life style
Wang T[#], **He L**[#], Jing J, Lan TH, Hong T, Wang F, Huang Y, Ma G, and Zhou Y
Advanced Science 2021,8(3):2002148. [PMID: 33552855] (**IF:16.806**)
#**Cover Article**

7. Engineering supramolecular organizing centers for optogenetic control of innate immune responses
Tan P[#], **He L**[#], Zhou Y.
Advanced Biology 2021, 5(5):e2000147. [PMID: 34028210] (**IF:3.536**)

8. Optogenetic engineering to probe the molecular choreography of STIM1-mediated cell signaling
Ma G[#], **He L**[#], Liu S[#], Xie J, Huang Z, Jing J, Lee YT, Wang R, Luo H, Han W, Huang Y and Zhou Y.
Nature Communications 2020,11(1):1039. [PMID: 32098964] (**IF:14.919**)

9. Expanding the chemogenetic toolbox by circular permutation
Lee YT, **He L***, and Zhou Y*.
Journal of Molecular Biology 2020, 432(10):3127-3136. [PMID: 32277990] (**IF:5.469**)

10. Discovery of small molecule inhibitors of the HSP90-calcineurin-NFAT pathway against glioblastoma
Liu Z[#], Li H[#], **He L**[#], Yu X, Tian C, Tan P, Li C, Jing J, Tian Y, Du L, Huang Y, Han L, Li M, and Zhou Y.
Cell Chemical Biology 2019,26(3):352-65. [PMID: 30639261] (**IF:8.116**)

11. Identification of molecular determinants that govern distinct STIM2 activation dynamics
Zheng S[#], Ma G[#], **He L**[#], Zhang T, Li J, Yuan X, Nguyen NT, Huang Y, Zhang X, Gao P, Nwokonko RM, Gill DL, Dong H, Zhou Y, and Wang Y.
PLOS Biology 2018,16(11):e2006898. [PMID: 30444880] (**IF:8.029**)

12. Rewiring calcium signaling for precise transcriptional reprogramming
Nguyen NT[#], **He L**[#], Martinze-Moczygemba M, Huang Y and Zhou Y.
ACS Synthetic Biology 2018,16;7(3):814-821. [PMID: 29489336] (**IF:5.11**)

13. Optical control of membrane tethering and interorganellar communication at nanoscales
He L[#], Jing J[#], Zhu L[#], Tan P, Ma G, Zhang Q, Nguyen N, Wang J, Zhou Y, Huang Y.
Chemical Science 2017,8(8): 5275-5281. [PMID: 28959426] (**IF:9.825**)

14. Near-infrared photoactivatable control of Ca^{2+} signaling and optogenetic immunomodulation
He L[#], Zhang Y[#], Ma G[#], Tan P[#], Li Z, Zang S, Wu X, Jing J, Fang S, Zhou L, Wang Y, Huang Y, Hogan PG, Han G, and Zhou Y.
eLife 2015,4:e10024 [PMID: 26646180] (**IF:8.140**)

15. Proteomic mapping of ER–PM junctions identifies STIMATE as a regulator of Ca^{2+} influx
Jing J[#], **He L**[#], Sun A, Quintana A, Ding Y, Ma G, Tan P, Liang X, Zheng X, Chen L, Shi X, Zhang SL, Zhong L, Huang Y, Dong MQ, Walker CL, Hogan PG, Wang Y, and Zhou Y.
Nature Cell Biology 2015,17(10):1339-1347. [PMID: 26322679] (**IF:28.824**)

#Featured in News & Views by Nature Cell Biology.
#**He L,** et al. Protocol Exchange, DOI:10.1038/protex.2015.072.

16. Inside-out Ca^{2+} signaling prompted by STIM1 conformational switch
Ma G#, Wei M#, **He L#**, Liu C, Wu B, Zhang SL, Jing J, Liang X, Senes A, Tan P, Li S, Sun A, Bi Y, Zhong L, Si H, Shen Y, Lee MS, Zhou W, Wang J, Wang Y, and Zhou Y,
Nature Communications 2015,6: 7826. [PMID: 26184105] (**IF:14.919**)

17. Efficient and specific inhibition of plant microRNA function by anti-microRNA oligonucleotides (AMOs) in vitro and in vivo
He L, Xie M, Huang J, Zhang T, Shi S, and Tang T.
Plant Cell Report 2016, 35(4): 933-945. [PMID: 26792284] (**IF:4.57**)
(Chinese Patent, CN102181482 A. Publication date: Sep 14, 2011)

Co-author research articles

18. Identification of a STIM1 Splicing Variant that Promotes Glioblastoma Growth
Xie J, Ma G, Zhou L, **He L**, Zhang Z, Tan P, Huang Z, Fang S, Wang T, Lee YT, Wen S, Siwko S, Wang L, Liu J, Du Y, Zhang N, Liu X, Han L, Huang Y, Wang R, Wang Y, Zhou Y, and Han W.
Advanced Science 2022,25;e2103940. [PMID: 35076181] (**IF:16.806**)

19. Structural Determinants for Light-Dependent Membrane Binding of a Photoswitchable Polybasic Domain
Li L, **He L**, Wu B, Yu C, Zhao H, Zhou Y, Wang J and Zhu L.
ACS Synthetic Biology 2021,10(3):542-551. [PMID: 33689308] (**IF:5.11**)

20. Myeloid loss of Beclin 1 promotes PD-$L1^{hi}$ precursor B cell lymphoma development
Tan P, **He L**, Xing C, Mao J, Yu X, Zhu M, Diao L, Han L, Zhou Y, You JM, Wang HY, and Wang RF.
The Journal of Clinical Investigation 2020,130(10):5349-5369. [PMID: 31503548] (**IF:14.808**)

21. Calcium oscillations coordinate feather mesenchymal cell movement by SHH dependent modulation of gap junction networks
Li A, Cho JH, Reid B, Tseng CC, **He L**, Tan P, Yeh CY, Wu P, Li Y, Widelitz R, Zhou Y, Zhao M, Chow R, Chuong CM.
Nature Communications 2018,9:5337. [PMID: 30560870] (**IF:14.919**)

22. Digitoxin suppresses store operated calcium entry by modulating phosphorylation and the pore region of Orai1
Zhou L, Chi X, Zhu Y, Zhang T, Liu J, Ma G, He L, Zhang S, Gao P, Zhou Y, Liu J, Wang Y.
Current Molecular Medicine 2018;18(6):392-399. [PMID: 30421677] (**IF:2.222**)

23. TRIM59 promotes breast cancer motility by suppressing p62-selective autophagic degradation of PDCD10
Tan P, Ye Y, **He L**, Xie J, Jing J, Ma G, Pan H, Han L, Han W, and Zhou Y.
PLOS Biology 2018,16(11):e3000051. [PMID: 30408026] (**IF: 8.029**)

24. Genetically encoded tags for real time dissection of protein assembly in living cells
Ma G, Zhang Q, **He L**, Liu S, Huang Y, and Zhou Y.
Chemical Science 2018,9(25):5551-9. [PMID: 30061986] (**IF:9.825**)

25. Assembly of the WHIP-TRIM14-PPP6C mitochondrial complex promotes RIG-I-mediated antiviral signaling
Tan P, **He L**, Cui J, Cao X, Qian C, Lin M, Xing C, Zhu Q, Li Y, Yu X, Wang Y, and Wang RF.
Molecular Cell 2017, 68(2):293-307. [PMID: 29053956] (**IF:17.97**)
#Issue Highlight and Previewed "Unexpected Alliance of WHIP-TRIM14-PPP6C to Combat Viruses" by Molecular Cell.

26. Leucine-rich repeat–containing G protein–coupled receptor 4 (Lgr4) is necessary for prostate cancer metastasis via epithelial–mesenchymal transition
Luo W, Tan P, Rodriguez M, **He L**, Tan K, Siwko S, and Liu M.
The Journal of Biological Chemistry 2017, 292(37):15525-15537. [PMID: 28768769] (**IF:5.157**)

27. An engineered split-TET2 enzyme for inducible epigenetic remodeling
Lee M, Li J, Liang Y, Ma G, Zhang J, **He L**, Liu Y, Sun D, Zhou Y and Huang Y.
Journal of the American Chemical Society 2017,139(13):4659-4662.[PMID: 28294608] (**IF:15.419**)

28. Molecular determinants for STIM1 activation during store-operated Ca^{2+} entry
Ma G, Zheng S, Ke Y, Zhou L, **He L**, Huang Y, Wang Y, and Zhou Y.
Current Molecular Medicine 2017,17(1):60-69.[PMID: 28231751] (**IF:2.222**)

29. TRIM14 inhibits cGAS degradation mediated by selective autophagy receptor p62 to promote innate immune responses
Chen M, Meng Q, Qin Y, Liang P, Tan P, **He L**, Zhou Y, Chen Y, Huang J, Wang RF and Cui J.
Molecular Cell 2016, 64(1):105-119. [PMID: 27666593] (**IF:17.97**)

30. Expression variations of miRNAs and mRNAs in rice (Oryza sativa)
Wen M, Xie M, **He L**, Wang Y, Shi S, and Tang T.
Genome Biology and Evolution 2016,8(11):3529-3544. [PMID: 27797952] (**IF:3.416**)

31. Molecular mechanisms underlying inhibition of STIM1-Orai1-mediated Ca^{2+} entry induced by 2-aminoethoxydiphenyl borate
Wei M, Zhou Y, Sun A, Ma G, **He L**, Zhou L, Zhang S, Liu J, Zhang SL, Gill DL, and Wang Y.
Pflügers Archiv-European Journal of Physiology 2016, 468 (11-12): 2061-2074.[PMID: 27726010] (**IF:3.657**)

32. Stromal interaction molecule 1 (STIM1) and Orai mediate histamine-evoked calcium entry and NFAT signaling in human umbilical vein endothelial cells
Zhou MH, Zheng H, Si H, Jin Y, Peng MJ, **He L**, Zhou Y, Munoz-Garay C, Zawieja DC, Kuo L, Xu P, and Zhang SL.
The Journal of Biological Chemistry 2014,289(42): 29446-29456. [PMID: 25190815] (**IF:5.157**)

33. Gene expression profiles in response to salt stress in Hibiscus tiliaceus
Yang G, Zhou R, Tang T, Chen X, Ouyang J, **He L**, Li W, Chen S, Guo M, Li X, Zhong C, and Shi S.
Plant Molecular Biology Reporter 2011,29(3): 609-617. (**IF:1.595**)

34. Comparative genomics of two ecologically differential populations of Hibiscus tiliaceus under salt stress
Yang G, Chen X, Tang T, Zhou R, Chen S, Li W, Ouyang J, **He L**, and Shi S.
Functional Plant Biology 2011,38(3):199-208. [PMID: 32480876] (**IF:3.101**)

35. Habitat differentiation between estuarine and inland Hibiscus tiliaceus L.(Malvaceae) as revealed by retrotransposon-based SSAP marker
Tang T, **He L**, Peng F, and Shi S.
Australian Journal of Botany 2011,59 (6),515-522. (**IF:1.237**)

Invited reviews and book chapters

36. Optophysiology: illuminating cell physiology with optogenetics
Tan P, **He L**[#], Huang Y, and Zhou Y.
Physiological Reviews 2022, doi:10.1152/physrev.00021.2021. [PMID: 35072525] (**IF: 37.312**)

37. CRAC channel-based optogenetics
Nguyen NT, Ma G, Lin E, D'Souza B, Jing J, **He L**, Huang Y and Zhou Y.
Cell Calcium 2018,75:79-88. [PMID: 30199756] (**IF:6.817**)

38. Optogenetic toolkit for precise control of calcium signaling
Ma G, Wen S, **He L**, Huang Y, Wang Y, and Zhou Y.
Cell Calcium 2017, 64:36-46. [PMID:28104276] (**IF:6.817**)

39. Optogenetic immunomodulation: shedding light on the antitumor immunity

Tan P, **He L**, Han G, and Zhou Y.
Trends in Biotechnology 2016,35(3):215-226. [PMID: 27692897] (**IF:19.536**)

40. Optogenetic control of calcium influx in mammalian cells
Lee YT, Chen R, Zhou Y[#] and **He L**[#]
Methods in Enzymology 2021,654:255-270. [PMID: 34120716]

41. Autophagy and viral infection
Mao J, Lin E, **He L**, Yu J, Tan P and Zhou Y
Autophagy Regulation of Innate Immunity 2019,1209:55-78. [PMID: 31728865]

42. Fluorescence-based ratiometric measurement of the CRAC channel activity in HEK293 cells
Zhang S, **He L**, Zhou Y, and Wang Y.
Methods in Molecular Biology 2018,1843:17-39. [PMID: 30203274]

43. Engineered cross-linking to study the pore architecture of CRAC channels
Ma G, **He L**, Jing J, Tan P and Zhou Y.
Methods in Molecular Biology 2018,1843:147-166. [PMID: 30203285]

44. Optogenetic approaches to control calcium entry in non-excitable cells
He L, Zhang Q, Zhou Y, and Huang Y.
Calcium entry channels in non-excitable cells. 2017:145-160. CRC Press/Taylor & Francis; 2018. Chapter 8.
[PMID: 30299659]

Patent applications

1. Zhou Y, **He L**, Wang L. Smart Single-Domain Intrabodies with Precision Switches for Biomedical Applications. In Process

2. Zhou Y, **He L**. Engineering of a bona fide light-operated calcium channel. U.S. Prov. App. No.63/127,506.

3. Zhou Y, Huang Y, Nguyen NT, **He L**. Methods and systems for modulating intracellular gene expression U.S. Prov. App. No. 62/735,968.

4. Zhou Y and **He L**. Chemical modulators of store operated calcium channel and their therapeutic applications. U.S. Prov. App. No. 62/563,511.

5. Tang T, **He L**, Wen H, Zhang T, Wu C, Shi S. Sweet delivery-sugar translators as part of the entry for antisense oligodeoxynucleotides in plant cells. (Chinese Patent, CN102181482 A. Publication date: Sep 14, 2011)

TEACHING & MENTORING

Rotation students

Ziying Liu	8/2019 –10/2019, Rotation Graduate student, TAMHSC Project: Optogenetic control of fibroblast growth factor receptor and determine site-specific signaling
Yuhan Yang	11/2018 – 1/2019, Rotation Graduate student, TAMHSC Project: Anti-CRISPR protein engineering for optogenetic control of CRISPR-Cas9
You Wu	08/2018 – 11/2018, Rotation Graduate student, TAMHSC Project: Optogenetic control of endosomal signaling and trafficking
Can Li	02/2014 – 04/2014, Rotation Graduate student, TAMHSC Project: Chemical genetic screening of novel immunomodulatory agents
Shin Hann	08/2013 – 02/2014, Rotation Graduate student, TAMHSC Project: Screening of novel inhibitors targeting the Ca^{2+}/NFAT pathway

Undergraduates

Leo Park	2021 Summer Research Program at TAMU

Brendan D'Souza	2018	Summer Research Program at TAMU
Dedeepya Puvvada	2013	Summer Research Program at TAMU

INVITED SEMINARS

- The Second Tongji University International Forum for Outstanding Overseas Young Scholars Forum on Frontiers in Medicine and Biosciences, Shanghai, P.R. China, Mar 2017.

INVITED PRESENTATIONS

- "Optogenetic engineering of CRAC channel for precise control of calcium signaling" by Lian He. The Calcium and Cell Function Conference (FASEB), Oct 2021. (Lian He: selected Oral Presenter, winner of Outstanding Presentation Award)

- "Engineering plant-derived LOV2 for optogenetic control of cell signaling and immunotherapy" by Lian He and Yubin Zhou. Virtual International Symposium on Plant Photobiology (ISPP 2021), Jul 2021. (Lian He: selected Oral Presenter for flash talk)

- "Design of Circularly Permuted LOV2 Photoswitch for Optogenetic Control of Cellular Physiology and Cell-Based Therapy" by Lian He and Yubin Zhou. 2021 Synthetic Biology: Engineering, Evolution & Design (SEED), Jun 2021.

- "Engineering of a bona fide light-operated calcium channel" by Lian He and Yubin Zhou. Society of Chinese Bioscientists in America (SCBA) The 34th Annual Symposium, May 2021. (Lian He: winner of The Third-place award)

- "Engineered LOV2 as a modular photoswitch for optogenetic control of calcium signals and cell therapy" by Lian He and Yubin Zhou. 2021 Cold Spring Harbor meeting: Systems Immunology (Virtual), April 2021. (Lian He: selected Oral Presenter)

- "Engineering of a bona fide light-operated calcium channel" by Lian He and Yubin Zhou. Annual Meeting of the Biophysical Society 2021, Feb 2021.

- "Engineering of a bona fide light-operated calcium channel" by Lian He and Yubin Zhou. OPTOGENETICS AUSTRALIA VIRTUAL WORKSHOP 2021, Feb 2021. (Lian He: selected Oral Presenter)

- "Engineered LOV2 as a modular photoswitch for optogenetic control of calcium signals and cell therapy" by Lian He and Yubin Zhou. Keystone Symposia: Emerging Cell Therapies: Realizing the Vision of NextGen Cell Therapeutics. Jan 2021.

- "Engineered LOV2 as a modular domain for optogenetic control of calcium signals and genome engineering" by Lian He and Yubin Zhou. 2019 Optogenetic Technologies and Applications Conference. Dec 2020.

- "Engineering of a bona fide light-operated calcium channel" by Lian He and Yubin Zhou. EMBO Workshop: Chemical Biology Sep 2020.

- "Engineered LOV2 as a modular domain for optogenetic control of calcium signals and genome engineering" by Lian He, Peng Tan and Yubin Zhou. Gordon Research Conference in Organellar Channels & Transporters. West Dover, VT, Aug 2019 (Lian He: selected Oral and Poster Presenter)

- "Photoactivatable control of calcium signaling and optogenetic immunomodulation for tumor killing" by Lian He, Peng Tan and Yubin Zhou. FASEB SRC - Calcium and Cell Function: from mechanisms to disease, Tahoe City, CA, June 2018 (Lian He: winner of Elsevier-sponsored The Best Poster Award)

- "Optogenetic rewiring of calcium signals for transcriptional reprogramming and immunoengineering" by Nguyen Nhung, Lian He and Yubin Zhou. FASEB SRC - Calcium and Cell Function: from mechanisms to disease, Tahoe City, CA, June 2018

- "Photoswitchable visualization and interrogation of inter-organellar membrane contact sites" by Ji Jing, Lian He, and Yubin Zhou. FASEB SRC - Calcium and Cell Function: from mechanisms to disease, Tahoe City, CA, June 2018

- "Protein Engineering approaches to dissect STIM activation" by Guolin Ma, Lian He, Sisi Zheng, Youjun Wang and Yubin Zhou. FASEB SRC - Calcium and Cell Function: from mechanisms to disease, Tahoe City, CA, June 2018

- "Photoactivatable control of immune signaling cascades and optogenetic immunomodulation for tumor killing" by Lian He. Optogenetics and Optical Manipulation 2018, SPIE conference, San Francisco, CA, Jan 2018. (Lian He: selected Oral Presenter)

- "Photoactivatable control of immune signaling cascades and optogenetic immunomodulation for tumor killing" by Lian He, Peng Tan and Yubin Zhou. Cell Symposia: Cancer, Inflammation and Immunity, San Diego, CA, USA June 2017. (Lian He: winner of The Robert and Anabel Bruce Travel Award)

- "Development of optogenetic toolkit for remote control of Ca^{2+} signaling" by Ji Jing, Lian He, Guolin Ma and Yubin Zhou. Gordon Research Conference in Organellar Channels & Transporters. West Dover, VT, Jul-Aug 2017

- "Optical control of inter-membrane communications at nanoscale" by Ji Jing, Lian He, Qian Zhang and Yubin Zhou. The 31th Annual Symposium, Society of Chinese Bioscientists in America, Houston, TX, April 2017

- "Optogenetic immunoengineering to develop improved anti-cancer immunotherapy" by Lian He, Peng Tan, Guolin Ma, Gang Han and Yubin Zhou. The American Association for Cancer Research Annual Meeting, Washington, D.C., Apr 2017

- "Optogenetic dissection of STIM1 conformational switch and oligomerization" by Guolin Ma, Lian He, and Yubin Zhou. The Biophysical Society 61th Annual Meeting, New Orleans, LA, Feb 2017
- "Optogenetic control of membrane tethering and inter-membrane communications" by Ji Jing, Lian He, Qian Zhang and Yubin Zhou. The Biophysical Society 61th Annual Meeting, New Orleans, LA, Feb 2017

- "An optogenetic toolkit for reversible labeling and remote manipulation of cytoskeleton in situ" by Qian Zhang, Lian He, Guolin Ma and Yubin Zhou. The Biophysical Society 61th Annual Meeting, New Orleans, LA, Feb 2017

- "Rewiring calcium signaling for genome editing and transcriptional reprogramming" by Nhung Nguyen, Lian He, Yi Liang, Yun Huang and Yubin Zhou. The Biophysical Society 61th Annual Meeting, New Orleans, LA, Feb 2017

- "Optical control of Ca^{2+}signaling" by Lian He, Guolin Ma & Yubin Zhou. International Conference on Calcium Signaling: from stores to channels, Chapel Hill, NC, Aug 2016

- "Near infrared photoactivatable control of Ca^{2+} signaling and optogenetic immunomodulation" by Lian He, Guolin Ma & Yubin Zhou. Gulf Coast Consortia Symposium on Membrane Biophysics, Houston, TX, May 2016 (Lian He: 2nd Prize Winner of Outstanding Poster Awards)

- "Optogenetic control of Ca^{2+} signaling and immunomodulation" with Lian He and Yubin Zhou. 2016 IBT Research Symposium, April 2016.

- "Optogenetic modulation of calcium influx and T cell activation" by Lian He and Yubin Zhou. Gordon Research Conference in Calcium Signaling, Newry, ME, June 2015

- “Proteomic mapping of ER-PM junctions identifies STIMATE/TMEM110 as a novel regulator of calcium influx”with Ji Jing, Lian He and Yubin Zhou. The 29th Annual Symposium, Society of Chinese Bioscientists in America, Houston, TX, May 2015.

- “Probing the calcium/NFAT signaling pathway by novel chemical and optogenetic tools” with Lian He, Hanna Shin, Guolin Ma, Dedeepya Puvvada, Ling Zhong, Ji Jing, Yubin Zhou. The Biophysical Society 58th Annual Meeting, San Francisco, CA, Feb 2014

- “Targeting the calcium/NFAT signaling pathway as novel immunomodulatory and anti-tumor therapy” with Can Li, Lian He, Hanna Shin, Guolin Ma, Dedeepya Puvvada, Ling Zhong, Ji Jing, Clifford Stephan, Peter Davies, Yubin Zhou. 2014 IBT Research Symposium, April 2014.

- “Probing the Calcium-NFAT Signaling Pathway by Novel Chemical and Optogenetic Tools” Poster Presentation, Annual Student Research Symposium, Texas A&M University, 2013. (Lian He: winner of 3rd Prize Winner of Outstanding Poster Awards)