

Xianzhi Lin, Ph.D.

RNA Biology Group, WHU-Duke Research Institute
Division of Natural and Applied Sciences & Global Health Research Center
Duke Kunshan University
8 Duke Avenue, Kunshan, Jiangsu, China 215316

Email: xianzhi.lin@duke.edu
Office address: WDR3119
Office ☎: +86-0512-36657201
Google Scholar: [Xianzhi Lin](#)

EDUCATION

- 2012 Ph.D. in Microbiology (Mentor: Dr. Ke Lan)
Chinese Academy of Sciences, China
- 2004 B.E. in Biological Engineering
Kunming University of Science and Technology, China

PROFESSIONAL APPOINTMENTS

- 10/2023-present Senior Research Scientist, Global Health Research Center, **Duke Kunshan University, China**
- 01/2023-present Assistant Professor of Biology, Division of Natural and Applied Sciences, **Duke Kunshan University, China**
- 11/2015-12/2021 Postdoc & Project Scientist, Dr. Kate Lawrenson Lab, **Cedars-Sinai Medical Center, USA**
- 01/2013-11/2015 Postdoc, Dr. Xinshu (Grace) Xiao Lab, **University of California, Los Angeles, USA**

PUBLICATIONS ([§]equal contribution, [#]corresponding author)

Peer-Reviewed Articles

28. Nameki RA, Chang H, Yu PH, Abbasi F, **Lin X**, Reddy J, Haro M, Fonseca MAS, Freedman ML, Drapkin R, Corona RI, Lawrenson K[#]. Rewiring of master transcription factor cisomes during high-grade serous ovarian cancer development. *bioRxiv*, 2023.04. 11.536378. *eLife*. *In revision*
27. Brand J, Haro M, **Lin X**, Rimel BJ, McGregor SM, Lawrenson K, Dinh HQ[#]. Fallopian tube single cell analysis reveals myeloid cell alterations in high grade serous ovarian cancer. *iScience*. **2024** Jan 23;27(3):108990.
26. Spisak S, Tisza V, Nuzzo PV, Seo JH, Pataki B, Ribli D, Sztupinszki Z, Bell C, Rohanizadegan M, Stillman DR, Alaiwi SA, Bartels AH, Papp M, Shetty A, Abbasi F, **Lin X**, Lawrenson K, Gayther SA, Pomerantz M, Baca S, Solymosi N, Csabai I, Szallasi Z, Gusev A, Freedman ML[#]. A biallelic multiple nucleotide length polymorphism explains functional causality at the 5p15.33 prostate cancer risk locus. *Nat Commun*. **2023** Aug 23;14(1):5118.
25. Fonseca MAS[§], Haro M[§], Wright KN[§], **Lin X[§]**, Abbasi F, Sun J, Hernandez L, Orr NL, Hong J, Choi-Kuaea Y, Maluf HM, Balzer BL, Fishburn A, Hickey R, Cass I, Goodridge HS, Truong M, Wang Y, Pisarska M, Dinh HQ, EL-Naggar A, Huntsman D, Anglesio MS, Goodman MT, Medeiros F, Siedhoff MT, Lawrenson K[#]. Single cell transcriptomic analysis of endometriosis. *Nat Genet*. **2023** Feb;55(2):255-267.
24. Piras R[§], Ko EY[§], Barrett C, De Simone M, **Lin X**, Broz MT, Tessaro FHG, Castillo-Martin M, Cordon-Cardo C, Goodridge HS, Di Vizio D, Batish M, Lawrenson K, Chen GY, Chan KS, Guarnerio J[#]. circCsnk1g3- and circAnkib1-regulated interferon responses in sarcoma promote tumorigenesis by shaping the immune microenvironment. *Nat Commun*. **2022** Nov 25;13(1):7243.
23. Nameki R[§], Shetty A[§], Dareng E, Tyrer J, **Lin X**, the Ovarian Cancer Association Consortium, Pharoah P, Corona RI, Kar S[#], Lawrenson K[#]. chromMAGMA: regulatory element-centric interrogation of risk variants. *Life Sci Alliance*. **2022** Jul 1;5(10): e202201446.
22. Reddy J[§], Fonseca MAS[§], Corona RI[§], Nameki R, Dezem FS, Klein IA, Chang H, Chaves-Moreira D, Afeyan LK, Malta TM, **Lin X**, Abbasi F, Font-Tello A, Sabedot T, Cejas P, Rodríguez-Malavé N, Seo JH, Lin DC, Matulonis U, Karlan BY, Gayther SA, Pasaniuc B, Gusev A, Noushmehr H, Long H, Freedman ML, Drapkin R, Young RA, Abraham BJ[#], Lawrenson K[#]. Predicting master transcription factors from pan-cancer expression data. *Sci Adv*. **2021** Nov 26; 7(48): eabf6123.

21. **Lin X[#]**, Fonseca MAS, Breunig JJ, Corona RI, Lawrenson K[#]. *In vivo* discovery of RNA proximal proteins via proximity-dependent biotinylation. *RNA Biol.* **2021** Dec;18(12):2203-2217.
20. Dinh HQ[§], **Lin X[§]**, Abbasi F[§], Nameki R, Haro M, Olingy CE, Chang H, Hernandez L, Gayther SA, Wright KN, Aspuria PJ, Karlan BY, Corona RI, Li A, Rimel BJ, Siedhoff M, Medeiros F, Lawrenson K[#]. Single-cell transcriptomics identifies transcriptional networks driving differentiation and tumorigenesis in the human fallopian tube. *Cell Rep.* **2021** Apr 13; 35(2):108978.
19. Corona RI[§], Seo JH[§], **Lin X[§]**, Hazelett DJ, Mhawech-Fauceglia PY, Lester J, Shah SP, Huntsman DG, Gusev A, Karlan BY, Berman BP, Freedman ML[#], Gayther SA[#], Lawrenson K[#]. Non-coding Somatic Mutations Converge on the PAX8 Pathway in Ovarian Cancer. *Nat Commun.* **2020** Apr 24;11(1):2020.
18. Lawrenson K^{§#}, Fonseca MAS[§], Liu AY[§], Dezem FS[§], Lee JM, **Lin X**, Corona RI, Abbasi F, Vavra KC, Dinh HQ, Gill NK, Seo JH, Coetzee S, Lin YG, Pejovic T, Mhawech-Fauceglia P, Rowat AC, Drapkin R, Karlan BY, Hazelett DJ, Freedman ML, Gayther SA[#], Noushmehr H[#]. A Study of High-Grade Serous Ovarian Cancer Origins Implicates the SOX18 Transcription Factor in Tumor Development. *Cell Rep.* **2019** Dec 10; 29(11):3726-3735.e4.
17. **Lin X**, Spindler TJ, Fonseca MAS, Corona RI, Seo JH, Dezem FS, Li L, Lee JM, Long HW, Sellers TA, Karlan BY, Noushmehr H, Freedman ML, Gayther SA, Lawrenson K[#]. Super-Enhancer-Associated LncRNA *UCA1* Interacts Directly with AMOT to Activate YAP Target Genes in Epithelial Ovarian Cancer. *iScience.* **2019** Jul 26;17:242-255.
16. Gusev A^{§, #}, Lawrenson K[§], **Lin X**, Lyra PC Jr., Kar S, Vavra KC, Dezem FS, Fonseca MAS, Lee JM, Pejovic T, Liu G, Ovarian Cancer Association Consortium, Karlan BY, Freedman ML, Noushmehr H, Monteiro AN, Pharoah PDP, Pasaniuc B, Gayther SA. A transcriptome-wide association study of high grade serous epithelial ovarian cancer identifies novel susceptibility genes and splice variants. *Nat Genet.* **2019** May;51(5):815-823.
15. Hsiao YHE, Bahn JH, Yang Y, **Lin X**, Tran S, Yang EW, Quinones-Valdez G, Xiao X[#]. RNA editing in nascent RNA affects pre-mRNA splicing. *Genome Res.* **2018** Jun;28(6):812-823.
14. Prendergast EN, Fonseca MAS, Dezem FS, Lester J, Karlan BY, Noushmehr H, **Lin X[#]**, Lawrenson K[#]. Optimizing exosomal RNA isolation for RNA-Seq analyses of archival sera specimens. *PLoS One.* **2018** May 8;13(5):e0196913.
13. Cass AA, Bahn JH, Lee JH, Greer C, **Lin X**, Kim Y, Hsiao YHE, Xiao X[#]. Global analyses of endonucleolytic cleavage in mammals reveal expanded repertoires of cleavage inducing small RNAs and their targets. *Nucleic Acids Res.* **2016** Apr 20;44(7):3253-63.
12. Hsiao YHE, Bahn JH, **Lin X**, Chan TM, Wang R, Xiao X[#]. Alternative splicing modulated by genetic variants demonstrates accelerated evolution regulated by highly conserved proteins. *Genome Res.* **2016** Apr;26(4):440-50.
11. **Lin X[§]**, Lo HC[§], Wong DT, Xiao X[#]. Noncoding RNAs in human saliva as potential disease biomarkers. *Front Genet.* **2015** May 7;6:175.
10. Bahn JH[§], Ahn J[§], **Lin X[§]**, Zhang Q[§], Lee JH, Civelek M, Xiao X[#]. Genomic Analysis of ADAR1 Binding and its Involvement in Multiple RNA Processing Pathways. *Nat Commun.* **2015** Mar 9;6:6355.
9. Bahn JH[§], Zhang Q[§], Li F, Chan TM, **Lin X**, Kim Y, Wong DT[#], Xiao X[#]. The Landscape of miRNA, piRNA, and Circular RNA in Human Saliva. *Clin Chem.* **2015** Jan; 61(1):221-30.
8. Wang X, He Z, Xia T, Li X, Liang D, **Lin X**, Wen H, Lan K[#]. Latency-associated nuclear antigen of Kaposi sarcoma-associated herpesvirus promotes angiogenesis through targeting notch signaling effector Hey1. *Cancer Res.* **2014** Apr 1;74(7):2026-37.
7. **Lin X**, Li X, Liang D, Lan K[#]. MicroRNAs and Unusual Small RNAs Discovered in Kaposi's Sarcoma-Associated Herpesvirus Virions. *J Virol.* **2012** Dec; 86(23):12717-30.
6. Liang D[§], **Lin X[§]**, Lan K[#]. Looking at Kaposi's Sarcoma-Associated Herpesvirus-Host Interactions from a microRNA Viewpoint. *Front Microbiol.* **2012** Jan 11; 2:271.
5. Liu Y, Sun R, **Lin X**, Liang D, Deng Q, Lan K[#]. Kaposi's Sarcoma-Associated Herpesvirus-Encoded miRNA miR-K12-11 Attenuates Transforming Growth Factor Beta Signaling through Suppression of SMAD5. *J Virol.*

2012 Feb; 86(3):1372-81.

4. Li X, Liang D, **Lin X**, Robertson ES, Lan K[#]. Kaposi's Sarcoma-Associated Herpesvirus-Encoded Latency-Associated Nuclear Antigen Reduces Interleukin-8 Expression in Endothelial Cells and Impairs Neutrophil Chemotaxis by Degrading Nuclear p65. *J Virol.* **2011** Sep; 85(17):8606-15.
3. **Lin X**, Liang D, He Z, Deng Q, Robertson ES, Lan K[#]. miR-K12-7-5p encoded by Kaposi's sarcoma-associated herpesvirus stabilizes the latent state by targeting viral ORF50/RTA. *PLoS One.* **2011** Jan 20; 6 (1): e16224.
2. Liang D, Gao Y, **Lin X**, He Z, Zhao Q, Deng Q, Lan K[#]. A human herpesvirus miRNA attenuates interferon signaling and contributes to maintenance of viral latency by targeting IKK ϵ . *Cell Res.* **2011** May; 21(5):793-806.
1. Gong N, Chen C, Xie L, Chen H, **Lin X**, Zhang R[#]. Characterization of a thermostable alkaline phosphatase from a novel species *Thermus yunnanensis sp. nov.* and investigation of its cobalt activation at high temperature. *Biochim Biophys Acta.* **2005** Jun 30; 1750 (2):103-11.

Book Chapters

2. Hsiao YE, Cass AA, Bahn JH, **Lin X**, Xiao X[#]. Chapter 2. Global Approaches to Alternative Splicing and its Regulation-Recent Advances and Open Questions, In: *Transcriptomics and Gene Regulation*, Jiaqian Wu ed., Springer Press, 37-71, **2016**.
1. **Lin X**[§], Liang D[§], Lan K[#]. Chapter 10. Roles of miRNAs in Cancers Associated with Human Tumor Viruses, In: *Applied RNAi: From Fundamental Research to Therapeutic Applications*, Patrick Arbuthnot and Marc S. Weinberg ed., Caister Academic Press, 179-198, **2014**.

RESEARCH FUNDINGS

11/2023-09/2024	PI	Kunshan Municipal Government Research Fund (KMG), ¥150,000
09/2018-08/2020	Co-I	Leon Fine Translational Award (CSMC), \$100,000
07/2018-06/2019	Co-I	Cancer Biology Program Discovery Fund (CSMC), \$50,000
06/2017-05/2019	Co-I	National Institutes of Health (R21), \$235,553
03/2017-02/2019	PI	Ann & Sol Schreiber Mentored Investigator Award (OCRA), \$75,000

PRESENTATIONS

Invited talks

6. **Lin X**. Dissecting the functional role of regulatory RNAs using RNA-centric methods. Bioinformatics & Functional Genomics Seminars, 2020, Los Angeles, USA.
5. **Lin X** and Lawrenson K. LncRNA Interpreter: A Protein-centric Pipeline for Mechanistic Analysis of LncRNAs. Biomedical & Translational Science Seminar Series, 2019, Los Angeles, USA.
4. **Lin X** and Lawrenson K. LncRNA *UCA1* Modulates Hippo-YAP Signaling in Epithelial Ovarian Cancer. Bioinformatics & Functional Genomics Omics Seminars, 2017, Los Angeles, USA.
3. **Lin X** and Lan K. miRNAs and usRNAs are packaged in KSHV virions. International Student Research Forum, 2012, Omaha, USA.
2. **Lin X** and Lan K. miRNAs and usRNAs are packaged in KSHV virions. The International Congress on Oncogenic Herpesviruses and Associated Diseases, 2012, Philadelphia, USA.
1. **Lin X** and Lan K. miRNAs are packaged in KSHV virions. Institut Pasteur of Shanghai Annual Meeting, 2011, Soochow, China.

Posters

4. **Lin X** and Lawrenson K. Human Poly(A)⁺ RNA 3' Proximitome Revealed by RiboPro. 84th Cold Spring Harbor Laboratory Symposium on Quantitative Biology, 2019, New York, USA.
3. **Lin X**, Lawrenson K. Super-Enhancer-Associated LncRNA *UCA1* Interacts Directly with AMOT to Activate YAP Target Genes in Epithelial Ovarian Cancer. The Hippo Pathway, Signaling, Cancer, and Beyond-AACR, 2019, San Diego, USA.

2. **Lin X**, Lawrenson K. LncRNA *UCA1* interacts directly with angiotensin to activate Hippo-YAP signaling in epithelial ovarian cancer. AACR Annual Meeting, 2018, Chicago, USA.
1. **Lin X**, Lan K. miR-K12-7-5p encoded by KSHV stabilizes the latent state by targeting viral ORF50/RTA. The 13th International Workshop on KSHV and Related Agents, 2010, Los Angeles, USA.

HONORS & AWARDS

2023	Learning Innovation Fellowship, Duke Kunshan University
2019	Scholar-in-Training Award, AACR
2018	Scholar-in-Training Award, AACR
2017	Ann and Sol Schreiber Mentored Investigator Award, OCRA
2012	Pfizer Award, CAS
2011	Excellent Presentation Award, IPS, CAS
2010	Second Prize in Graduate Research in Progress, IPS, CAS
2008	Merit Student, CAS

TEACHING EXPERIENCE

2023-present	Instructor, Duke Kunshan University, China BIOL 305: Introduction to Biochemistry BIOL 315: Experimental Molecular Biology BIOL 404: Genomics of Adaptation CAPSTONE 495: Signature Work Capstone I CAPSTONE 496: Signature Work Capstone II
2020	Guest lecturer, Cedars-Sinai Medical Center, USA BMS 502: Human Genetics & Genomics
2004-2006	Teacher, Qinglai School, China High School Course: Biology

MENTORING EXPERIENCE

Oncology Fellow	Heidi Chang (CSMC, 2018-2019), Emily Prendergast (CSMC, 2016-2017)
PhD student	Robbin Nameki (CSMC, 2018-2021), He Wang (UCLA, 2014), Lei Bai (IPS, 2010)
Master student	Yisha He (UCLA, 2014)
Undergraduate	Nathaniel Woo (DKU, Class of 2025), Zhamilya Karashukeyeva (DKU, Class of 2024), Rena Wang (UCLA, Class of 2014), Qinglan Zhao (Huazhong Agricultural University, Class of 2009)

ACADEMIC ADVISING EXPERIENCE

Undergraduate	Cyan Campbell, Yimeng Yuan, Kewei Zhang, Yan Zhu (DKU, Class of 2027)
---------------	---

SERVICE

2015-present	<i>Ad Hoc</i> Reviewer for 10 Journals, including <i>RNA Biology</i> , <i>Journal of Medical Virology</i> , <i>Briefings in Bioinformatics</i> , <i>BMC Cancer</i> , <i>Cancers</i> , <i>Frontiers in Genetics</i> , <i>PLoS One</i> etc.
--------------	---

PROFESSIONAL MEMBERSHIP

2023-present	Member (S2210121286M), The Chinese Society of Biochemistry and Molecular Biology
2019-present	Member (1354526), RNA Society
2016-present	Member (374888), American Association for Cancer Research