

SHAOBO (SEBASTIAN) LI, *Ph.D.*

📍 Los Angeles, CA

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EDUCATION

University of Southern California

2018.08 – 2022.05

Doctor of Philosophy in Cancer Biology and Genomics (Bioinformatics)

- Thesis: Perinatal epigenetic and genetic analyses in childhood cancers
- Advisors: Dr Joseph L. Wiemels, Dr Adam de Smith

Fudan University, Shanghai, China

2009.09 – 2014.06

Bachelor of Medicine (Forensic medicine)

- Coursework: Anatomy, Psychiatry, Radiology, Surgery, Internal Medicine, Obstetrics and Gynecology

WORK EXPERIENCE

University of Southern California, Center for Genetic Epidemiology

Los Angeles, CA

Postdoctoral fellow

2022.05 – Present

- Led a meta-analysis project of US National Institutes of Health (NIH) Pregnancy and Childhood Epigenetics (PACE) study about the effects of birth order on perinatal DNA methylation
- Participated in a meta-analysis project of NIH PACE study on the association of C-section and perinatal DNA methylation led by Harvard T.H. Chan School of Public Health
- Led collaborations with European (Danish and Sweden) cohorts on meta-analysis of childhood glioma GWAS studies
- Trained new PhD students and pediatrician research fellows

University of Southern California, Center for Genetic Epidemiology

Los Angeles, CA

Predoctoral fellow, Research Assistant

2019.06 – 2022.05

- Genetic and epigenetic analysis of leukemia, pediatric glioma, and other childhood cancers

University of California, Berkeley, School of Public Health

Berkeley, CA

Research Affiliate

2019.07 – Present

- Genetic association and ancestry analyses for CCLS (California Childhood Leukemia Study)

Zhongshan Hospital

Shanghai, China

Volunteer Clinical Researcher

2014.09 – 2018.06

- Glucose metabolic dysfunction in OSAHS patients and its interference with CPAP (Department of Respiration)
- FENO as a novel respiratory indicator for patients with OSAHS (Department of Respiration)
- Application of CT-based radiomics in predicting portal pressure and patient outcome in portal hypertension (Department of Gastroenterology)

LOFT Education

Online, China

Founder and English Lecturer

2014.06 – 2018.06

- Online English learning platform with originally designed courses in written and oral English

CERTIFICATES

Statistics and R (PH525.1x)

HarvardX, edX

Introduction to Linear Models and Matrix Algebra (PH525.2x)	HarvardX, edX
Statistical Inference and Modeling for High-throughput Experiments (PH525.3x)	HarvardX, edX
High-Dimensional Data Analysis (PH525.4x)	HarvardX, edX
Machine Learning	Stanford Online, Coursera

RELEVANT SKILLS

Data Analysis: Data Cleaning, Visualization, Modelling, Prediction, Machine Learning, Deep Learning, Ancestry Analyses, Survival Analyses

Programming: R, Python, C, Linux/Unix (HPC), JAVA, SAS, STATA, SPSS

Bioinformatics: EWAS, GWAS (SNPTEST, PLINK), WDL, GATK, Singularity

Languages: English, Mandarin, Japanese

PUBLICATIONS

1. Feng Q, Zhou M, Li S, ..., Wiemels JL. Interaction between maternal killer immunoglobulin-like receptors and offspring HLAs and susceptibility of childhood ALL. *Blood Adv.* 2022 May 2: bloodadvances.2021006821. doi: 10.1182/bloodadvances.2021006821
2. Xu K, Li S, ..., Wiemels JL, de Smith AJ. Investigating DNA methylation as a mediator of genetic risk in childhood acute lymphoblastic Leukemia. *Hum Mol Genet.* 2022 Jun 18: ddac137. doi: 10.1093/hmg/ddac137
3. Xu, K., Li, S., Muskens, I. S., ..., Wiemels, J. L., & de Smith, A. J. (2022). Accelerated epigenetic aging in newborns with Down syndrome. *Aging Cell*, 00, e13652. <https://doi.org/10.1111/accel.13652>
4. Shaobo Li, Pagna Sok, ..., Joseph L. Wiemels, Adam J. de Smith; Epigenome-Wide Association Study of Acute Lymphoblastic Leukemia in Children with Down Syndrome. *Blood* 2021; 138 (Supplement 1): 214. doi: <https://doi.org/10.1182/blood-2021-151454>
5. Shaobo Li, Xiaowu Gai, Swe Swe Myint, ..., Kyle M Walsh, Joseph L Wiemels, Mitochondrial 1555 G>A variant as a potential risk factor for childhood glioblastoma, *Neuro-Oncology Advances*, 2022, vdac045, <https://doi.org/10.1093/noajnl/vdac045>
6. Gallant RE, Arroyo K, Bracci PM, Li S, Metayer C, ..., de Smith AJ, Wiemels JL. Clinical characteristics of cytomegalovirus-positive pediatric acute lymphoblastic leukemia at diagnosis. *Am J Hematol.* 2022 Mar 14. doi: 10.1002/ajh.26528
7. Jeon, S., de Smith, A.J., Li, S. et al. Genome-wide trans-ethnic meta-analysis identifies novel susceptibility loci for childhood acute lymphoblastic leukemia. *Leukemia* (2021). <https://doi.org/10.1038/s41375-021-01465-1>
8. Martirosian V, ..., Li S, ..., Neman J. Medulloblastoma uses GABA transaminase to survive in the cerebrospinal fluid microenvironment and promote leptomeningeal dissemination. *Cell Rep.* 2021 Jun 29;35(13):109302. doi: 10.1016/j.celrep.2021.109302
9. Xu K, Li S, ..., Wiemels JL, de Smith AJ. Epigenetic biomarkers of prenatal tobacco smoke exposure are associated with gene deletions in childhood acute lymphoblastic leukemia. *Cancer Epidemiol Biomarkers Prev.* 2021 May 21: cebp.0009.2021. doi: 10.1158/1055-9965.EPI-21-0009.

10. Muskens, I. S., **Li, S.**, ..., de Smith, A. J. (2021). The genome-wide impact of trisomy 21 on DNA methylation and its implications for hematopoiesis. *Nature Communications*.
<https://doi.org/10.1038/s41467-021-21064-z>.
11. Shen Q, Zhou Z, Liu Z, Hu S, Lin Z, **Li S**, Li S, ... , Yu W. Clinical and Pathological Features of Prostatic Stromal Tumor of Uncertain Malignant Potential: A Retrospective Study of 23 Chinese Cases. *Urol Int*. 2021;105(3-4):206-214. doi: 10.1159/000508763
12. Meng Y, ..., **Li S**, ..., Jin J. The inflammation patterns of different inflammatory cells in histological structures of hyperplasic prostatic tissues. *Transl Androl Urol*. 2020 Aug;9(4):1639-1649. doi: 10.21037/tau-20-448
13. Liu, Z., ..., **Li, S.**, ..., Yu, W., & Jin, J. (2020). Expression and prognostic value of PD-L1 in non-schistosoma-associated urinary bladder squamous cell carcinoma. *Translational andrology and urology*, 9(2), 428–436. <https://doi.org/10.21037/tau.2020.02.12>
14. Tseng, Y., Ma, L., **Li, S.**, ..., Chen, S. (2020). Application of CT-based radiomics in predicting portal pressure and patient outcome in portal hypertension. *European Journal of Radiology*, 0(0), 108927. <https://doi.org/10.1016/j.ejrad.2020.108927>
15. Liu Z, Meng Y, **Li S**, Yu W, Jin J. Perioperative recovery in different urinary reconstruction approaches of radical cystectomy: Are the advantages of laparoscopy consistent? *J Minim Access Surg*. 2020 Oct-Dec;16(4):390-398. doi: 10.4103/jmas.JMAS_227_19
16. Liu Z, ..., **Li S**, ..., Jin J. Metabolic syndrome is associated with improved cancer-specific survival in patients with localized clear cell renal cell carcinoma. *Transl Androl Urol*. 2019 Oct;8(5):507-518. doi: 10.21037/tau.2019.10.04
17. Liu Z, Huang H, **Li S**, ..., Xing J. The prognostic value of preoperative serum albumin-globulin ratio for high-grade bladder urothelial carcinoma treated with radical cystectomy: A propensity score-matched analysis. *J Cancer Res Ther*. 2017;13(5):837-843. doi: 10.4103/jcrt.JCRT_237_17
18. Sun HT, Wen X, Han T, Liu ZH, **Li SB**, Wang JG, Liu XP. Expression of CPEB4 in invasive ductal breast carcinoma and its prognostic significance. *Onco Targets Ther*. 2015 Nov 26;8:3499-506. doi: 10.2147/OTT.S87587

OTHER SKILLS

Digital multimedia production: Proficient in graphic and video productions using Adobe Suite (Photoshop, Illustrator, Lightroom, After Effect), and Apple Final Cut Pro.

- Producer of USC Keck School of Medicine Virtual Commencement Videos (2020, 2021)
- First Prize in Keck School of Medicine Research Video Competition (2020)
- First Prize of Cambridge Business English (China) video competition (2012)
- First Prize of U21 United Nations Millennium Development Goals (UNMDG) Video Competition (2012)