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

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EDUCATION

University of Southern California, Keck School of Medicine 2018.08 – 2022.05

PhD in Cancer Biology and Genomics (Bioinformatics)

- Dissertation: Perinatal epigenetic and genetic analyses in childhood cancers

Fudan University, Shanghai Medical College 2009.09 – 2014.06

Bachelor of Medicine, Clinical Medicine (Forensic medicine)

- Thesis: Expression of CPEB4 in invasive ductal breast carcinoma and its prognostic significance

CERTIFICATES

HarvardX	High-Dimensional Data Analysis	2017.05
HarvardX	Statistical Inference and Modeling for High-throughput Experiments	2017.08
StanfordOnline	Machine Learning	2021.10

WORK EXPERIENCE

University of Southern California, Keck School of Medicine **Los Angeles, CA**

Postdoctoral fellow *2022.05 – Present*

- Adopted machine learning and deep learning methods to predict childhood leukemia, and eye diseases with DNA methylation data
- Designed pipelines for germline and somatic variant discovery of WGS and WES data
- Led an NIH 12-country-cohort EWAS project studying birth order and perinatal DNA methylation
- Led a multi-cohort GWAS project on childhood glioma
- 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*

- Conducted high-throughput association models (GWAS, EWAS) to investigate the associations between neonatal (epi-)genetic changes and disease risks
- Conducted ancestry analysis to investigate contribution of European ancestry to Latino population disease risks

University of California, Berkeley, School of Public Health **Remote**

Research Affiliate *2019.07 – Present*

- Conducted childhood leukemia GWAS analyses; pesticide exposure EWAS analysis
- Assessed telomere length and aging changes using DNA methylation data in children with childhood leukemia.

Zhongshan Hospital **Shanghai, China**

Volunteer Clinical Researcher *2014.09 – 2018.06*

- Applied machine learning methods to predict portal pressure and patient outcome from CT-based radiomics

RELEVANT SKILLS

Data Analysis: Data Cleaning, Visualization, Modelling, Prediction, Machine Learning, Deep Learning, Statistical genetics, Ancestry Analyses, Survival Analyses
Programming: R, Python, Linux/Unix (HPC), SQLITE, C, JAVA, SAS, STATA, SPSS
Bioinformatics: EWAS, GWAS (SNPTEST, PLINK), GATK, Dock/Singularity
Languages: English, Mandarin, Japanese

PUBLICATIONS

21 peer reviewed publications (4 first author, 1 first author under review, 2 first author in submission), full list available on ORCID https://orcid.org/0000-0002-0544-5338

1. Li S, Chiang CWK, Myint SS, Arroyo K, Chan TF, Morimoto L, et al. Localized variation in ancestral admixture identifies pilocytic astrocytoma risk loci among Latino children. Kutalik Z, editor. PLoS Genet. 2022 Sep 7;18(9):e1010388.
2. Li S, Sok P, Xu K, Muskens IS, Elliott N, Myint SS, et al. Epigenome-Wide Association Study of Acute Lymphoblastic Leukemia in Children with Down Syndrome. Blood. 2021 Nov 5;138(Supplement 1):214–214.
3. Li S, Gai X, Myint SS, Arroyo K, Morimoto L, Metayer C, et al. Mitochondrial 1555 G>A variant as a potential risk factor for childhood glioblastoma. Neuro-Oncology Advances. 2022 Jan 1;4(1):vdac045.
4. Tseng Y, Ma L, Li S, Luo T, Luo J, Zhang W, et al. Application of CT-based radiomics in predicting portal pressure and patient outcome in portal hypertension. European Journal of Radiology. 2020 May;126:108927.

OTHER SKILLS

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

- 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)