PERSONAL DETAILS

Name: Shen, Li
Date and place of birth: July 9, 1994, Jiangsu, China
Researcher ID: 0000-0002-1263-2940 (ORCID)
Google scholar:
https://scholar.google.com/citations?user=pyTG14gAAAAJ&hl=en

DEGREES

03/2023	**The Hong Kong Polytechnic University, Hong Kong, China** MSc. (Biomedical Engineering), Department of Biomedical Engineering GPA: 3.30/4.00
07/2016	**Donghua University, Shanghai, China** BEng. (Bioengineering), School of Chemistry and Bioengineering GPA: 3.13/4.00

LANGUAGE SKILLS

Native language: Chinese
Other language(s): English (CEFR level: C1)

CURRENT EMPLOYMENT

08/2023 – present	**University of Helsinki, Finland** FIMM-EMBL rotation student, Institute for Molecular Medicine Finland (FIMM)

PREVIOUS WORK EXPERIENCE

03/2020 – 01/2022	**West China Hospital, Chengdu, China** Project manager, Institute of Systems Genetics
08/2018 – 01/2020	**Rutgers – New Jersey Medical School, Newark, NJ, USA** Research technician, New Jersey Cancer Institute
08/2017 – 07/2018	**Yale University, New Haven, CT, USA** Postgraduate associate, Systems Biology Institute
07/2016 – 07/2017	**Soochow University, Suzhou, China** Research assistant, Center for Systems Biology

RESEARCH OUTPUT

Publication metrics: 29 publications, 9 of which are with first, co-first or correspondence authorship; Total citations: 677 (Google Scholar); H-index: 14 (Google Scholar); Total impact factors: ~200

SELECTED PUBLICATIONS (#: Co-first author; *: Corresponding author)

[1] Knowledge-guided bioinformatics model for identifying autism spectrum disorder diagnostic MicroRNA biomarkers

Shen, L., Lin, Y., Sun, Z., Yuan, X., Chen, L., Shen, B., Dec 2016, In: Scientific Reports. 6:39663.

[2] Altered nitric oxide induced by gut microbiota reveals the connection between central precocious puberty and obesity

Li, Y.[#], **Shen, L.**[#], Huang, C., Li, X., Chen, J., Li, S-C., Shen, B., Feb 2021, In: Clinical and Translational Medicine 11 (2)

[3] Data-driven microbiota biomarker discovery for personalized drug therapy of cardiovascular disease

Shen, L., Shen, K., Bai, J., Wang, J., Singla, RK., Shen, B., Nov 2020, In: Pharmacological Research 161, 105225

[4] Understanding amino acid mutations in hepatitis B virus proteins for rational design of vaccines and drugs

Shen, K.[#], **Shen, L.**[#]**,** Wang, J., Jiang, Z., Shen, B., Jan 2015, In: Advances in Protein Chemistry and Structural Biology 99, 131-153

[5] Establishing and validating an innovative focal adhesion-linked gene signature for enhanced prognostic assessment in endometrial cancer

Yan, C., He, L., Ma, Y., Cheng, J., **Shen, L.**[*]**,** Singla, RK.[*], Zhang, Y.,[*] Accepted in Apr 2024, Reproductive Sciences

AWARDS AND HONOURS

03/2016	AMIA Translational Bioinformatics Student Paper Award (Awarded by the top-tier conference in the field of medical informatics organized by the American Medical Informatics Association)

OTHER KEY ACADEMIC MERITS

Peer reviewer for Evidence-Based Complementary and Alternative Medicine, Cancer Cell International, Reproductive Sciences and Journal of Genetics and Genomics

RESEARCH PROJECTS

[1] Machine learning-based prognosis evaluation of endometrial cancer

Shen, L. & Zhang, Y.

01/01/2022 – 01/08/2023

Aim(s): To identify novel transcriptomic biomarkers for the prognostic evaluation of endometrial cancer.

Achievements: 1) Establishment of a 4-gene signature for prognostic evaluation of endometrial cancer; 2) Identification of the crucial role of FN1 in the development of endometrial cancer.

[2] Computational toolkit development for prediction of cytokine storm

Shen, L. & Shen, B.

01/06/2020 – 01/01/2022

Aim(s): To develop computational tools for prediction of cytokine storm.

Achievements: 1) Development of cytokine storm knowledge base; 2) Linear regression modeling for prediction of cytokine storm based on clinical testing data.

[3] PALME: PAtients Like My gEnome

Wang, L., Aref, D., Rathi, S., **Shen, L.** & Jiang, X.

01/07/2015 – 01/09/2015

Aim(s): To develop a web platform where patients can share their medication information based on their biological and health data.
Achievements: 1) Construction of PALME (PAtients Like My gEnome) web platform that matches patients based on their genome and healthcare profiles.

[4] Computer-aided biomarker discovery for autism spectrum disorder
Shen, L., Lin, Y. & Shen, B.
01/01/2015 – 01/07/2016
Aim(s): To identify microRNA biomarkers for the diagnosis of autism spectrum disorder (ASD).
Achievements: 1) Establishment of ASD-specific microRNA-mRNA interaction network; 2) Identification of 11 microRNA biomarker candidates through microRNA-mRNA interaction network inference.

TEACHING EXPERIENCE

[1] Application of R in bioinformatic analysis (Open course organized by Bioinformatics Society of Sichuan Province)
01/09/2021 – 01/01/2022
Main course content: Introduction to R, Bulk RNA-seq data analysis (DEseq2/edgeR), Single cell sequencing data analysis (Seurat), introduction to data visualization with ggplot2

TECHNICAL SKILLS

Programming languages: Python, R, JavaScript, Linux Shell
Omics data analysis: Bulk transcriptomics analysis (STAR, GATK, DEseq2, edgeR), single-cell transcriptomics analysis (Seurat, scVI, scANVI)
Application development: Django (python), Shiny (R), Vue (JavaScript)
Deep learning framework: Pytorch
Experimental skills: PCR, Western Blot, CRISPR genome editing, mouse anatomy