

# Kunming Shao

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## EDUCATION

Purdue University, West Lafayette, IN  
Major: Biological Engineering / Cellular and Biomolecular Engineering  
Minor: Biotechnology

## PUBLICATIONS

B. Yan, C. Wang, S. Chakravorty, Z. Zhang, S. Kadadi, I. Sirit, **K. Shao**, Y. Hu, S. Sahoo, L. Wang, N. Anderson, ...B. Zhao, M. Kazemian. Single cell transcriptomics reveals determinant of Epstein-Barr virus lytic cycle in lymphoblastoid cells. *Submitted*.

## RESEARCH EXPERIENCE

- **Undergraduate Research Assistant.**

Dr. Majid Kazemian's lab, Department of Biochemistry and computer science.

Dec 2020 - Present

**Host-pathogen interaction in EBV (Epstein Barr virus)-associated cancers.**

I learnt to apply multi-omics and single-cell transcriptome data to investigate EBV and human cancer cell interactions.

Experimental: Drug induction of EBV lytic and latent switch in EBV-infected lymphoblastoid cells.

- **Summer Undergraduate Research Fellowship (SURF) project.**

Dr. Majid Kazemian's lab, Department of Biochemistry and Computer Science.

May 2021 - Aug 2021

**The regulation of lytic reactivation of Epstein Barr virus (EBV) in stomach cancer.**

Drug induction of EBV lytic genes in EBV-infected stomach cancer cells.

- **Purdue University Student Soybean Innovation Competition.**

Purdue University & Indiana Soybean Alliance, IN, USA

August 2019 - May 2020

Our team designed a biodegradable and compostable soy-based smartphone case.

Ranked 4th among all 60 groups; Completion reward with \$500 award.

- **Undergraduate Research Project.**

Department of Agriculture and Biological Engineering

August 2019 - Jan 2020

Contributed to research in collaboration with the HHMI and SEA-Phages Program.

Isolated and DNA prepared undocumented Bacteriophage, Hapyz, for genome sequencing.

Bacteriophage genome annotation.

- **Undergraduate Research Assistant.**

Dr. Zhao-Qing Luo's lab, Department of Biological Sciences.

August 2019 - Jan 2020

**Host-pathogen interaction in Legionnaires' disease.**

Toxicity screening of candidate proteins from legionella bacteria by using yeast.

## **ACTIVITIES**

- President of Purdue University Undergraduate Chinese Association (PUCA)

Dec 2018 - Dec 2019

## **HONORS AND AWARDS**

- Recipient of the 2021-2022 Ladisch ABE Scholarship 2021
- Recipient of the 2020-2021 Alumni & Friends of ABE Scholarship 2020
- Purdue Soybean Innovation Competition Award 2020
- Dean's List and Semester Honors, College of Engineering 2019, 2020, 2021
- Dean's List, College of Science 2018
- Certificate of Excellence for outstanding performance, ENGR 131 2018
- Final design project best poster content, ENGR 131 2018

## **SKILLS**

- Computational:  
Adept working in cluster: Slurm  
Programing Languages: MATLAB, Python, Macro, R, Linux.  
Analysis of RNA-seq; ChIP-seq; Single-cell RNA-seq.
- Biology:  
Adept in molecular clone, gene expression quantification by qRT-PCR, Western blot, Flow cytometry; In vitro cell biology experiments.

## **Personal Website**

- <https://www.kunmingshao.com/>