

Chentao LI

Phone: +86-17300986784 Email: chentao.20@intl.zju.edu.cn/ C.Li-80@sms.ed.ac.uk

No.718 East Haizhou Road, Haining, Zhejiang 314400, China

EDUCATION

Zhejiang University – University of Edinburgh Institute

Haining, Zhejiang, China

International Campus

Sept. 2020 – June 2024 (expected)

ZJU-UoE Dual degree program:

- BSc (Hons) in Integrative Biomedical Sciences (**University of Edinburgh**)
 - **Average Score: 65.1/100 (Merit)**
- BSc in Biomedical Sciences (**Zhejiang University**)
 - **Major GPA: 3.72/4.0 Major Average Score: 83.7/100**
 - **Freshman 3.53/4.0 Sophomore 3.85/4.0**
 - **Overall GPA: 3.6/4.0**

INTERNSHIP and RESEARCH EXPERIENCE

1. iGEM 2022: Assemble T & NK Cells to Reverse Aging Phenotype

2022.1-2022.10

Position: Chief of ZJUintl-China 2022, ZJUintl-China Founder, Principal of Wet Group

Principal Investigators: Prof. **Huang He**, Zhejiang University; Prof. **Chen Ming**, Zhejiang University;
Prof. **Li Xianghua**, Zhejiang University-University of Edinburgh Institute, Zhejiang, China

- **Senolytic CAR-T&NK cells reverse aging phenotype**
 - Designed the project independently and examined the in vitro toxicity of CAR-T&NK cells
 - Assisted in the screening and validation of new cardiac senescence-related targets
- **Inducible switches for CAR-T cells**
 - Designed Caffeine Switch-CAR operating system and tested the sensitivity of the system in vitro
 - Participated in and improved the design of Negative feedback loops
- Act as the advisor of iZJU-China (alias: ZJUintl-China) 2023 and guide their projects

2. Super Engineered Exosome Killers

2022.6-2023.6

Level: Projects selected and designed independently

Mentor: Prof. Huang He, Zhejiang University; Li Xia, Secretary of Prof. Huang He's laboratory group, Zhejiang University, Zhejiang, China

- Designed the project independently and the transfection efficiencies of the engineered exosomes from HEK293T, MSC, and erythrocytes for T cells and NK cells in vitro
- Examined the toxicity of CAR T cells with abundant exosomes
- Examined dual target exosome killer system for direct delivery of apoptotic proteins

3. Explore the physiological mechanism of different effects of old and young donors on hematopoietic stem cell transplantation 2021.4-2022.4

Level: Provincial Science and Technology Innovation Project of Zhejiang University Student Research Training Program

Final grade: Outstanding Provincial Science and Technology Innovation Project

Mentor: **Li Xia**, Secretary of Prof. **Huang He**'s laboratory group, Zhejiang University, Zhejiang, China

- Investigated and collected HSC single-cell sequencing data from young and old donors
- **Publication:** *A Systemic Review of Aging and Inflammation: Molecule, Cellular, Organ, Diseases, Aging Models and Anti-aging Intervention Therapies* and *Genomic comparison of single-cell sequencing data based on young and senescent hematopoietic stem cells*

4. CRISPR/Cas9-Knock GFP into AURKA gene 2021.1-2021.2, 2021.6-2021.9

Level: Undergraduate Winter and Summer Research Program

Instructor: Prof. **Chan Kuan Yoow**, Prof. **Li Xianghua**, Zhejiang University-University of Edinburgh Institute

- Systematically study basic molecular and cellular experiments
- Designed CRISPR/Cas9-Knock GFP into the AURKA system and tested its efficiency in vitro

5. Cancer Biology and Cancer Immunotherapies seminar 2022.1-2022.2

Level: Online Research Seminar provided by Path Academics

Mentor: Prof. **Sophia Koutsogiannaki**, Harvard Medical School, Harvard University, Boston, USA

- Content on Cancer Biology, Immunology, and Immunotherapies
- **Publication:** *CAR-T Immunotherapy to Beat Solid Tumors: From Challenges to Improvements*

6. Explore the control of the germinal center by the tumor suppressor SETD1B 2022.2-2022.5

Advisor: Prof. **James Qun Wang**, Zhejiang University-University of Edinburgh Institute, Zhejiang, China

- Designed SETD1B CRISPR/Cas9 Knock-out systems and finish the experimental design

PUBLICATIONS

Chentao LI, the first author, **Synthetic Immunology: a “Super Buff” for Immunotherapy**. 2022 (Manuscript in prep.)

Chentao LI, the first author, **A Systemic Review of Aging and Inflammation: Molecule, Cellular, Organ, Diseases, Aging Models and Anti-aging Intervention Therapies**. 2022 (Manuscript in prep.)

Chentao LI, the second author, **Genomic comparison of single-cell sequencing data based on young and senescent hematopoietic stem cells**. 2022 (Manuscript in prep.)

Chentao LI, the first author, **CAR-T Immunotherapy to Beat Solid Tumors: From Challenges to Improvements**. BEHDP, 2022 [Accepted]

SKILLS

Languages: English (fluent); Chinese (native)

Experimental technologies: Plasmid construction, Cell culture and transfection (PEI, Lentivirus, Electroporation), FACs, CRISPR/Cas9 gene editing technology, and Single-cell transcriptome sequencing data analysis (Python with Scanpy and R with Seurat).

SPECIALIZED COURSES (ZJU/UoE grades)

Freshman: Integrative Biomedical Sciences I (79/59), Introduction to Cellular and Molecular Biology I (81/63), Introduction to Biomedical Informatics I (Python) (83/63), Advanced Mathematics (Calculus, Statistics) (Pass), College Chemistry (Pass)

Sophomore: Microorganisms and Immunity II (95/85), Building an Organism II (Developmental biology) (90/70), Biomedical Genetics II (87/69), Applied Biomedical Sciences II (Pharmacology, Pathology, Data analysis) (83/63), Integrated Function of Body Systems II (80/60)

Junior: Integrative Biomedical Sciences III, Human Disease: From Research to Clinic III A & B, Principle of Neuroscience III, Molecular Biology and Epigenetics III

HONORS and AWARDS

Student Innovation and Entrepreneurship Award of Zhejiang University in 2021

Excellent Social Practice Team of Zhejiang University in 2021

The Third Prize of the First Excellent Summary Plan for College Students of Zhejiang University International Campus

2022 American Collegiate Mathematical Modelling Competition S Prize

2021-2022 Zhejiang University Outstanding Provincial SRTP Project

SOCIAL PRACTICES and ACTIVITY EXPERIENCES

2022 Zhejiang University International Campus - The founder of the social practice team - Exploring the entrepreneurial path of biomedical scientists

2022 Zhejiang University International Campus - The member of the social practice team - Summer teaching Hebei, China

2022 Participated in the experiment (i.e., work structure experience sampling study) conducted by Dr. Yeun Joon Kim at Cambridge Judge Business School

2021 Zhejiang University International Campus – The leader of the social practice team - Anguo "City of Traditional Chinese Medicine" research

2020-2022 Journalist of "The New Enlightenment" and completed several interviews and reports

2020-2022 Zhejiang University International Campus Labor education activities: canteen meal, vegetable plant, etc.

2021 Zhejiang University-University of Edinburgh Institute – Academic Parents in Academic Family

2021 Zhejiang University-University of Edinburgh Institute - President Group of Biomedical Sciences Class 2102

2020-2021 Zhejiang University International Campus - The member of the social practice team - Return visit to Alma mater in Hebei

2021 Zhejiang University-University of Edinburgh Institute - Diabetes prevention public welfare campaign

2020-2021 "The New Enlightenment" - Founder of the activity “Warm Winter Call for Papers” and won second place

For more information about my mentors, please visit

Huang He: <https://person.zju.edu.cn/en/huanghe>

Chen Ming: <https://person.zju.edu.cn/en/0005111>

Li Xianghua: https://person.zju.edu.cn/en/Genetic_Systems_LiLab

Sophia Koutsogiannaki: <https://connects.catalyst.harvard.edu/Profiles/display/Person/147672>

Chan Kuan Yoow: <https://person.zju.edu.cn/en/H118031>