Yu-hao He

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Education

Feb 2023 – Present
Ph.D. in Cancer Immunology
Charité – Universitätsmedizin Berlin, Berlin, Germany
Supervisor: PD Dr. med. Benjamin Ostendorf, PhD
FUNDING: Charité – BSIO Structured Doctoral Program Fellowship (two positions/year)

Sept 2018 – Oct 2020
M.Sc. in Biology (GPA 3.95/4.00; Rank 1/39)
Southern University of Science and Technology, Shenzhen, China
Supervisor: Prof. Wei Chen, PhD; Prof. Liang Fang, PhD

Sept 2014 – Jun 2018
B.Sc. in Biological Sciences (GPA 3.62/4.00)
Southern University of Science and Technology, Shenzhen, China
Supervisor: Prof. Wei Chen, PhD; Prof. Wei Huang, PhD

Jul – Aug 2017
Vancouver Summer Program
Faculty of Medicine, University of British Columbia, Vancouver, Canada
International academic exchange

Research Experience

2023 – Present
Deciphering the role of endothelial cells in orchestrating anti-tumor immunity
Charité — Universitätsmedizin Berlin
- Elucidating how tumor endothelial cells regulate anti-tumor immunity and promote resistance to immunotherapy.
- Leveraging multi-omics datasets together with in vitro and in vivo models and functional genomics (CRISPR-based perturbations) to discover and validate key regulators of tumor–immune interactions.

2020 – 2023
Pooled CRISPR screening identifies P-bodies as repressors of cancer epithelial–mesenchymal transition
Southern University of Science and Technology
- Performed genome-wide CRISPR-Cas9 knockout screens and identified regulators of epithelial–mesenchymal transition (EMT) in cancer metastasis.
- Independently performed live-cell fluorescence imaging, revealing that P-body components function as phase-separation regulators that control P-body assembly and thereby modulate cancer cell migration, linking RNA granule dynamics to tumor progression.
- *Key output:* Co-author (second author), *Cancer Research*, 2024.

2018 – 2021
CRISPR-iPAS: a novel dCAS13-based method for alternative polyadenylation interference
Southern University of Science and Technology
- Developed CRISPR-iPAS, a dCas13-based tool for interfering with alternative polyadenylation (APA) and perturbing polyA site usage.
- Applied CRISPR-iPAS to dissect 3′UTR regulatory mechanisms and elucidate functional consequences of APA.
- *Key output:* Co-author (second author), *Nucleic Acids Research*, 2022.

2016 – 2020
Regulation of alternative polyadenylation across mammalian tissues
Southern University of Science and Technology
- Mapped cis- and trans-regulatory elements of alternative polyadenylation (APA) across mammalian tissues through large-scale transcriptomic analyses and in vitro experiment.
- Identified tissue-specific APA regulators, providing insights into post-transcriptional gene regulation.
- *Key output:* Co-author, *Molecular Systems Biology*, 2020.

2014 – 2016

Quantitative analysis of mechanosensitive ion channel *Piezo1* under shear stress

Southern University of Science and Technology

- Served as microfluidics team lead; designed and co-developed microfluidic chips in collaboration with Biomedical Engineering and Materials Science departments, enabling quantitative analysis of Piezo1 responses to shear stress.
- *Key output:* Team awarded Silver Medal at the iGEM Boston Jamboree (2016), recognizing interdisciplinary innovation in synthetic and quantitative biology.

Awards & Scholarships

2023 – 2027

DAAD Graduate School Scholarship Programme (DAAD-GSSP)

Deutscher Akademischer Austauschdienst (German Academic Exchange Service)

Prestigious international doctoral scholarship providing full financial support.

2023 – 2026

Charité – BSIO Structured Doctoral Program Fellowship

Berlin School of Integrative Oncology, Charité — Universitätsmedizin Berlin

Doctoral fellowship within a structured PhD program; two fellows per year.

2020

Graduate Academic Excellence Award

Southern University of Science and Technology, China

Merit-based faculty award for academic excellence.

2019 – 2020

University Graduate Scholarship (Full Funding)

Southern University of Science and Technology, China

University-level merit-based scholarship covering full tuition and stipend.

2017

SUSTech Global Mobility Scholarship

Southern University of Science and Technology, China

Full scholarship for international exchange; funded summer study at the University of British Columbia.

2016

Outstanding Oral Presentation Awards

NCKU, Tainan; Sun Yat-sen University, Guangzhou

Asia-Pacific iGEM Conference; China iGEMer Community Conference

Awarded for outstanding scientific communication and team presentation at regional iGEM conferences.

2015 – 2018

Undergraduate Merit Scholarship (Full Funding)

Southern University of Science and Technology, China

University-level merit-based scholarship covering tuition and living expenses.

Competitions

2016

International Genetically Engineered Machine (iGEM) Competition

MIT, Boston, USA

Microfluidics Team Leader

Awarded Silver Medal in Boston Giant Jamboree 2016.

Conferences & Presentations

75th Lindau Nobel Laureate Meeting (Selected Young Scientist, 2026); BSIO Retreat, Berlin (Selected Oral Presentation, 2025); Young Scientist Cancer Congress, Berlin (Poster Presentation, 2025); BSIO Retreat, Berlin (Poster Presentation, 2024); International PhD Student Cancer Conference, Berlin (Poster Presentation, 2024); BSIO Retreat, Berlin (Poster Presentation, 2023); Asia-Pacific iGEM Conference, Tainan (Selected Oral Presentation, 2016); China iGEMer Community Conference, Guangzhou (Selected Oral Presentation, 2016).

Publications (Full List with JIF 2024, Clarivate)

Original Articles

2024 Fang L#, Zhang L#, Wang M#, **He Y**, Yang J, Huang Z, Tan Y, Fang K, Li J, Sun Z, Li Y, Tang Y, Liang W, Cui H, Zhu Q, Wu Z, Li Y, Hu Y, Chen W* Pooled CRISPR screening identifies P-bodies as repressors of cancer epithelial–mesenchymal transition. ***Cancer Research***. 84(5):659–674. doi:10.1158/0008-5472.CAN-23-1693. **JIF 2024: 16.6**

2022 Tian S#, Zhang B#, **He Y**, Yi H, Li Y, Zou X, Zhao Y, Fang L, Hu Y, Chen W* CRISPR-iPAS: a novel dCas13-based method for alternative polyadenylation interference. ***Nucleic Acids Research***. 50(21):12356–12368. doi:10.1093/nar/gkac108. **JIF 2024: 13.1**

2022 Wang W#, Huang H#, Jiang H, Tian C, Tang Y, Gan D, Wen X, Song Z, **He Y**, Ou X, Fang L* A cross-tissue investigation of molecular targets and physiological functions of Nsun6 using knockout mouse. ***International Journal of Molecular Sciences***. 23(12):6584. doi:10.3390/ijms23126584. **JIF 2024: 4.9**

2020 Li Y#, Schaefke B#, Zou X, Zhang M, Heyd F, Sun W, Zhang B, Li G, Liang W, **He Y**, Zhou J, Li Y, Fang L, Hu Y, Chen W* Pan-tissue analysis of allelic alternative polyadenylation suggests widespread functional regulation. ***Molecular Systems Biology***. 16(4):e9367. doi:10.15252/msb.20199367. **JIF 2024: 7.7**

Reviews, chapters, and comments

2022 Yi H#, **He Y#**, Zhu Q, Fang L* RUNX proteins as epigenetic modulators in cancer. ***Cells***. 11(22):3687. doi:10.3390/cells11223687. **JIF 2024: 5.2** (Co-first author)

Notes: 2024 Journal Impact Factors (Clarivate, JCR 2025 release). **Bold** = author position; # = equal contribution; * = corresponding author;

Yu-hao He
Berlin, April 6, 2026