
Chun-Mei Hu, Ph.D. Assistant Research Fellow

Genomics Research Center

Academia Sinica

128 Academia Road, Section 2, Nankang, Taipei 11529, Taiwan

Phone No.: 02- 27871255

Fax No.: 02-27898777

E-mail: CMHU1220@as.edu.tw

Web: <https://www.genomics.sinica.edu.tw/cmhu>

**Education**

- | | |
|-----------|--|
| 1999-2003 | B.S., Department of Life Science, Chung Shan Medical University, Taiwan |
| 2003-2005 | M.S., Graduate Institute of Biochemistry and Molecular Biology, National Taiwan University, College of Medicine, Taiwan |
| 2006-2010 | Ph.D., Graduate Institute of Biochemistry and Molecular Biology, National Taiwan University, College of Medicine, Taiwan |

Research and Professional Positions Held in Chronological Sequence

- | | |
|--------------|---|
| 2010-2012 | Postdoctoral Research Fellow, Graduate Institute of Biochemistry and Molecular Biology, National Yang-Ming University, Taiwan |
| 2012-2013 | Postdoctoral Research Fellow, Department of Biological Chemistry, School of Medicine, University of California, Irvine, USA |
| 2013-2014 | Postdoctoral Research Fellow, Genomics Research Center, Academia Sinica, Taiwan |
| 2014-2019 | Assistant Research Specialist, Genomics Research Center, Academia Sinica, Taiwan |
| 2016-present | Adjunct Assistant Professor, Graduate Institute of Biomedical Sciences, China Medical University, Taiwan |
| 2019-present | Assistant Research Fellow, Genomics Research Center, Academia Sinica |
| 2021-present | Adjunct Assistant Professor, Graduate Institute of Biochemistry and Molecular Biology, National Yang-Ming Chiao Tung University, Taiwan |

Research Interests

- **Translational Cancer Biology & TME:** Elucidating the molecular drivers of pancreatic ductal adenocarcinoma (PDAC) initiation, focusing on glycosylation (O-GlcNAcylation & N-glycan remodeling) and critical signaling networks (IL-17B/IL-17RB axis, Activin A).
- **AI-Driven Metabolomics & Early Diagnostics:** Pioneering non-invasive, high-resolution ¹H NMR-based multimodal machine learning platforms (e.g., PanMETAI) to translate untargeted metabolic profiling into high-precision clinical screening tools.
- **Pathogenic Metabolism & The Gut-Liver Axis:** Pathogenic Metabolism & The Gut-Liver Axis: Expanding metabolomic frameworks beyond oncology to investigate systemic metabolic disorders, such as pediatric steatotic liver disease (SLD). Utilizing urine metabolomics, this

research establishes microbiota-derived metabolic alterations not merely as diagnostic biomarkers, but as active pathogenic drivers of hepatic lipid dysregulation.

- **Targeted Therapeutics for Pancreatic Cancer:** Designing novel interventions to disrupt tumor microenvironment (TME) communication (e.g., ACK900 for N-glycan biosynthesis inhibition). Advancing precision medicine by targeting the IL-17RB/MLK4 interaction through structure-homology-designed cyclic peptides, high-throughput screening (HTS) of small-molecule inhibitors, and AI-driven compound optimization.

Major Honors and Awards

2008	Excellence Award The first session of the Merck Award for young biotech
2008	Excellence Award National Taiwan University Graduate Award for outstanding work
2010	Foundation for The Advancement of Outstanding Scholarship travel award for attending Gordon Research Conference meeting “Mechanisms & Models of Cancer at CSHL, New York, USA.
2011	NSC (Taiwan) travel award for attending Keystone Symposia “Genomic Instability and DNA Repair at the Keystone Resort, Keystone, Colorado, USA.
2014	Academia Sinica Postdoctoral Research Fellowship Award, Taiwan.
2019	Juei-Low Sung Foundation Distinguished Thesis Award, Taiwan.
2019	One of the Selected Scientific Research papers, Academia Sinica, Taiwan.
2020	Top Ten Scientific Research Disruptive Innovation Papers Award, Taiwan.
2021	Outstanding Scholar, Department of Biomedical Sciences, Chung Shan Medical University 2021
2022, 2023	One of the Selected Scientific Research papers, Academia Sinica, Taiwan.