



中央研究院
ACADEMIA SINICA

Postdoctoral Fellow (Cheng Lab)

OVERVIEW

[The Cheng lab \(https://thechenglab.com/\)](https://thechenglab.com/) is looking for an enthusiastic and independent Postdoctoral Fellow to join our dynamic and competitive group in human immunology research in the [Institute of Biomedical Science](#) at Academia Sinica, Taiwan. Our research focuses on deep-profiling human virus-specific T cells during viral infection, vaccination, or virus-associated cancer by using highly multiplexed combinatorial peptide-MHC tetramer staining, mass cytometry, single-cell sequencing methods ([Cheng et al., 2019. *Science Immunology*](#); [Cheng et al., 2021. *Immunity*](#)), and high-dimensional analysis ([Newell and Cheng., 2016. *Nature Immunology*](#)). We are interested in dissecting the different arms of human adaptive immune responses, and characterize the functional and cellular heterogeneity of tissue-resident memory T cells or exhausted T cells. We are currently working on chronic hepatitis B infection (HBV), HBV-associated hepatocellular carcinoma and liver disease, SARS-CoV-2 infection and vaccination, human papillomavirus (HPV)-associated cancers.

RESPONSIBILITIES

1. Perform mass cytometry experiment, maintenance, and the preparation of reagents and materials.
2. Use highly multiplexed combinatorial peptide-MHC tetramer staining and single-cell sequencing methods to deep-profile human antigen-specific T cells. Establish Smart-seq3xpress protocol.
3. Perform high-dimensional data analysis and data interpretation.
4. Independently carry out high quality research, support other lab members' projects, write manuscripts, and present findings in international conferences.
5. Train and mentor junior members in the lab. Identify, communicate, and solve scientific problems.

SALARY：薪資擇優，可面議

QUALIFICATIONS

Minimum qualifications:

- Proactive and passionate in biomedical research and immunology
- Holds MD, PhD, MD/PhD, or equivalent degree in related fields
- Strong experience in flow cytometry, and other experimental tools in the research fields of immunology and molecular and cellular biology
- Experience in cell and tissue culture, and *ex vivo* and *in vitro* experiment
- Great organization and communication (verbal and writing) skills
- Team player with great interpersonal characteristics

Preferred qualifications (candidates who have the following criteria will be considered as favored):

- Experience in handling and processing human clinical samples and primary tissue cells
- Experience in tissue sectioning, imaging and histological staining
- Experience in TCR sequencing and analysis, and/or familiar in R or python

WHY JOIN US

- It's a new lab. You get to set the tone.
- Learning the cutting-edge techniques such as mass cytometry, single-cell sequencing, and analysis.
- We care about your career development and trajectory. We want you to be successful.
- We have ongoing local and international collaborations across the US, UK, Europe, and Asia-Pacific. You get the chance to work with scientists around the world.
- We love to see you bring in new ideas and perspectives. You can write your own grant with the support of PI, and initiate your own independent research project.

OUR CULTURE

- We believe diversity, equity and inclusion drive creativity.
- We love teamwork.
- We are committed to build a collegial, pleasant, open, and welcoming working environment.

Interested candidate should send a cover letter and CV to Dr. Yang Cheng at ycheng@ibms.sinica.edu.tw.