# Hsin-Yu Chang

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**PROFILE**

An enthusiastic biocurator with extensive experience in annotating biological data from scientific literature and various databases. An expert in molecular biology, cell biology, and high-throughput experiment design with a PhD in Biological Sciences. A collaborative team player with a strong ability to work effectively within multidisciplinary teams. Experienced in using data wrangling tools, programming languages such as Python and R, and database management systems like MySQL.

**WORK HISTORY**

2012 - 2021 **Scientific Database Curator**

**European Bioinformatics Institute**

Curated biological data for the InterPro protein family database, ensuring accurate classification and annotation of protein sequences. Gained a solid understanding of the FAIR principles. Reviewed literature to extract key information efficiently, assigned Gene Ontology (GO) terms, and ensured accurate data entry of all findings.

2008 - 2012 **Research Associate**

**Institute for Cell & Molecular Biosciences, Newcastle University**

Used *Saccharomyces cerevisiae* as an experimental model to study genes that affect telomere-initiated senescence. This work utilized high-throughput robotic systems and advanced data analysis software.

2006 - 2008 **Research Associate**

**School of Biological and Biomedical Sciences, Durham University**

Used *Arabidopsis thaliana* as an experimental model to study the dynamics of microtubules and associated proteins in plant cells. Captured cell division movies using GFP-tagging and a confocal microscope imaging system. This study generated new insights into the cell cycle and highlighted the genome instabilities caused by microtubule dysfunction.

2000 - 2001 **Research Assistant**

**Institute of Biomedical Sciences, Academia Sinica, Taiwan, ROC**

Cultivated dendritic cells derived from peripheral blood mononuclear cells to explore their usage in immunotherapy for cancers. Utilized flow cytometry for analysing blood cells.

## EDUCATION

2002 - 2006 **PhD in Biological Sciences**

School of Biological and Biomedical Sciences, Durham University
(Overseas Research Students Awards Scheme scholarship holder)
Thesis title: A molecular analysis of the microtubule associated protein MAP65-1

1995 - 1999 **Bachelor of Science in Biological Sciences**

Department of Biology, National Taiwan Normal University, Taipei, Taiwan
(Scholastic average A)

## SKILLS

### Bioinformatics

- MySQL: Experienced in writing SQL scripts to access and update databases.
- Shell: Proficient in using basic Unix commands for manipulating files and directories.
- Python: Completed DataCamp's 'Intermediate Python' course, acquiring essential skills in Python for data manipulation and analysis.
- Data analysis with R: Experienced in writing basic R scripts for plotting and visualizing data. Completed DataCamp's 'Intermediate R' course, gaining proficiency in data manipulation and analysis.

### Leadership and Teamwork

- Worked closely with fellow curators to maintain high-quality entries.
- Collaborated with software developers to refine curation tools and webpages, enhancing user experience and functionality.
- Contributed to a team to ensure timely content delivery, meeting volume targets and scheduled release dates.
- Played a key role in training new curators within the InterPro team.

### Communication

- Demonstrated strong written and editorial skills by authoring scientific articles published in high-impact international journals.
- Authored blog articles to showcase InterPro's features and benefits, effectively promoting its value to a broader audience.
- Responded to user feedback promptly and professionally via email, ensuring a positive user experience.
- Presented the InterPro database to a broader audience through workshops and conferences.

### Other computer skills

- Proficient in image processing and design using Photoshop and Adobe Illustrator.
- Word, Excel, PowerPoint

**Experimental skills**

- Cancer immunology research: Immunol and cytochemical staining of blood cells.
- FACS analysis (Becton-Dickinson FACS Calibur system).
- Plant/yeast cell culture and genetic analysis.
- DNA manipulation (PCR, cloning, purification, etc.).
- Protein expression and purification.
- 3D Images, live cell movies (Zeiss LSM510 and Andor spinning disk confocal system) and FRAP (Fluorescence recovery after photobleaching) analysis.
- Designing experiments using a cell culture pinning Biomatrix BM3-SC robot.
- Designing experiments using a liquid handling culture inoculating Biomek FX robot and a spImager robot.

**Languages**

- Chinese (native Mandarin and Taiwanese speaker)
- English (fluent)

## PUBLICATIONS

https://orcid.org/0000-0001-5577-2356

## LINKEDIN

https://www.linkedin.com/in/hsin-yu-chang-0b6a6453

## SAMPLE BLOG POSTS

https://proteinswebteam.github.io/interpro-blog/2017/09/22/What%27s-ape/

https://interprodb.blogspot.com/2014/05/dionysian-mysteries-aldehyde.html

## ADDITIONAL INFORMATION

**Nationality**

Dual nationality: British and Taiwanese

**Interests**

Passionate about playing classical piano and exploring new destinations through travel

## REFERENCES

Available on request