

Yuan-Chi Chien

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Education

- 2019-2025 **Ph.D.** Botany and Plant Pathology and Interdisciplinary Life Science (PULSe) program, Purdue University
- 2015-2019 **B.S.** Biochemical Science and Technology, National Taiwan University (NTU)

Research experiences

- 2025.6-present **Postdoctoral fellow | Cold Spring Harbor Laboratory | Adviser: Dr. Rob Martienssen**
- Elucidating the machinery of chromatin remodeling by DDM1
- 2019.8-2025.4 **Graduate researcher | Purdue University | Adviser: Dr. Gyeong Mee Yoon**
- Protein-protein interaction identified by proximity labeling-mass spectrometry
 - Identification and characterization of a novel phosphorylation substrate of a kinase using *in vitro* and *in vivo* kinase assays and phospho-proteomics approach
 - Protein stability regulation by proteasome and autophagy pathways
- 2016.6-2019.6 **Undergraduate researcher | NTU, Taiwan | Adviser: Dr. Chun-Neng Wang**
- Development of the tissue culture and *Agrobacterium*-mediated genetic transformation system of an emerging model plant *Titanotrichum oldhamii*
 - Investigation of a microRNA in *Marchantia polymorpha*

Publications

- **Chien Y-C** and Yoon GM. (2025). Phosphorylation at Serine 260 of Toc33 is Essential for Chloroplast Biogenesis. *Science Advances*, 11, eadu4054.
- **Chien Y-C**, Valencia A, Lee HY, Yoon GM, Kim D. (2024). DNA-encoded probe-based assay for profiling plant kinase activities, *PNAS Nexus*, Volume 3, Issue 7, July 2024, pgae281
- **Chien Y-C** and Yoon GM. (2024). Subcellular dynamics of ethylene signaling drive plant plasticity to growth and stress. *BioEssays*, 2400043.
- **Chien Y-C**, Reyes A, Park HL, Xu SL, Yoon GM. (2023). Uncovering the proximal proteome of CTR1 through TurboID-mediated proximity labeling. *Proteomics*, 2300212.
- Park HL, Seo DH, Lee HY, Bakshi A, Park C, **Chien Y-C**, Kieber JJ, Binder BM, Yoon GM. (2023). Ethylene-triggered subcellular trafficking of CTR1 enhances the response to ethylene gas. *Nature Communication* 14, 365.
- Hung YL, Hong SF, Wei WL, Cheng S, Yu JZ, Tjita V, Yong QY, Nishihama R, Kohchi T, Bowman J, **Chien YC**, Chiu YH, Yang HC, Jade Lu MY, Pan ZJ, Wang CN, Lin SS. Dual regulation of

cytochrome P450 gene expression by two distinct small RNAs, a novel tasiRNA and miRNA, in *Marchantia polymorpha*. *Plant Cell Physiol.* (2024) Mar 28:pcae029.

Honors and Awards

2024-2025	Bisland Dissertation Fellowship, stipend and tuition, Purdue University (Total \$65,405)
2024. 3	Purdue University Employee Recognition Award (\$1500)
2022. 5	Purdue Women in Science Program (WISP) 2022 Spring Travel Award (\$500)
2022. 4	Bayer AG and Bayer Crop Science Plant Breeding Travel Award (\$500)
2019-2021	Andrews Fellowship, stipend and tuition, Purdue University (\$56,390/year for 2 years)
2019	College of Life Science Travel Award, National Taiwan University, Taiwan
2018	College Student Overseas Intern Scholarship, Ministry of Education, Taiwan
2017	College Student Research Scholarship, Ministry of Science and Technology

Conference and seminar presentations

2025. 3	Purdue Botany and Plant Pathology final exam seminar speaker
2024. 5	Invited seminar speaker in the Life Science Department, National Taiwan University
2023. 8	American Society of Plant Biologists (ASPB) annual meeting (poster presentation)
2023. 5	Purdue Center for Plant Biology annual retreat (oral presentation)
2023. 4	Purdue Center for Plant Biology trainee Half-baked seminar (oral presentation)
2022. 11	Purdue Botany and Plant Pathology Research Showcase (poster presentation)
2022. 10	Purdue Women in Science Program (WISP) seminar (invited poster presentation)
2022. 7	American Society of Plant Biologists (ASPB) annual meeting (poster presentation)
2022. 5	Purdue Center for Plant Biology annual retreat (poster presentation)
2022. 4	Purdue Center for Plant Biology trainee seminar (oral presentation)
2019. 3	Japan-Taiwan Plant Biology 2019 (poster presentation)

Teaching experiences

2024-2025	New Ph.D. student and undergraduate student mentoring, Purdue University
2024 Summer	Undergraduate summer intern mentoring, Purdue University
2023 Fall	BTNY 110 Introduction of Plant Science laboratory, Purdue University
2022 Summer	Undergraduate summer intern mentoring, Purdue University
2021 Summer	High school student mentoring, Purdue University
2020 Summer	High school student mentoring, Purdue University
2018-2019	Undergraduate student mentoring, NTU

Services

2022-2023	STAR Protocols volunteer reviewer
2022-2023	Midwest Taiwanese Biotechnology Association (MTBA) Program director
2023.9.2	Midwest Taiwanese Biotechnology Association Symposium (MTBS) moderator
2022.9.10	Midwest Taiwanese Biotechnology Association Symposium (MTBS) moderator
2021-2022	Midwest Taiwanese Biotechnology Association (MTBA) Promotion director
2021.9.18	Midwest Taiwanese Biotechnology Association Symposium (MTBS) moderator