

Taiwan

Cheng-Hsun Ho,
Agricultural Biotechnology Research Center (ABRC) of Academia Sinica
zcybele3@gmail.com



Please describe any new experimental resources and/or software tools available to Arabidopsis researchers that have been initiated or funded in your country in 2020 or early 2021

1. Plants of Taiwan (<http://tai2.ntu.edu.tw>)
2. Orchidstra 2.0 - A Transcriptomics Resource for the Orchid Family (<http://orchidstra2.abrc.sinica.edu.tw/orchidstra2/index.php>)
3. Taiwan Biobank (https://www.twbiobank.org.tw/new_web/)
4. Database of Native Plant in Taiwan (<http://www.hast.biodiv.tw/Announce/projectContentE.aspx>)
5. Discover Plants of Taiwan (<http://taiwanplants.ndap.org.tw>)
6. Herbarium of Taiwan Forestry Research Institute (<http://taif.tfri.gov.tw/cht/>) Herbarium School of 7. Forestry and Resource Conservation, National Taiwan University (<http://ntuf.cc.ntu.edu.tw>)
7. Taiwan Rice Insertional Mutants Database

Please provide a paragraph describing the general impact of the COVID19 pandemic on the scientific community in your country

Even Taiwan was in 2020 and is still one of the safest places in the world in 2021 from COVID19 pandemic (only ~a thousand of confirmed Covid-19 cases), the biggest impact of COVID19 in the year 2020 and 2021 is it is still too risk to travel around the world. Thus, the way via face-to-face to exchange the ideas and up-to-date scientific discoveries to the international scientific community is still not available. Moreover, the number of international researchers and speakers be invited to Taiwan for their researches and seminars, respectively, have been largely reduced. However, the people and research community in Taiwan are keeping their promise to help in all and many different ways.

Planned events for 2021 and 2022

1. International Conference on the History of the Five Dynasties Period
Website: <https://www1.ihp.sinica.edu.tw/Bulletin/Events/1743/Detail>

Selected General Publications

1. Chen FY, Jung HW, Tsuei CY, Liao JC. Converting Escherichia coli to a Synthetic Methylo-troph Growing Solely on Methanol. Cell. 2020 Aug 20;182(4):933-946.e14. doi: 10.1016/j.cell.2020.07.010. Epub 2020 Aug 10. PMID: 32780992.

"a combination of basic research and applied research at a high level" and achieving "a world-leading breakthrough research in the field of bio-energy"

2. Chen, YH., Huang, TY., Lin, YT. *et al.* VPS34 K29/K48 branched ubiquitination governed by UBE3C and TRABID regulates autophagy, proteostasis and liver metabolism. *Nat Commun* 12, 1322 (2021). <https://doi.org/10.1038/s41467-021-21715-1>

"This study provides a new insight into the treatment of fatty liver. "

3. Leung, TF., Jiang, D., Wu, MC. *et al.* Isolable dicarbon stabilized by a single phosphine ligand. *Nat. Chem.* 13, 89–93 (2021). <https://doi.org/10.1038/s41557-020-00579-w>

"This finding would generate a new paradigm of chemical reactivity in carbon and silicon group.

Major Funding Sources

1. Ministry of Science and Technology, Taiwan (<https://www.most.gov.tw/?l=en>)
2. Academia Sinica (<https://www.sinica.edu.tw/en>)

