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A super pan-genomic landscape of rice

Revealing why depression compromises antiviral immunity

Arc weakens synapses by modulating PSD phase separation

Female sterility mutation enables mechanized hybrid rice breeding







Research

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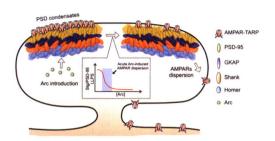


Cover: The phylogenetic tree covering 251 different varieties of rice forms a badge together with the ear of rice consisting of rice grains in different colors. This badge pattern is the epitome of the work that rice super pan-genome from large natural populations captures genetic diversity and reveals genomic complexity. Meanwhile, it can be seen as a tribute to our ancestors who created the iconic terraces (illustrated in paper cut style) in rice farming civilization for their wisdom and diligence. Cover art is contributed by Zisong Ma. See page 878-896 by Lianguang Shang et al. for details.



The lack of self-seed production from the restorer line tfs1 (femalesterile line) enables direct harvesting of hybrid seeds from the field. See page 931-945 by Haoxuan Li et al. for details.

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Novel cleavage sites identified in SARS-CoV-2 spike protein reveal mechanism for cathepsin L-facilitated viral infection and treatment strategies *Cell Discov.* 2022 Jun 6;8(1):53. doi: 10.1038/s41421-022-00419-w.

Dynamic O-GlcNAcylation coordinates ferritinophagy and mitophagy to activate ferroptosis *Cell Discov.* 2022 May 3;8(1):40. doi: 10.1038/s41421-022-00390-6.

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CRISPR signal conductor 2.0 for redirecting cellular information flow *Cell Discov.* 2022 Mar 15;8(1):26. doi: 10.1038/s41421-021-00371-1.

Cross-species metabolomic analysis identifies uridine as a potent regeneration promoting factor *Cell Discov*. 2022 Feb 1;8(1):6. doi: 10.1038/s41421-021-00361-3.

Histone lysine methacrylation is a dynamic post-translational modification regulated by HAT1 and SIRT2 *Cell Discov.* 2021 Dec 28;7(1):122. doi: 10.1038/s41421-021-00344-4.

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