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◇ Plant Stress Science Network Mail Magazine vol.187 ◇

13-February-2026 Volume 187

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1.Foreword

Welcome to the 187-th PSSNet mail magazine! This issue launches on Friday the 13th – a date traditionally tied to bad luck in Western cultures. Hopefully, you aren't too superstitious and can enjoy the magazine as usual! In fact, Wikipedia notes that this "unlucky" day occurs at least once every year, but can strike up to three times annually. For it to happen at all, the month must start on a Sunday.

2. The 41-st IPSR symposium coming soon!

The 41-st IPSR Symposium and the 17-th Symposium on Plant Stress Science will be held at the Kurashiki Geibunkan i-Theater from Monday, March 2nd to Tuesday, March 3rd, 2026. This meeting will provide an opportunity to share the latest research results and knowledge in the field of plant stress science. We look forward to your participation, which is - as usual - free of charge!

Symposium link, registration and program:

<https://www.rib.okayama-u.ac.jp/sympo/2026/>

3. Announcement of IPSR international workshop

The institute will host an international workshop on plant stress and plant-microbe interactions supported by the Joint Use/Research Center. This workshop includes a morning session by students from the IPSR, followed by an afternoon session presented by five Taiwanese researchers. Everyone is cordially invited to participate.

Time & Date: 10:00 AM, March-11, 2026

Venue: Ohara Conference Room, Institute of Plant Science and Resources, Okayama University, Kurashiki Campus

Registration Deadline: Wednesday, March 4

Please register via the link below.

<https://forms.office.com/r/23QVW5th8r>

Poster for download:

https://www.dropbox.com/scl/fi/zhv1kdpilazbw0ajtystx/260203_Mineworkshop_Poster_2026.pdf?rlkey=oj8vjvicrkwk8s964je9y7p42i&dl=0

<Workshop Program>

10:00 Opening Remarks
=== IPSR Students ===
10:05 MD Asif Mahamud (IPSR, Okayama Univ)
Microbial Interactions in the Barley Rhizosphere: Functional Insights Through SynCom Approach
10:25 Muhammad Ammar Latif (IPSR, Okayama Univ)
Unique Genome Structure and a Novel Integrative Prophage in *Methylobacterium aquaticum* 22A
10:45 Arslan Ali (IPSR, Okayama Univ)
Single-cell Genomics Uncovers Extensive Patescibacteria Representation in Agricultural Soil
11:05 Alfino Sebastian (IPSR, Okayama Univ)
Identification and Characterization of the Effector for the Paired NLRs Pit1 and Pit2
11:25 Wanqing Wang (IPSR, Okayama Univ)
Comparative Transcriptomics of Plants and Suspension Cells Reveals New Immune Regulators
11:45 Ryoichiro Fukuhara (IPSR, Okayama Univ)
The Interaction Between Plant-derived Extracellular Vesicles and Phytopathogenic Fungi

=== IPMB, Academia Sinica and National Taiwan University Researchers ===
13:30 Erh-Min Lai (IPMB, Academia Sinica)
Innovative Approaches to Enhance Agrobacterium-mediated Transformation and Genome Editing
14:10 Chih-Hang Wu (IPMB, Academia Sinica)
Fast and Furious: Plant Hypersensitive Cell Death in Action!
14:50 Chin-Min Kimmy Ho (IPMB, Academia Sinica)
Genetic Regulation of Cuticle Formation in Young Leaves and Drought Response
15:30 Break
15:45 Hao-Xun Chang (National Taiwan Univ)
Rhizoctonia Genomics-From Sclerotia Formation to Fungicide Resistance to Innovate Disease Management
16:25 Yuh Tzean (National Taiwan Univ)
Beneath the Surface: Translating Plant Immunity and Biocontrol for Soilborne Pathogen Control
17:05 Closing Remarks

17:30 Social Gathering (Free)
Magosaburo Lounge, Okayama University

4. Editor's article pick: CRISPR/Cas9 reshapes a weed into useful crop
FAST-FORWARD DOMESTICATION catchphrase on the Nature Plants cover page caught my attention this time. While many common crops are planted in spring and harvested in autumn, it leaves many farm fields unused in winter. Here, researchers at Illinois State University edited pennycress genes using CRISPR-Cas9 technology to convert this common weed into a potentially useful winter crop. Naturally, pennycress (*Thlaspi arvense*) grows quickly and it can survive harsh cold. It is nicknamed 'stinkweed' for its distinctive smell and, in addition, pennycress seeds contain erucic acid and sinigrin that can be toxic to animals, including human. Finally, the seeds can persist in soil, contributing to weedy nature of pennycress. By editing five crucial genes, this common weed was converted into a novel cold-resistant crop, marketed as CoverCress, suitable for animal feed. In contrast to pennycress, CoverCress has non-durable seeds and oil production that is similar to canola oil. This example shows that some tough properties found in weedy plants, such as cold resistance, when properly CRISPRed, can be used for creation of profitable crops that might thrive in agricultural fields during off-seasons, such as winter.
For more details:

Barsanti Gautam, Brice A. Jarvis, Maliheh Esfahanian, Michaela McGinn, Dalton Williams, Shengjun Liu, Mary E. Phippen, Nicholas J. Heller, Tad L. Wesley, Winthrop B. Phippen, Tim Ulmasov, M. David Marks, Ratan Chopra & John C. Sedbrook
Creating a new oilseed crop, pennycress, by combining key domestication traits using CRISPR genome editing
Nature Plants volume 12, pages 74-87 (2026)
<https://doi.org/10.1038/s41477-025-02202-7>

5. Recently released publications

Zhou, K., Deng, Y., Zhu, C., Yang, L., Zhang, J., Chen, W., Suzuki, N., Li, G., Wu, M.

Core virome shapes adaptation of a phytopathogenic fungus to climate and cropping patterns.

The ISME journal, wrag001 (2026)

[Doi.org/10.1093/ismejo/wrag001](https://doi.org/10.1093/ismejo/wrag001)

Li, D., Gachie, S.W., Ozawa, S., Scholz, M., Hippler, M., Sakamoto, W.
Chloroplast heat shock protein cpHsc70-1 interacts with thylakoid membrane remodeling protein VIPP1 C-terminal tail and controls VIPP1 oligomer assembly.

PNAS nexus, 5(1):pgaf393 (2026)

[Doi.org/10.1093/pnasnexus/pgaf393](https://doi.org/10.1093/pnasnexus/pgaf393)

Anee, T.I., Sewelam, N.A., Bautista, N.S., Hirayama, T., Suzuki, N.
Roles of ROS and NO in plant responses to individual and combined salt stress and waterlogging.

Antioxidants (Basel, Switzerland), 14(12):10.3390/antiox14121455 (2025)

[Doi.org/10.3390/antiox14121455](https://doi.org/10.3390/antiox14121455)

6. Posting request

We continuously encourage all PSSNet members to contribute information about their latest publications, meetings and seminars, staff, postdoc, and student recruitments, etc. Please send your information to [pssnet-admin@okayama-u.ac.jp] E-mail address. You can also directly publicize your information via mailing list of the PSSNet.

[Plant Stress Science Network Mail Magazine]

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■ WEB <http://www.rib.okayama-u.ac.jp/pssnet/>

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<https://www.rib.okayama-u.ac.jp/pssnet/Registermember.htm>

Please refer to instructions on website

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