

Japan-Taiwan Plant Biology 2019 (JTPB2019)

会 期：2019年3月14日(木)～16日(土)

会 場：名古屋大学東山キャンパス

JTPB2019 準備委員会

[Co-Chairs]

多田 安臣 / Yi-Fang Tsay

[Members]

木下 俊則 / 伊藤 寿朗 / 坂本 亘 / 土屋 雄一郎 / 田畑 亮 /

吉岡 博文 / 中村 匡良 / 金岡 雅浩 / 野元 美佳

Su-Chiung Fang / Ming-Tsair Chan / Yuki Nakamura / Shih-Long Tu /

Jun-Yi Yang / Yee-Yung Charng / Chwan-Yang Hong

JTPB2019 事務局

〒464-8602 名古屋市千種区不老町 名古屋大学遺伝子実験施設内

Tel: 052-789-2951 E-mail: jtpb2019@gmail.com

※ JTPB2019 に関するご連絡およびお問い合わせは、なるべく E-mail でお願いいたします。

参加者・発表者へのご案内

- 1) 第 60 回日本植物生理学会年会の予約参加登録がお済みの方は、JTPB2019 の全てのプログラムに参加可能です。3 月 16 日の Gala dinner への参加は別途参加費が必要ですのでご注意ください。期限までに参加登録、参加費の払い込みをされない場合は当日参加が可能です。
- 2) JTPB2019 の参加登録がお済みの方は、3 月 14 日の第 60 回日本植物生理学会年会の懇親会、および 3 月 16 日の JTPB2019 の Gala dinner への参加費は不要です。期限までに参加登録、参加費の払い込みをされない場合は当日参加が可能です。
- 3) JTPB2019 の参加者には、会場で冊子体のプログラムを配布します。学会通信 135 号の PDF 版は第 60 回日本植物生理学会年会の HP の会員専用ページからダウンロードできます。プログラムや要旨集など年会に必要な情報は 3 月 6 日以降に配布予定のアプリケーションですべてご覧になれます。アプリケーションをご利用にならない方は、要旨集の PDF をダウンロードしてご利用ください。上記のアプリケーションと要旨集の PDF は、参加登録が完了している方のみご利用いただけます。第 60 回日本植物生理学会年会の参加者に対しては配布されません。学会通信 135 号、要旨集、アプリケーションにて、プログラムをご確認ください。
- 4) JTPB2019 の参加者は、保育室、アプリケーションでの要旨の閲覧、無線 LAN の使用の詳細は、第 60 回日本植物生理学会年会に関する情報はアプリケーションや PDF 版をご覧ください。3 月 16 日（土）のクロークは、名古屋大学豊田講堂内に 8:30-17:00 の間、設けます。
- 5) 第 60 回日本植物生理学会年会の 2 日目、3 月 14 日（木）19:00 頃から、ホテルメルパルク名古屋にて懇親会を開催します。名古屋大学からホテルメルパルク名古屋までは、地下鉄で 15 分程度です。
〒461-0004 愛知県名古屋市東区葵 3-16-16 (<https://www.mielparque.jp/nagoya/>)
- 6) JTPB2019 の 3 日目、3 月 16 日（土）18:00 から、サッポロビール名古屋ビール園「浩養園」にて Gala dinner を開催します。当日は、シャトルバスにて名古屋大学から浩養園に向かいますのでご注意下さい。
〒464-0858 愛知県名古屋市千種区千種 2 丁目 24-10 (<http://www.kouyouen.jp/>)
- 7) JTPB2019 へのご連絡やお問い合わせは、E-mail (jtpb2019@gmail.com) にお願います。

3 月 16 日 (土) 9:10 ~ 16:30 豊田講堂

Keynote Symposia

Chairpersons: Tuan-Hua David Ho
Tetsuro Mimura
Chang-Hsien Yang
Toshinori Kinoshita

9:10	KS01	The link between the outer and inner membrane translocons of the chloroplast <u>Hsou-min Li</u> (Institute of Molecular Biology, Academia Sinica, Nankang, Taipei 11529, Taiwan)
9:50	KS02	Sophisticated translation control optimizes a young seedling's skotomorphogenic and photomorphogenic development Guan-Hong Chen, Geng-Jen Jang, <u>Shu-Hsing Wu</u> (Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan)
10:30		Break
10:50	KS03	Regulation of vascular stem cell fates <u>Hiroo Fukuda</u> (Department of Biological Sciences, University of Tokyo, Tokyo, Japan)
11:30	KS04	Long distance peptide signaling critical for maintaining nitrogen homeostasis in plants <u>Yoshikatsu Matsubayashi</u> (Graduate School of Science, Nagoya University, Japan)
12:10		Lunch
13:30	KS05	Hidden Dynamics and Landscape of Plant Signaling Networks <u>Jen Sheen</u> (Department of Molecular Biology and Centre for Computational and Integrative Biology, Massachusetts General Hospital, and Department of Genetics, Harvard Medical School, Boston, USA)
14:10	KS06	Regulation of Translation Dynamics in <i>Arabidopsis</i> under Submergence Hsing-Yi Cho, Mei-Yi Chou, <u>Ming-Che Shih</u> (Agricultural Biotechnology Research Center, Academia Sinica, Taipei, Taiwan)
14:50		Break
15:10	KS07	How Do Plants Sense and Respond to the Continuing Increase in Atmospheric CO ₂ <u>Julian Schroeder</u> ¹ , Jingbo Zhang ¹ , Po-Kai Hsu ¹ , Yohei Takahashi ¹ , Shintaro Munemasa ² , Rainer Waadt ³ , Nuo Wang ⁴ , Yinglong Miao ⁴ , Andrew J. McCammon ⁴ , Felix Hauser ¹ , Wouter-Jan Rappel ⁵ (¹ Division of Biological Sciences, University of California, San Diego, USA, ² Graduate School of Environmental and Life Science, Okayama University, Okayama, Japan, ³ Centre for Organismal Studies, Plant Developmental Biology, Ruprecht-Karls-University of Heidelberg, Heidelberg, Germany, ⁴ Department of Chemistry and Biochemistry, University of California, San Diego, USA, ⁵ Physics Department, University of California, San Diego, USA)
15:50	KS08	Regulatory Gene Network in Drought Stress Responses and Tolerance <u>Kazuo Shinozaki</u> (RIKEN Center for Sustainable Resource Science, Japan)
16:30		Closing

3月15日(金) 9:00～10:50 A会場

Environmental Responses, Abiotic Stresses I

Chairpersons: Takashi Hirayama
Shaw-Jye Wu

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- 9:00 TS01-1 Root-to-shoot communications in drought stress responses and resistance
Fuminori Takahashi (Gene Discovery Research Group, RIKEN Center for Sustainable Resource Science, Japan)
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- 9:20 TS01-2 Small coding genes hidden in plant genomes, encode multiple hormone-like peptides
Kousuke Hanada (Department of Bioscience and Bioinformatics, Kyushu Institute of Technology, Iizuka, Japan)
-
- 9:40 TS01-3 A heat-inducible lipase remodels chloroplastic glycerolipids in *Arabidopsis* leaves under heat stress
Yasuhiro Higashi¹, Yozo Okazaki^{1,2}, Kouji Takano¹, Fumiyoshi Myouga¹, Kazuo Shinozaki¹, Eva Knoch¹, Atsushi Fukushima¹, Kazuki Saito^{1,3} (¹RIKEN Center for Sustainable Resource Science, Japan, ²Graduate School of Bioresources, Mie University, Japan, ³Graduate School of Pharmaceutical Sciences, Chiba University, Japan)
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- 10:00 TS01-4 Functional Study of Basic Helix-Loop-Helix (bHLHs) Transcription Factor Genes in Rice
Hung-Chi Chen¹, Wei-Fu Chien¹, Vicki Hsieh-Feng¹, Hsin-Hsiu Fang¹, Pei-Chun Liao¹, Wan-Hsing Cheng², Men-Chi Chang¹ (¹Department of Agronomy, National Taiwan University, Taipei, Taiwan, ROC, ²Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan, ROC)
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- 10:20 PT-076 Metina: A Transcription factor involved in Iron Deficiency Tolerance in *Arabidopsis thaliana*
Reena Sharma¹, Kuo-Chen Yeh^{1,2,4} (¹Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, Academia Sinica, Taipei 11529, Taiwan, ²Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ³Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 40227, Taiwan, ⁴Biotechnology Center, National Chung Hsing University, Taichung 40227, Taiwan)
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- 10:30 PT-086 A heat stress-induced CCR4-association factor 1, OsCAF1H, participates in heat response in rice seedlings
Chung-An Lu, Wei-Lun Chou, Kai-Yin Liang (National Central University, Taoyuan City 32001, Taiwan)
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- 10:40 1aF09 Long-distance rapid Ca²⁺ and electrical signals in *Mimosa pudica*
Takuma Hagihara¹, Tomohiro Miura², Hiroaki Mano³, Mitsuyasu Hasebe^{3,4}, Masatsugu Toyota² (¹Sci., Univ. Saitama, ²Grad. Sch. Sci., Univ. Saitama, ³Evol. Biol., Natl. Inst. Basic Biol., ⁴Life Sci., Grad. Univ. Advanced Studies, Japan)

3月15日(金) 9:00 ~ 10:50 B会場

Biomembrane, Ion and Solute Transporters

Chairpersons: Toshinori Kinoshita
Tzyy-Jen Chiou

9:00	TS02-1	Role of a citrate transporter in acquisition of aluminum tolerance in barley <u>Jian Feng Ma</u> (Institute of Plant Science and Resources, Okayama University, Japan)
9:20	TS02-2	Regulation of plasma membrane H ⁺ -ATPases in response to environmental signals <u>Koji Takahashi</u> ¹ , Toshinori Kinoshita ^{1,2} (¹ Graduate School of Science, Nagoya University, Japan, ² Institute of Transformative Bio-Molecules (ITbM), Nagoya University, Japan)
9:40	TS02-3	LySWEET transporters regulate source-to-sink sugar allocation in tomato <u>Woei-Jiun Guo</u> (Department of Biotechnology and Bioindustry Sciences, National Cheng Kung University, No.1, University Road, Tainan City, Taiwan)
10:00	TS02-4	The role of novel regulators for the regulation of nitrogen transport <u>Cheng-Hsun Ho</u> (ABRC, Academia Sinica, Taiwan)
10:20	PT-159	Detection of membrane protein-protein interaction in planta based on dual - intein - coupled tripartite split - GFP association <u>Tzu-Yin Liu</u> ^{1,2} , Wen-Chun Chou ² , Wei-Yuan Chen ² , Ching-Yi Chu ² , Chen-Yi Dai ² , Pei-Yu Wu ² (¹ Department of Life Science, National Tsing Hua University, Hsinchu 300, Taiwan, ² Institute of Bioinformatics and Structural Biology, National Tsing Hua University, Hsinchu 300, Taiwan)
10:30	PT-011	A strategy for improving plant nitrogen use efficiency (NUE) by manipulating a transporter involved in nitrate remobilization <u>Kuo-En Chen</u> , Hui-Yu Chen, Shu-Chun Fan, Yi-Fang Tsay (Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan)
10:40	1aC09	High affinity K ⁺ transporter <i>AtHAK5</i> expression is affected by both Internal and external K status <u>Satomi Kanno</u> ^{1,2} , Ludovic Martin ² , Laurent Nussaume ² , Arain Vavasseur ² , Nathalie Leonhardt ² (¹ Fac. of Life and Environ. Sci. Univ. of Tsukuba, ² CEA)

3月15日(金) 9:00 ~ 10:50 F会場

Cell Biology

Chairpersons: Takashi Ueda
Guang-Yuh Jauh

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- 9:00 TS03-1 All roads lead to the vacuole: Endosomal and autophagic trafficking in plants
Erika Isono (Department of Biology, University of Konstanz, Konstanz, Germany)
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- 9:20 TS03-2 Plant autophagy: an intracellular system for bulk and selective self-degradation
Kohki Yoshimoto (Department of Life Sciences, School of Agriculture, Meiji University, Japan)
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- 9:40 TS03-3 Seipin regulates sphingolipid synthesis at the contact site between endoplasmic reticulum and lipid droplets
Yi-Hsiu Lin, Wei-Cheng Su, Martin Pagac, Chao-Wen Wang (Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan)
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- 10:00 TS03-4 The mitosis-to-meiosis transition of pollen mother cells in maize
Chung-Ju Rachel Wang (Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
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- 10:20 PT-010 Tic236 links the chloroplast outer and inner membrane translocons
Yih-Lin Chen¹, Lih-Jen Chen¹, Chiung-Chih Chu¹, Po-Kai Huang², Jie-Ru Wen¹, Hsou-min Li¹ (¹Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan, ²Department of Plant Sciences, University of California, USA)
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- 10:30 PT-019 SUMO Protease Acts on Ribosomal Protein L30 to Regulate Cell Size Checkpoint Control
Yen-Ling Lin^{1,2}, Su-Chiung Fang¹, Chin-Lin Chung¹ (¹Academia Sinica-Biotechnology Center in Southern Taiwan, Tainan 74145, Taiwan, ²Ph.D. Program in Microbial Genomics, National Chung Hsing University, Taichung 402, Taiwan)
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- 10:40 2pH03 Regulatory Mechanisms of Biogenesis of the Oil Body in *Marchantia polymorpha*
Takehiko Kanazawa^{1,2}, Takashi Ueda^{1,2} (¹Cellular Dynamics, NIBB, ²Life Sci., SOKENDAI, Japan)

3月15日(金) 9:00 ~ 10:50 G会場



PCP sponsored symposium

Plant-Microbe Interaction

Chairpersons: Yusuke Saijo
Jun-Yi Yang

Opening remarks Miki Matoba (Oxford University Press)

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|-------|--------|---|
| 9:00 | TS04-1 | Evolutionary dynamics of rice - <i>Magnaporthe</i> interactions
<u>Ryohei Terauchi</u> ^{1,2} (¹ Lab. Crop Evolution, Graduate School of Agriculture, Kyoto University, Muko, Kyoto, Japan, ² Iwate Biotechnology Research Center, Kitakami, Iwate, Japan) |
| 9:20 | TS04-2 | Pattern-triggered immunity under water stress conditions
<u>Yusuke Saijo</u> (Nara Institute of Science and Technology, Grad Sch of Science and Technology, Japan) |
| 9:40 | TS04-3 | <i>Ustilago maydis</i> effectors as probes to explore the plant processes
<u>Lay-Sun Ma</u> (Institute of Plant and Microbial Biology, Academia Sinica, Taiwan) |
| 10:00 | TS04-4 | The Magic Broom of Phytoplasma
<u>Jun-Yi Yang</u> (Institute of Biochemistry, National Chung Hsing University, Taichung, Taiwan) |
| 10:20 | PT-121 | The nuclear carriers, importin $\alpha 1$ and $\alpha 2$, regulate anti-viral defense against Bamboo mosaic virus through RNA silencing pathway in <i>Nicotiana benthamiana</i>
<u>Jiun-Da Wang</u> , Na-Sheng Lin (Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan) |
| 10:30 | PT-127 | Investigation of mechanism of P1 protein of <i>Potyvirus</i> to enhance the HC-Pro-mediated miRNA pathway suppression
<u>Hu-Sin Fen</u> , Shih-Shun Lin (Laboratory of Plant Molecular Biology and Virology, Institute of Biotechnology, National Taiwan University, Taipei 106, Taiwan) |
| 10:40 | 1aL12 | Cell biological analysis of the infection process in symbiotic interactions between orchids and mycorrhizal fungi
Chihiro Miura ¹ , Miharuru Saisho ¹ , Yoshikatsu Sato ² , Takahiro Yagame ³ , Tetsuya Higashiyama ^{2,4} , Masahide Yamato ⁵ , <u>Hironori Kaminaka</u> ¹ (¹ Fac. Agr., Tottori Univ., ² WPI-ITbM, Nagoya Univ., ³ Mizuho Kyo-do Mus., ⁴ Grad. Sch. Sci., Nagoya Univ., ⁵ Fac. Edu., Chiba Univ., Japan) |

3月15日(金) 11:10 ~ 13:00 A会場

Environmental Responses, Abiotic Stresses II

Chairpersons: Taishi Umezawa
Chung-An Lu

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- 11:10 TS05-1 Dissecting the genetic control of natural variation in acquired osmotolerance among *Arabidopsis thaliana* accessions
Teruaki Taji (Department of BioScience, Tokyo University of Agriculture, Japan)
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- 11:30 TS05-2 Expression of a heat shock protein, Oshsp16.9A, enhances thermotolerance of rice seeds
Ching-Hui Yeh (Department of Life Sciences, National Central University, Taoyuan, Taiwan)
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- 11:50 TS05-3 AFL1 and other membrane-associated proteins involved in drought response
Paul E. Verslues (Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan)
-
- 12:10 TS05-4 Convergent sugar and O₂ deficiency signaling regulates underwater germination in rice
Su-May Yu (Institute of Molecular Biology, Academia Sinica, Taipei 115, Taiwan, ROC)
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- 12:30 PT-043 A Novel ABA-induced Protein Phosphatase Regulates Lateral Root Elongation and Diffusion Barriers Formation in Rice
Chun-Hsien Lu^{1,2}, Tuan-Hua David Ho³, Su-May Yu^{1,2} (¹Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan, ²Genome and Systems Biology Degree Program, National Taiwan University and Academia Sinica, Taiwan, ³Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
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- 12:40 PT-009 Scopoletin 8-Hydroxylase is a critical component of the Arabidopsis iron acquisition system
Huei-Hsuan Tsai^{1,2,3}, Jorge Rodríguez-Celma⁴, Ping Lan⁵, Yu-Ching Wu¹, Isabel Cristina Vélez-Bermúdez¹, Wolfgang Schmidt^{1,2,6} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, National Chung Hsing University and Academia Sinica, Taiwan, ³Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 40227, Taiwan, ⁴John Innes Centre and University of East Anglia, Norwich Research Park, Norwich NR4 7UH, UK, ⁵State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, Nanjing, 210008, P.R. China, ⁶Biotechnology Center, National Chung Hsing University, Taichung 40227, Taiwan)
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- 12:50 PF-166 Analysis of relationship between maintenance of heat stress memory and chromosome higher order structure
Yui Fujiwara¹, Takuya Sakamoto¹, Yuki Sakamoto², Nobutoshi Yamaguchi³, Toshiro Ito³, Sachihiko Matsunaga¹ (¹Dept. Applied Bio. Sci., Fac. Sci. Tech., Tokyo Univ. Sci., ²IFC, RIST, Tokyo univ. sci., ³Grad. Sch. Bio. Sci., NAIST, Japan)

3月15日(金) 11:10 ~ 13:00 B会場

Evolution, Taxonomy

Chairpersons: Mitsuyasu Hasebe
Shu-Miaw Chaw

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- 11:10 TS06-1 Evolution of Genetic Toolkits in Land Plants: Implication by Streptophyte Genomes
Tomoaki Nishiyama (Advanced Science Research Center, Kanazawa University, Kanazawa, Japan)
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- 11:30 TS06-2 Evolution of carnivory and movement in flowering plants
Mitsuyasu Hasebe (National Institute for Basic Biology, Okazaki, Japan)
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- 11:50 TS06-3 Stout camphor tree genome fills gaps in understanding of flowering plant evolution
Shu-Miaw Chaw (Biodiversity Research Center, Academia Sinica, Taipei 11529, Taiwan)
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- 12:10 TS06-4 Paper mulberry genomics supports the “out of Taiwan” hypothesis of Austronesian expansion and migration
Kuo-Fang Chung (Research Museum and Herbarium (HAST), Biodiversity Research Center, Academia Sinica, Taiwan)
-
- 12:30 PT-167 Interactions between pine-associated microbiomes and fire regime
Chao-Li Huang¹, Hsin-Ni Liu¹, Tsai-Wen Hsu² (¹Institute of Tropical Plant Sciences, National Cheng Kung University, Tainan 701, Taiwan, ²Endemic Species Research Institute, Nantou County 552, Taiwan)
-
- 12:40 PT-169 The genomic investigation of weedy *Arabidopsis* evolution
Cheng-Ruei Lee, Che-Wei Hsu, Cheng-Yu Lo (National Taiwan University, Taipei 106, Taiwan)
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- 12:50 1aJ09 Comparative analysis of molecular network of root cortex formation in *Arabidopsis* and *Cardamine*
Koichi Toyokura^{1,2,3}, Tatsuaki Goh^{2,4}, Masato Sakane^{2,6}, Yrjo Helariutta^{3,5}, Tatsuo Kakimoto¹, Hiroshi Kudoh⁶, Hidehiro Fukaki² (¹Grad. Sch. Sci., Osaka Univ., ²Grad. Sch. Sci., Kobe Univ., ³Sainsbury Lab., Univ. Cambridge, ⁴Grad. Sch. Sci. Tech., Nara Inst. Sci. Tech., ⁵Inst. Biotech., Univ. Helsinki, ⁶Center Eco. Res., Kyoto Univ., Japan)

3月15日(金) 11:10 ~ 13:00 F会場

Primary and Secondary Metabolism

Chairpersons: Taku Demura
Yuki Nakamura

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- 11:10 TS07-1 Nitrogen starvation responses in Arabidopsis: transcriptional and metabolic regulations
Takatoshi Kiba (Graduate School of Bioagricultural Sciences, Nagoya University, Nagoya, Japan)
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- 11:30 TS07-2 Metabolomics-assisted breeding focused on tomato secondary metabolism
Takayuki Tohge (Nara Institute of Science and Technology, Japan)
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- 11:50 TS07-3 Intersection between inositol phosphate metabolism and phosphate signaling in Arabidopsis
Hui-Fen Kuo¹, Yu-Ying Hsu¹, Wei-Chi Lin¹, Kai-Yu Chen¹, Teun Munnik², Charles A. Brearley³, Tzyy-Jen Chiou¹ (¹Agricultural Biotechnology Research Center, Academia Sinica, Taipei 115, Taiwan, ²Swammerdam Institute for Life Sciences, University of Amsterdam, Science Park 904, 1098XH Amsterdam, The Netherlands, ³School of Biological Sciences, University of East Anglia, Norwich Research Park, Norwich, Norfolk, NR4 7TJ, U.K.)
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- 12:10 TS07-4 An essential methyltransferase trio in phosphatidylcholine biosynthesis
Yuki Nakamura, Yu-chi Liu, Ying-Chen Lin, Kazue Kanehara (Institute of Plant and Microbial Biology, Academia Sinica, Taiwan)
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- 12:30 PT-014 A pair of non-specific phospholipases C, NPC2 and NPC6, involved in gametophyte development and glycerolipid metabolism in Arabidopsis
Anh-Hai Ngo^{1,2,3}, Ying-Chen Lin^{1,2,3}, Yu-chi Liu¹, Katharina Gutbrod⁴, Helga Peisker⁴, Peter Dörmann⁴, Yuki Nakamura^{1,2,5} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Academia Sinica, Taiwan International Graduate Program, Taipei 11529, Taiwan, ³Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung 402, Taiwan, ⁴Institute of Molecular Physiology and Biotechnology of Plants, University of Bonn, Germany, ⁵Biotechnology Center, National Chung-Hsing University, Taichung 402, Taiwan)
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- 12:40 PT-004 Morphological studies of floral trichome for the scent orchid *Phalaenopsis bellina*
Ya-Lan Chang¹, Hong-Hwa Chen^{1,2} (¹Department of Life Sciences, National Cheng Kung University, Tainan 701, Taiwan, ²Orchid Research and Development Center, National Cheng Kung University, Tainan 701, Taiwan)
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- 12:50 2aD04 Interaction and its functional correlation of factors constituting the biosynthetic machinery of natural rubber from *Hevea brasiliensis*
Kouji Kojima¹, Makoto Yamaguchi¹, Tomoki Ishii¹, Miki Hiromori¹, Toshiyuki Waki¹, Satoshi Yamashita², Yuzuru Tozawa³, Haruhiko Yamaguchi⁴, Yukino Inoue⁴, Kazuhisa Fushihara⁴, Toru Nakayama¹, Seiji Takahashi¹ (¹Grad. Eng., Tohoku Univ., ²Grad. Natural Sci. Tech., Kanazawa Univ., ³Grad. Sci. Eng., Saitama Univ., ⁴Sumitomo Rubber Ind., Ltd.)

3月15日(金) 11:10~13:00 G会場

Plant Hormones, Signaling Molecules

Chairpersons: Hitoshi Sakakibara
Hsu-Liang Hsieh

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- 11:10 TS08-1 New insights into auxin biosynthesis and inactivation in plants
Yuki Aoi¹, Noriko Takeda², Yumiko Takebayashi², Ken-ichiro Hayashi³, Hiroyuki Kasahara^{1,4} (¹Grad. Sch. Agric., Tokyo Univ. Agric. Tech., Japan, ²RIKEN CSRS, Japan, ³Dep. Biochem., Okayama Univ. Sci., Japan, ⁴GIR, Tokyo Univ. Agri. Tech., Japan)
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- 11:30 TS08-2 Interplay of auxin and cytokinin signaling in vasculature development
Ildoo Hwang (Department of Life Sciences, Pohang University of Science and Technology, Pohang 37673, Korea)
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- 11:50 TS08-3 The SALT HYPERSENSITIVE MUTANT 1 and 9, nucleolar proteins involved in pre-rRNA processing, mediate normal plant growth and salt sensitivity through auxin and ABA signaling in *Arabidopsis*
Wan-Hsing Cheng (Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan)
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- 12:10 TS08-4 Mutation of Arabidopsis *SAURs* Impairs the Efficient Translation of Transcripts Essential for Pollen Tube Growth
Siou-Luan He^{1,2}, Guang-Yuh Jauh^{2,3,4} (¹Institute of Plant Biology, National Taiwan University, Taipei, Taiwan, ²Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan, ³Molecular and Biological Agricultural Sciences, Taiwan International Graduate Program, National Chung-Hsing University, Academia Sinica, Taipei, Taiwan, ⁴Biotechnology Center, National Chung-Hsing University, Taichung, Taiwan)
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- 12:30 PT-048 Phytosterols homeostasis, the missing piece, in brassinosteroids signaling mediated stomatal division orientation
Chih-Chung Yen¹, Ya-Wen Hsu¹, Kuan-Chieh Leu¹, Jei-Fu Shaw², Guang-Yuh Jauh (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Department of Biological Science & Technology, I-Shou University, Kaohsiung 840, Taiwan)
-
- 12:40 PT-003 MYBR is a major player in sugar feedback repression of starch breakdown during germination and seedling growth in rice
Yi-Shih Chen^{1,2}, Chun-Hua Lee¹, Yi-Ru Chen^{1,2}, Tuan-Hua David Ho³, Chung-An Lu¹, Su-May Yu² (¹Dept. of Life Science, National Central University, Taoyuan 320, Taiwan, ²Institute of Molecular Biology, Academia Sinica, Nankang, Taipei 115, Taiwan, ³Institute of Plant and Microbial Biology, Academia Sinica, Nankang, Taipei 115, Taiwan)
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- 12:50 2aG06 Transcription Factor D53 Is Involved in the Determination of the Gemma Number Formed in Gemma Cups of *Marchantia polymorpha*
Aino Komatsu¹, Yohei Mizuno¹, Kyoichi Kodama², Shota Shimazaki¹, Satoshi Naramoto¹, Kimitsune Ishizaki³, Junko Kyojuka¹ (¹Grad. Sch., Life Sci., Tohoku Univ., ²Fac. Sci., Tohoku Univ., ³Grad. Sch. Sci., Kobe Univ., Japan)

3月15日(金) 16:30～18:20 A会場

Growth and Development

Chairpersons: Toshiro Ito
Tien-Shin Yu

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- 16:30 TS09-1 Regulation of leaf meristem
Hirokazu Tsukaya^{1,2} (¹Graduate School of Science, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan, ²Bio-Next project, Exploratory Research Center on Life and Living Systems, NINS, Okazaki 444-8787, Japan)
-
- 16:50 TS09-2 Multistep termination of floral stem cell activities
Toshiro Ito (Nara Institute of Science and Technology, Biological Science, Plant Stem Cell Regulation and Floral Patterning Laboratory, Nara 630-0192, Japan)
-
- 17:10 TS09-3 Cell fate determination in asymmetrically dividing stomatal lineage cells in *Arabidopsis*
Chin-Min Kimmy Ho (Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan)
-
- 17:30 TS09-4 Inter-organ communication by plant mobile mRNAs
Tien-Shin Yu (Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan)
-
- 17:50 PT-023 The function of a small peptide in root meristem development in *Arabidopsis*
Masashi Yamada^{1,2}, Xinwei Han², Philip Benfey² (¹Biotechnology Center in Southern Taiwan, Academia Sinica, Tainan 74145, Taiwan, ²Department of Biology and HHMI, Duke University, Durham, NC 27710, USA)
-
- 18:00 PT-032 Coexpression analysis of curd development in cauliflower (*Brassica oleracea* L. var. *botrytis*)
Jheng-Yang Ou¹, Po-Xing Zheng¹, Ta-Yu Yang¹, Wang Lin¹, Tzu-Chiao Liao¹, Chen-Yu Lin², Yao-Cheng Lin¹ (¹Biotechnology Center in Southern Taiwan, Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ²Department of Vegetable Crops, Fengshan Tropical Horticultural Experiment Branch, Taiwan Agricultural Research Institute, Kaoshiung 830, Taiwan)
-
- 18:10 1pJ01 Genetic Analysis of Genes Influencing Stem-Cell Homeostasis in *Arabidopsis*
Ryuji Tsugeki (Grad. Sch. Sci., Kyoto Univ., Japan)

3月15日(金) 16:30~18:20 B会場

Gene Regulation

Chairpersons: Keiji Nakajima
Keqiang Wu

- | | | |
|-------|--------|---|
| 16:30 | TS10-1 | Crosstalk between pre-mRNA splicing and transcription for the cell potency regulation in plants
<u>Misato Ohtani</u> ^{1,2} (¹ Nara Institute of Science and Technology, Ikoma 630-0192, Japan, ² RIKEN, Center for Sustainable Resource Science, Wako 351-0198, Japan) |
| 16:50 | TS10-2 | AGO1 interacting proteins regulate developmental gene expression via siRNA-transposon modules
<u>Takahiro Hamada</u> ^{1,2} (¹ JST-PRESTO, ² Graduate School of Arts and Science, Univ. of Tokyo, Meguro, Tokyo, Japan) |
| 17:10 | TS10-3 | The regulatory role of plant-specific transcription factor family BASIC PENTACYSTEINEs in <i>Arabidopsis</i> circadian clock
<u>Huang-Lung Tsai</u> (Institute of Molecular and Cellular Biology, National Taiwan University, Taipei, Taiwan) |
| 17:30 | TS10-4 | The <i>Arabidopsis</i> LDL1/2-HDA6 histone modification complex is functionally associated with CCA1/LHY in regulation of circadian clock genes
<u>Keqiang Wu</u> (Institute of Plant Biology, National Taiwan University, Taipei, Taiwan) |
| 17:50 | PT-164 | PlantPAN 3.0: an updated resource for interpreting transcriptional regulatory networks from ChIP-seq experiments and integrating protein structure-based features of regulatory factors in plants
<u>Chi-Nga Chow</u> ¹ , <u>Tzong-Yi Lee</u> ² , <u>Yu-Cheng Hung</u> ³ , <u>Guan-Zhen Li</u> ³ , <u>Kuan-Chieh Tseng</u> ⁴ , <u>Ya-Hsin Liu</u> ⁴ , <u>Po-Li Kuo</u> ³ , <u>Han-Qin Zheng</u> ³ , <u>Wen-Chi Chang</u> ^{1,3,4} (¹ Graduate Program in Translational Agricultural Sciences, National Cheng Kung University and Academia Sinica, Taiwan, ² School of Science and Engineering, The Chinese University of Hong Kong, Shenzhen, China, ³ Institute of Tropical Plant Sciences, College of Biosciences and Biotechnology, National Cheng Kung University, Tainan 70101, Taiwan, ⁴ Department of Life Sciences, College of Biosciences and Biotechnology, National Cheng Kung University, Tainan 70101, Taiwan) |
| 18:00 | PT-056 | Phytochromes regulate alternative splicing through hnRNP and U1 snRNP in <i>Physcomitrella patens</i>
<u>Chueh-Ju Shih</u> ^{1,2,3} , <u>Hsiang-Wen Chen</u> ¹ , <u>Hsin-Yu Hsieh</u> ¹ , <u>Yung-Hua Lai</u> ¹ , <u>Fang-Yi Chiu</u> ¹ , <u>Yu-Rong Chen</u> ¹ , <u>Shih-Long Tu</u> ^{1,2,4} (¹ Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ² Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, Chung-Hsing University and Academia Sinica, Taipei 11529, Taiwan, ³ Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung 402, Taiwan, ⁴ Biotechnology Center, National Chung-Hsing University, Taichung 402, Taiwan) |
| 18:10 | PF-065 | Functional analysis of a novel GRAS-type transcription factor E1M required for proper cell cycle regulation in meristem
<u>Yuji Nomoto</u> ¹ , <u>Rieko Noda</u> ¹ , <u>Toshiya Suzuki</u> ² , <u>Takamasa Suzuki</u> ³ , <u>Kenichiro Maeo</u> ¹ , <u>Masaki Ito</u> ¹ (¹ Grad. Sch. Bioagr. Sci., Nagoya Univ., ² Plant Genet. Lab., Nat. Inst. Genet., ³ Coll. Biosci. Biotech., Chubu Univ., Japan) |

3月15日(金) 16:30 ~ 18:20 F会場

Photobiology

Chairpersons: Tomonao Matsushita
Shih-Long Tu

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- 16:30 TS11-1 Signaling network of phototropin-regulated stomatal opening
Atsushi Takemiya (Graduate School of Sciences and Technology for Innovation, Yamaguchi University, Yamaguchi, Japan)
-
- 16:50 TS11-2 Phototropin is thermosensory protein for chloroplast movement
Yutaka Kodama (Center for Bioscience Research and Education, Utsunomiya University, Tochigi, Japan)
-
- 17:10 TS11-3 Photoprotective mechanisms of the photosystem II reaction center in Cyanobacteria
Yi-Fang Chiu, Jine-Yung Huang, Han-Yi Fu, Nien-Tzu Hung, Keng-Min Lin, Hsiu-An Chu (Institute of Plant and Microbial Biology, Academia Sinica, Taipei, 11529 Taiwan)
-
- 17:30 TS11-4 Phytochrome B and FIN219/JAR1 antagonize each other to regulate shade light signaling in Arabidopsis
Kai-Chun Peng, Hsu-Liang Hsieh (Institute of Plant Biology, College of Life Science, National Taiwan University, Taipei 106, Taiwan)
-
- 17:50 PT-059 Phytochrome regulates light-responsive alternative splicing through hnRNP-F1 and an exonic splicing silencer in *Physcomitrella patens*
Bou-Yun Lin^{1,2,3}, Chueh-Ju Shih^{1,2,3}, Shih-Long Tu^{1,2,4} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, Chung-Hsing University and Academia Sinica, Taipei 11529, Taiwan, ³Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung 402, Taiwan, ⁴Biotechnology Center, National Chung-Hsing University, Taichung 402, Taiwan)
-
- 18:00 PT-052 Processing bodies regulate the timely and selective translation for optimal development of Arabidopsis young seedlings
Geng-Jen Jang^{1,2}, Jun-Yi Yang³, Hsu-Liang Hsieh², Shu-Hsing Wu¹ (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 115, Taiwan, ²Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan, ³Institute of Biochemistry, National Chung Hsing University, Taichung 402, Taiwan)
-
- 18:10 2pC02 Cis-Element Analysis of Phytochrome-Mediated Alternative Promoter Selection in Arabidopsis
Jaewook Kim¹, Mika Nomoto², Yasuomi Tada², Tomonao Matsushita¹ (¹Fac. Agr., Kyushu Univ., ²Gene Research Center, Nagoya Univ., Japan)

3月15日(金) 16:30~18:20 G会場

Crop Improvement

Chairpersons: Yutaka Sato
Chwan-Yang Hong

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| 16:30 | TS12-1 | Rapid breeding of important traits in tomato by gene editing technologies
<u>Hiroshi Ezura</u> (University of Tsukuba, Tsukuba Plant Innovation Research Center, Japan) |
| 16:50 | TS12-2 | Trial of Rice breeding based on science
<u>Moto Ashikari</u> (Nagoya University, Bioscience and Biotechnology Center, Japan) |
| 17:10 | TS12-3 | Subtropical adaptation of a temperate plant (<i>Brassica oleracea</i> var. <i>italica</i>) utilizes non-vernalization-responsive QTLs
<u>Yann-rong Lin</u> (Department of Agronomy, National Taiwan University, Taipei 10617, Taiwan) |
| 17:30 | TS12-4 | <i>Rice Big Grain 1</i> promotes cell division to enhance organ development, stress tolerance and grain yield
Shuen-Fang Lo ^{1,2} , Su-May Yu ^{1,2} , <u>Tuan-Hua David Ho</u> ^{2,3} (¹ Institute of Molecular Biology, Academia Sinica, Nankang, Taipei 115, Taiwan, ROC, ² Agricultural Biotechnology Center, National Chung Hsing University, Taichung 402, Taiwan, ROC, ³ Institute of Plant and Microbial Biology, Academia Sinica, Nankang, Taipei 115, Taiwan, ROC) |
| 17:50 | PT-077 | Unleashing the power of IRON MAN in rice
<u>Chandan Kumar Gautam</u> ^{1,2,3} , Louis Grillet ¹ , Wolfgang Schmidt ^{1,2,4} (¹ Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ² Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, National Chung Hsing University and Academia Sinica, Taiwan, ³ Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 40227, Taiwan, ⁴ Biotechnology Center, National Chung Hsing University, Taichung 40227, Taiwan) |
| 18:00 | PT-046 | Hydrogen peroxide mediates glutathione-promoted seed germination in rice
<u>Chin-Yu Wu</u> , Chwan-Yang Hong (Department of Agricultural Chemistry, National Taiwan University, Taipei 10617, Taiwan) |
| 18:10 | 1pH03 | Two quantitative trait loci for panicle length influence panicle architecture in rice
<u>Ayumi Agata</u> ¹ , Tokunori Hobo ² , Koki Ando ¹ , Yasuko Fujishiro ¹ , Takamasa Suzuki ⁴ , Hitoshi Sakakibara ^{1,3} , Sayaka Takehara ² , Miyako Ueguchi-Tanaka ² , Makoto Matsuoka ² , Kazuyuki Doi ¹ , Motoyuki Ashikari ² , Hidemi Kitano ² (¹ Grad. Sch. Bioagr. Sci., Nagoya Univ., ² Biosci. Biotec. Ctr., Nagoya Univ., ³ CSRS, RIKEN, ⁴ Grad. Sch. Biosci. Biotech., Chubu Univ., Japan) |

■ 光合成, 光合成の環境応答

- PT-001 Photoprotective mechanisms of the photosystem II reaction center in Cyanobacteria
Hsiu-An Chu, Yi-Fang Chiu, Jine-Yung Huang, Han-Yi Fu, Nien-Tzu Hung, Kung-Min Lin (Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-002 Arabidopsis AOS1 (Ammonia Over Sensitive 1) encoding a new regulator between nitrogen assimilation and photosynthesis
Ting-Hung Lin, Shan-Hua Lin, Yi-Fang Tsay (Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan)

■ 一次代謝, 二次代謝

- PT-003 MYBR is a major player in sugar feedback repression of starch breakdown during germination and seedling growth in rice
Yi-Shih Chen^{1,2}, Chun-Hua Lee¹, Yi-Ru Chen^{1,2}, Tuan-Hua David Ho³, Chung-An Lu¹, Su-May Yu² (¹Dept. of Life Science, National Central University, Taoyuan 320, Taiwan, ²Institute of Molecular Biology, Academia Sinica, Nankang, Taipei 115, Taiwan, ³Institute of Plant and Microbial Biology, Academia Sinica, Nankang, Taipei 115, Taiwan)
- PT-004 Morphological studies of floral trichome for the scent orchid *Phalaenopsis bellina*
Ya-Lan Chang¹, Hong-Hwa Chen^{1,2} (¹Department of Life Sciences, National Cheng Kung University, Tainan 701, Taiwan, ²Orchid Research and Development Center, National Cheng Kung University, Tainan 701, Taiwan)

■ 生体膜・イオン・物質輸送

- PT-005 EHD1 Define Endocytic Recycling Pathway for Cell Plate Formation and Root Development in Arabidopsis
Ho-Yin Angus Law¹, Liwen Jiang² (¹Technological and Higher Education Institute of Hong Kong, Hong Kong SAR, China, ²School of Life Sciences, Centre for Cell & Developmental Biology and State Key Laboratory of Agrobiotechnology, The Chinese University of Hong Kong, Hong Kong SAR, China)
- PT-006 Mobile mRNAs utilize vesicle trafficking machineries for plasmodesmata-targeting
Kai-Ren Luo, Nien-Chen Huang, Tien-Shin Yu (Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-007 Uncovering Genes Responsible for Phosphate Use and Acquisition Efficiency by Genome-Wide Association Studies Using Nature Variations of Arabidopsis
Pei-Shan Chien¹, Yu-Ying Hsu¹, Chih-Wei Tung², Tzyy-Jen Chiou¹ (¹Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ²Department of Agronomy, National Taiwan University, Taipei 106, Taiwan)
- PT-008 Identification of sodium/myo-inositol transporters in seedlings of halophyte ice plant (*Mesembryanthemum crystallinum* L.)
Cheng Hsun Li, Hsing-Jung Tien, Hungchen Emilie Yen (Department of Life Sciences, National Chung Hsing University, Taichung 402, Taiwan)
- PT-009 Scopoletin 8-Hydroxylase is a critical component of the Arabidopsis iron acquisition system
Huei-Hsuan Tsai^{1,2,3}, Jorge Rodríguez-Celma⁴, Ping Lan⁵, Yu-Ching Wu¹, Isabel Cristina Vélez-Bermúdez¹, Wolfgang Schmidt^{1,2,6} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, National Chung Hsing University and Academia Sinica, Taiwan, ³Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 40227, Taiwan, ⁴John Innes Centre and University of East Anglia, Norwich Research Park, Norwich NR4 7UH, UK, ⁵State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, Nanjing, 210008, P.R. China, ⁶Biotechnology Center, National Chung Hsing University, Taichung 40227, Taiwan)
- PT-010 Tic236 links the chloroplast outer and inner membrane translocons
Yih-Lin Chen¹, Lih-Jen Chen¹, Chiung-Chih Chu¹, Po-Kai Huang², Jie-Ru Wen¹, Hsoun-min Li¹ (¹Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan, ²Department of Plant Sciences, University of California, USA)
- PT-011 A strategy for improving plant nitrogen use efficiency (NUE) by manipulating a transporter involved in nitrate remobilization
Kuo-En Chen, Hui-Yu Chen, Shu-Chun Fan, Yi-Fang Tsay (Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan)

- PT-012 Critical roles of Arabidopsis phospho-base methyltransferases in phosphatidylcholine biosynthesis and plant development
Yu-Chi Liu¹, Ying-Chen Lin^{1,2,3}, Kazue Kanehara¹, Yuki Nakamura¹ (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Academia Sinica, Taiwan International Graduate Program, Taipei 11529, Taiwan, ³Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 402, Taiwan)
- PT-013 Role of Arabidopsis lysophosphatidic acid acyltransferases (LPATs) in nitrogen starvation response and glycerolipid metabolism
Artik Elisa Angkawijaya, Van Cam Nguyen, Yuki Nakamura (Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-014 A pair of non-specific phospholipases C, NPC2 and NPC6, involved in gametophyte development and glycerolipid metabolism in Arabidopsis
Anh-Hai Ngo^{1,2,3}, Ying-Chen Lin^{1,2,3}, Yu-chi Liu¹, Katharina Gutbrod⁴, Helga Peisker⁴, Peter Dörmann⁴, Yuki Nakamura^{1,2,5} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Academia Sinica, Taiwan International Graduate Program, Taipei 11529, Taiwan, ³Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung 402, Taiwan, ⁴Institute of Molecular Physiology and Biotechnology of Plants, University of Bonn, Germany, ⁵Biotechnology Center, National Chung-Hsing University, Taichung 402, Taiwan)
- PT-015 Investigating the mechanism of targeting and oligomerization of the thylakoid membrane protein CURVATURE THYLAKOID1A (CURT1A)
Chen-Yi Dai, Tzu-Yin Liu (Institute of Bioinformatics and Structural Biology, National Tsing Hua University, Hsinchu 30013, Taiwan)
- PT-016 N-terminal amino acid size is important for transmembrane domain to function as a stop transfer signal
Meng-Rong Chuang, Hsou-min Li (Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan)

■ 細胞周期・分裂

- PT-017 *MAC1* and *MSP1* promote mitotic quiescence of pollen mother cells by regulating the retinoblastoma-related pathway in maize
Ching-Chih Tseng^{1,2}, Chi-Ting Wang¹, Yun-Zhi Shi¹, Yu-Hsin Kao¹, Shih-Tong Jeng², Chung-Ju Rachel Wang¹ (¹Institution of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan)
- PT-018 The Arabidopsis YPEL gene, AtYIP1, acts as a repressor preventing cell division and growth in plant
Wei-Han Hsu¹, Chin-Wei Kuo¹, Tsai-Yu Tzeng², Chang-Hsien Yang¹ (¹Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung 402, Taiwan, ²Genome Research Center, National Yang-Ming University, Taipei 112, Taiwan)
- PT-019 SUMO Protease Acts on Ribosomal Protein L30 to Regulate Cell Size Checkpoint Control
Yen-Ling Lin^{1,2}, Su-Chiung Fang¹, Chin-Lin Chung¹ (¹Academia Sinica-Biotechnology Center in Southern Taiwan, Tainan 74145, Taiwan, ²Ph.D. Program in Microbial Genomics, National Chung Hsing University, Taichung 402, Taiwan)
- PT-020 Geometric cues forecast the cell fate switch from 2D-to-3D growth in *Physcomitrella patens*
Han Tang¹, Kilian Duijts¹, Ben Scheres², Joop EM Vermeer³, Viola Willemsen² (¹Laboratory of Cell Biology, Wageningen University & Research, The Netherlands, ²Plant Developmental Biology, Wageningen University & Research, The Netherlands, ³Plant Cell Biology, Department of Plant and Microbial Biology, University of Zürich, Switzerland)
- PT-021 HHAB is required for cytokinesis in early embryogenesis through its cytoskeleton bundling activity.
Ya-Wen Hsu¹, Chine-Ta Juan¹, Cian-Ling Guo¹, Hwei-Jing Wang¹, Guang-Yuh Jauh^{1,2} (¹Institute of Plant and Microbial Biology, Academia Sinica, Nankang, Taipei, 11529, Taiwan, ²Biotechnology Center, National Chung-Hsing University, Taichung, 402, Taiwan)

■ 榮養成長

- PT-022 High ammonia concentration and pH value cause cell death of *Chlorella vulgaris* through programmed cell death and related with inhibition of photosynthesis efficiency
Hui-Ju Hsu¹, Jen-Chih Chen^{1,2} (¹Institute of Biotechnology, National Taiwan University, Taipei 106, Taiwan, ²Agricultural Biotechnology Research Center, Academia Sinica, Taipei 115, Taiwan)
- PT-023 The function of a small peptide in root meristem development in *Arabidopsis*
Masashi Yamada^{1,2}, Xinwei Han², Philip Benfey² (¹Biotechnology Center in Southern Taiwan, Academia Sinica, Tainan 74145, Taiwan, ²Department of Biology and HHMI, Duke University, Durham, NC 27710, USA)

- PT-024 Genome-wide identification of YABBY genes involved in gynostemium development of *Phalaenopsis equestris*
Wen-Chieh Tsai¹, You-Yi Chen^{1,2} (¹Institute of Tropical Plant Sciences, National Cheng Kung University, Tainan 701, Taiwan, ²Department of Life Sciences, National Cheng Kung University, Tainan 701, Taiwan)
- PT-025 The *sd1* alleles in Taiwan rice land races
Lin-Tzu Huang¹, Su-jein Chang², Yue-Ie Caroline Hsing¹ (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Miaoli District Agricultural Research and Extension Station, Miaoli 363, Taiwan)
- PT-026 Two-step evolution of an obligate heterodimer complex regulating vascular development
Kuan-Ju Lu¹, Nicole van 't Wout Hofland¹, Dolf Weijers¹, Bert De Rybel^{2,3} (¹Laboratory of Biochemistry, Wageningen University, Netherlands, ²Department of Plant Biotechnology and Bioinformatics, Ghent University, Belgium, ³VIB Center for Plant Systems Biology, Belgium)

■ 生殖成長

- PT-027 Functional characterization of PeMADS28, a B-sister MADS-box gene, from *Phalaenopsis equestris*
Hsiang-Chia Lu, Ching-Yu Shen, You-Yi Chen, Wen-Chieh Tsai (Institute of Tropical Plant Sciences, National Cheng Kung University, Tainan 701, Taiwan)
- PT-028 Function of Arabidopsis E3 ligases REDs in sexual reproduction
Ning Wang, Yi-Min Li, Yu-Hsyan Yuan, Yi-Syue Ho, Yung-Chu Tsai, Chiu-Ping Cheng (Institute of Plant Biology National Taiwan University, Taipei 10617, Taiwan)
- PT-029 The effect of OsCDPK1 on seed development in rice
Shin Lon Ho, Chun-Hsiang Kuo, Mao-Kei Chen (Department of Agronomy, National Chiayi University, Chiayi 60004, Taiwan)
- PT-030 Functional Analysis of Two FOREVER YOUNG FLOWER Orthologues From *Phalaenopsis* Orchid in Regulating Flower Senescence and Abscission
Wei-Han Chen, Zhi-Yi Jiang, Chang-Hsien Yang (Institute of Biotechnology, National Chung Hsing University, Taichung 40227, Taiwan)
- PT-031 Function study of a grass-specific *OsNACgs9* transcription factor in leaf and flower development
Yu-Han Lin¹, Chih-Yung Chi¹, Nobutaka Mitsuda², Ruey-Hua Lee¹ (¹Institute of Tropical Plant Sciences and Microbiology, College of Bioscience and Biotechnology, National Chung Kung University, Tainan 701, Taiwan, ²National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan)
- PT-032 Coexpression analysis of curd development in cauliflower (*Brassica oleracea* L. var. *botrytis*)
 Jheng-Yang Ou¹, Po-Xing Zheng¹, Ta-Yu Yang¹, Wang Lin¹, Tzu-Chiao Liao¹, Chen-Yu Lin², Yao-Cheng Lin¹ (¹Biotechnology Center in Southern Taiwan, Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ²Department of Vegetable Crops, Fengshan Tropical Horticultural Experiment Branch, Taiwan Agricultural Research Institute, Kaoshiung 830, Taiwan)
- PT-033 Proper Mitochondrial Fission is Important for Pollen Development
Pei-Ying Chen¹, Chia-Chen Wu¹, Chun-Chi Lin², Wann-Neng Jane³, Der-Fen Suen¹ (¹Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ²Department of Life Sciences and Institute of Genome Sciences, National Yang-Ming University, Taiwan, ³Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan)
- PT-034 Characterization and functional analysis of SAUR32 gene from *Arabidopsis thaliana*
Pei-Fang Li, Yong-Xiang Zhan, Chang-Hsien Yang (Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 402, Taiwan)
- PT-035 Coexist of Homodimers and Heterodimers of Lily (*Lilium longiflorum*) B Functional MADS Proteins in Regulating Tepal and Stamen Formation
Wan-Ting Mao, Wan-Ting Mao, Jen-Ying Li, Wei-Han Hsu, Chang-Hsien Yang (Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 402, Taiwan)
- PT-036 Temporal transcriptomics analysis of developing soybean endosperm
Yue-Ie Caroline Hsing, Ming-der Shih, Jian-shin Lin (Academia Sinica, Taipei 11529, Taiwan)
- PT-037 Characterization of lipid transfer protein (LTP) in green algae
Chin wei Wu, Ming-der Huang (Department of Biological Sciences, National Sun Yat-sen University, Kaoshiung 80424, Taiwan)

- PT-038 The long pollen tube journey and in vitro pollen germination of *Phalaenopsis* orchids.
Jhun-Chen Chen^{1,2}, Su-Chiung Fang^{1,2} (¹Biotechnology Center in Southern Taiwan, Academia Sinica, Tainan 74145, Taiwan, ²Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan)
- PT-039 Analysis of transcriptomes during protocorm developmental stages and characterization of lipase genes from *Phalaenopsis aphrodite* subsp. *formosana*
Chieh-Kai Liang¹, Yu-Yun Hsiao³, Hao-Jen Huang^{1,2}, Wen-Chieh Tsai^{1,2,3} (¹Department of Life Science, College of Bioscience and Biotechnology, National Cheng Kung University, Tainan City 701, Taiwan, ²Institute of Tropical Plant Science, College of Bioscience and Biotechnology, National Cheng Kung University, Tainan City 701, Taiwan, ³Orchid Research and Development Center, National Cheng Kung University, Tainan City 701, Taiwan)

■ 植物ホルモン/シグナル伝達物質

- PT-040 Chemical interference of ETHYLENE INSENSITIVE3 dimerization by small-molecule compounds to modulate ethylene response in *Arabidopsis thaliana*
Jui-Cheng Yu¹, Kung-Ming Liu¹, Sian-Chi Li¹, Wan-Sheng Lo², Long-Chi Wang¹ (¹Department of Life Sciences, National Chung Hsing University, Taichung 402, Taiwan, ²Institute of Plant and Microbial Biology, Academia Sinica, Taipei 115, Taiwan)
- PT-041 A potential role of *Arabidopsis* ETHYLENE OVERPRODUCER1 in nucleus
Ching-Yu Hsu¹, Yi-Ying Lu¹, Hao-Ting Hsu¹, Wan-Sheng Lo², Long-Chi Wang¹ (¹Department of Life Sciences, National Chung Hsing University, Taichung 402, Taiwan, ²Institute of Plant and Microbial Biology, Academia Sinica, Taipei 115, Taiwan)
- PT-042 Functional Identification of key amino acids involved in enzymatic activity of rice OsGA2ox7
Yi-Ting Chen, Kun-Ting Hsieh, Ting-Jen Hu, Su-Hui Liu, Li-Wei Chen, Chih-Hung Hsieh, Liang-Jwu Chen (Institute of Molecular Biology College of Life Science, National Chung Hsing University, Taichung 40227, Taiwan)
- PT-043 A Novel ABA-induced Protein Phosphatase Regulates Lateral Root Elongation and Diffusion Barriers Formation in Rice
Chun-Hsien Lu^{1,2}, Tuan-Hua David Ho³, Su-May Yu^{1,2} (¹Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan, ²Genome and Systems Biology Degree Program, National Taiwan University and Academia Sinica, Taiwan, ³Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-044 The roles of the NIN-Like Protein family in nitrate signaling
Yu-Hsuan Cheng^{1,2}, Fu-Chiun Hsu³, Anne Krapp⁴, Yi-Fang Tsay¹ (¹Institute of molecular biology, Academia sinica, Taipei 11529, Taiwan, ²Molecular and Cell Biology, Taiwan International Graduate Program, Academia Sinica & National Defense Medical Center, Taiwan, ³Department of Horticulture and Landscape Architecture, National Taiwan University, Taipei 106, Taiwan, ⁴Institut Jean-Pierre Bourgin, Institut National de la Recherche Agronomique (INRA), Versailles, France)
- PT-045 Autophagy cargo receptor 1 plays an important role in brassinosteroid signal and yields in rice
Hui-Hsin Chen¹, Jin-Zhang Liang¹, Shuen-Fang Lo², Jun-Yi Yang¹ (¹National Chung Hsing University, Taichung 402, Taiwan, ²International Rice Functional Genomic Center.)
- PT-046 Hydrogen peroxide mediates glutathione-promoted seed germination in rice
Chin-Yu Wu, Chwan-Yang Hong (Department of Agricultural Chemistry, National Taiwan University, Taipei 10617, Taiwan)
- PT-047 Exploring the function of the miR390-TAS3-ARF pathway in *Marchantia polymorpha*
Yu-Ling Hung¹, Yuan-Chi Chien², Emi Hainiwa³, Rui Sun³, Shohei Yamaoka³, Ryuichi Nishihama³, Takayuki Kohchi³, Chun-Neng Wang^{4,5} (¹Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan, ²Department of Biochemical Science and Technology, National Taiwan University, Taipei 106, Taiwan, ³Graduate School of Biostudies, Kyoto University, Kyoto 606-8501, Japan, ⁴Institute of Ecology and Evolutionary Biology, National Taiwan University, Taipei 106, Taiwan, ⁵Department of Life Science, National Taiwan University, Taipei 106, Taiwan)
- PT-048 Phytoosterols homeostasis, the missing piece, in brassinosteroids signaling mediated stomatal division orientation
Chih-Chung Yen¹, Ya-Wen Hsu¹, Kuan-Chieh Leu¹, Jei-Fu Shaw², Guang-Yuh Jauh (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Department of Biological Science & Technology, I-Shou University, Kaohsiung 840, Taiwan)
- PT-049 Functional Analysis of CONSTANS-Like gene in Regulating Anther Dehiscence in Angiosperms
Hui-Ci Yang, Wen-Hsuan Ko, Pei-Wen Chung, Che-Jui Hsu, Wei-Han Hsu, Chang-Hsien Yang (Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 402, Taiwan)

■ 光受容体/光応答, 花成/時計

- PT-050 Functional involvement of the *CONSTANS-like* family in modulating flowering time in octoploid cultivated strawberry
Althea Yi-Shan Li, Po-Husan Chou (Department of Life Sciences, Tzu Chi University, Hualien 97004, Taiwan)
- PT-051 Integration of time-series, multi-dimension omic data into regulatory networks in photomorphogenic Arabidopsis
Sim Lin Lim, Meng-chun Lin, Yi-Hang Li, Shu-Hsing Wu (Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-052 Processing bodies regulate the timely and selective translation for optimal development of Arabidopsis young seedlings
Geng-Jen Jang^{1,2}, Jun-Yi Yang³, Hsu-Liang Hsieh², Shu-Hsing Wu¹ (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 115, Taiwan, ²Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan, ³Institute of Biochemistry, National Chung Hsing University, Taichung 402, Taiwan)
- PT-053 bZIP16 promotes flowering through directly repressing the expression of *FLC* in the autonomous pathway
Jing-Fen Wu¹, Huang-Lung Tsai², Yi-Hsuan Huang¹, Shu-Hsing Wu¹ (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Institute of Molecular and Cellular Biology, National Taiwan University, Taipei 116, Taiwan)
- PT-054 The elasticity of circadian clock to the ever-changing environmental light regimes
Tsen-Ying Lin^{1,2}, Shu-Hsing Wu¹ (¹Institute of plant and microbial biology, Academia sinica, Taipei 11529, Taiwan, ²Department of Life Sciences, National Central University, Taoyuan 32001, Taiwan)
- PT-055 Floral transition of rice requires co-existence of Hd3a/RFT1 and OsMADS14/15
Shih-Min Lin, Kun-Ting Hsieh, Ying-Chin Chen, Chih-Hung Hsieh, Shun-Fang Lo, Liang-Jwu Chen (National Chung Hsing University, Taichung 402, Taiwan)
- PT-056 Phytochromes regulate alternative splicing through hnRNP and U1 snRNP in *Physcomitrella patens*
Chueh-Ju Shih^{1,2,3}, Hsiang-Wen Chen¹, Hsin-Yu Hsieh¹, Yung-Hua Lai¹, Fang-Yi Chiu¹, Yu-Rong Chen¹, Shih-Long Tu^{1,2,4} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, Chung-Hsing University and Academia Sinica, Taipei 11529, Taiwan, ³Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung 402, Taiwan, ⁴Biotechnology Center, National Chung-Hsing University, Taichung 402, Taiwan)
- PT-057 A WRKY transcriptional factor is post-translational modified by acetylation and regulates flowering in Arabidopsis
Yuan-Hsin Shih, Pei-Yu Lin, Keqiang Wu (Institution of Plant Science, National Taiwan University, Taipei 10617, Taiwan)
- PT-058 Splicing variants constitute novel regulators of photomorphogenic development in Arabidopsis
Chun-Kai Huang, Wen-Dar Lin, Shu-Hsing Wu (Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-059 Phytochrome regulates light-responsive alternative splicing through hnRNP-F1 and an exonic splicing silencer in *Physcomitrella patens*
Bou-Yun Lin^{1,2,3}, Chueh-Ju Shih^{1,2,3}, Shih-Long Tu^{1,2,4} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, Chung-Hsing University and Academia Sinica, Taipei 11529, Taiwan, ³Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung 402, Taiwan, ⁴Biotechnology Center, National Chung-Hsing University, Taichung 402, Taiwan)
- PT-060 Functional Characterization of a Non-vernalization Responsive Flowering Gene in Broccoli
Chia-Ching Liou¹, Jian-Zhi Huang², Chwan-Yang Hong², Yann-Rong Lin¹ (¹Department of Agronomy, National Taiwan University, Taipei 106, Taiwan, ²Department of Agricultural Chemistry, National Taiwan University, Taipei 106, Taiwan)
- PT-061 Interplay of phytochrome B and FIN219/JAR1 in response to shade in Arabidopsis
Kai-Chun Peng, Hsu-Liang Hsieh (Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan)
- PT-062 Target of rapamycin (TOR) and ribosome protein S6 (RPS6) transmit light signals to enhance protein translation in de-etiolating Arabidopsis seedlings
Guan-Hong Chen¹, Ming-Jung Liu², Yan Xiong³, Sheen Jen⁴, Shu-Hsing Wu¹ (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Biotechnology Center in Southern Taiwan, Academia Sinica, Tainan, Taiwan; Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ³Basic Forestry and Proteomics Research Center, Haixia Institute of Science and Technology, Fujian Agricultural and Forestry University, People's Republic of China, ⁴Department of Genetics, Harvard Medical School, Boston, MA, USA)
- PT-063 *LIER* gene interacts with light- and JA- responsive genes under iron deficiency
Chiu-Ling Yang, I-Chun Pan (National Chung Hsing University, Taichung 402, Taiwan)

- PT-064 NRT1.13-mediated Regulatory Mechanism of Flowering
Yun-Hsuan Lin, Yi-Fang Tsay (Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-065 Suppression of phytoene synthase gene (*Egcr1B*) caused a defect in the normal eyespot formation and resulted in a loss of phototaxis of *Euglena gracilis*
Shota Kato^{1,2}, Kazunari Ozasa³, Mizuo Maeda³, Yuri Tanno⁴, Mieko Higuchi-Takeuchi⁵, Keiji Numata⁵, Yutaka Kodama⁶, Mayuko Sato⁷, Kiminori Toyooka⁷, Hong Gil Nam², Tomoko Shinomura^{1,4} (¹Department of Biosciences, School of Science and Engineering, Teikyo University, Japan, ²Center for Plant Aging Research, Institute for Basic Science, Korea, ³Bioengineering Laboratory, RIKEN, Japan, ⁴Division of Integrated Science and Engineering, Graduate School of Science and Engineering, Teikyo University Graduate Schools, Japan, ⁵Biomass Engineering Research Division, Center for Sustainable Resource Science, RIKEN, Japan, ⁶Center for Bioscience Research and Education, Utsunomiya University, Japan, ⁷Center for Sustainable Resource Science, RIKEN, Japan)

■ 環境応答 A, B

- PT-066 Arabidopsis *IRON RESPONSIVE PROTEIN 6* is essential for shoot iron distribution
Girish Mokkapati^{1,2,3}, Wolfgang Schmidt^{1,2,4} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, National Chung Hsing University and Academia Sinica, Taiwan, ³Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 40227, Taiwan, ⁴Biotechnology Center, National Chung Hsing University, Taichung 40227, Taiwan)
- PT-067 Transcriptome analyses of differentially expressed genes and enriched pathways in ice plant (*Mesembryanthemum crystallinum*) seedlings at early stage of salt stress
Kai-Fu Zhang¹, Chia-Che Lee¹, Hungchen Emilie Yen¹, Li-Ching Hsieh² (¹Department of Life Sciences, National Chung Hsing University, Taichung 402, Taiwan, ²Institute of Genomics and Bioinformatics, National Chung Hsing University, Taichung 402, Taiwan)
- PT-068 Studying the Translational Control in Response to Wounding in Tomato
Ya-Ru Li, Ming-Jung Liu (Agricultural Biotechnology Research Center (ABRC), Academia Sinica, Taipei 11529, Taiwan)
- PT-069 Function of rice *PRP1* in regulating root architecture and abiotic stress tolerance
Foong-Jing Goh, Li-Hong Liu, Su-May Yu (Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-070 Identification of genes that regulate root development in rice under abiotic
Adnan Muzaffar^{1,2}, Yi-Shih Chen¹, Chun-Hsien Lu¹, Su-May Yu^{1,2} (¹Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan, ²Taiwan International Graduate Program-Molecular and Cell Biology, Academia Sinica and National Defense Medical Center, Taipei, Taiwan)
- PT-071 To investigate the relationship between SnRK1 and TOR signaling in the upstream regulation of autophagy in plants under phosphate starvation
Yu-Hao Kuo, Liu-Tzi Yin (Institute of Bioinformatics and Structural Biology, National Tsing Hua university, Hsinchu 30013, Taiwan)
- PT-072 Systemic Wounding-Regulated Novel MicroRNA tag6568 in Sweet Potato
Yu-Ling Lin, Yu-Chi Li, Shih-Tong Jeng (Institute of Plant Biology and Department of Life Science, National Taiwan University, Taipei 106, Taiwan)
- PT-073 Exploring microRNAs in response to Hydrogen peroxide using bioinformatics analysis in Rice (*Oryza sativa* L. Japonica TNG67)
Chih-Hung Hsieh¹, Ming-Tsung Wu², Chun-Wei Huang¹, Bo-Shun Tseng¹, Yue-Ie Caroline Hsing², Shih-Tong Jeng¹ (¹Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan, ²Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-074 Dissecting the enigma of the manganese and iron antagonism in plants
Yi-Hsiu Tsai^{1,2}, Wolfgang Schmidt¹ (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 115, Taiwan, ²Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan)
- PT-075 Temporal transcriptional and post-transcriptional regulation of iron deficiency response
I-Chun Pan¹, Chiu-Ling Yang¹, En-Jung Hsieh², Wolfgang Schmidt² (¹National Chung Hsing University, Taichung 402, Taiwan, ²Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)

- PT-076 Metina: A Transcription factor involved in Iron Deficiency Tolerance in *Arabidopsis thaliana*
Reena Sharma¹, Kuo-Chen Yeh^{1,2,4} (¹Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, Academia Sinica, Taipei 11529, Taiwan, ²Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ³Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 40227, Taiwan, ⁴Biotechnology Center, National Chung Hsing University, Taichung 40227, Taiwan)
- PT-077 Unleashing the power of IRON MAN in rice
Chandan Kumar Gautam^{1,2,3}, Louis Grillet¹, Wolfgang Schmidt^{1,2,4} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, National Chung Hsing University and Academia Sinica, Taiwan, ³Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 40227, Taiwan, ⁴Biotechnology Center, National Chung Hsing University, Taichung 40227, Taiwan)
- PT-078 Identification and characterization of the first plant Guanine deaminase (OsGDA1) in rice, its roles in drought tolerance and epigenetics
Dhananjay Narayanrao Gotarkar¹, Toshisangba Longkumer², Amrit Nanda², Kenneth M Olsen³, Biswajit Gorai⁴, Yue-Ie Caroline Hsing¹, Ajay Kohli² (¹IPMB, Academia Sinica, Taipei 11529, Taiwan, ²International Rice Research Institute, Philippines, ³Washington University, St. Louis, USA, ⁴Indian Institute of Science, Bengaluru, India)
- PT-079 Rice repetitive proline-rich proteins integrate responses to drought and pathogen infection through regulations of metabolism
 I-Chieh Tseng, Meng-Chun Lin, Ching-Lan Wang, Tuan-Hua David Ho (Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-080 Nitrate use efficiency in different *Oryza sativa* subspecies
Hsin-Yuan Chien^{1,2}, Kuo-En Chen¹, Yi-Fang Tsay¹ (¹Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan, ²Department of Life Sciences, National Tsing Hua University, Hsinchu 30013, Taiwan)
- PT-081 Investigate the evolution on the rapid movement of *Mimosa* plants by transcriptome analyses.
Yan-Han Fang, Chao-Li Huang (Institute of Tropical Plant Sciences, National Cheng Kung University, Tainan 701, Taiwan)
- PT-082 Phosphoinositide-binding protein 1 (PBPI) is a mediator linking phosphoinositide signaling and endoplasmic reticulum stress tolerance
Chao-Yuan Yu^{1,2,3}, Kazue Kanehara^{1,4} (¹IPMB, Academia Sinica, Taipei 11529, Taiwan, ²TIGP-MBAS program, NCHU & Academia Sinica, Taiwan, ³Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 402, Taiwan, ⁴Biotechnology Center, National Chung Hsing University, Taichung 402, Taiwan)

■ 環境応答 C

- PT-083 MicroRNA160 represses AUXIN RESPONSE FACTOR10, 16, and 17 to mediate heat tolerance in *Arabidopsis*
Jeng-Shane Lin¹, Chia-Chia Kuo², Shih-Tong Jeng² (¹National Chung Hsing University, Taichung 402, Taiwan, ²National Taiwan University, Taipei 106, Taiwan)
- PT-084 Effect of long-term low temperature treatment on sugar contents and antioxidative mechanisms in ice plant leaves
Yun-Cheng Tu¹, Wen-Ling Huang¹, Hungchen Emilie Yen¹, Jyisy Yang² (¹Department of Life Sciences, National Chung Hsing University, Taichung 402, Taiwan, ²Department of Chemistry, National Chung Hsing University, Taichung 402, Taiwan)
- PT-085 Deciphering mechanism of thermotolerance in tomato reproductive tissues by comparative transcriptome analysis
Pin-Jie Lu¹, Hao-Lun Yang², Jheng-Yang Ou², Ta-Yu Yang², Roland Schafleitner³, Yao-Cheng Lin², Ruey-Hua Lee¹ (¹Institute of Tropical Plant Sciences and Microbiology, National Cheng Kung University, Tainan 701, Taiwan, ²Biotechnology Center in Southern Taiwan, Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ³World Vegetable Center, Tainan 74151, Taiwan)
- PT-086 A heat stress-induced CCR4-association factor 1, OsCAF1H, participates in heat response in rice seedlings
Chung-An Lu, Wei-Lun Chou, Kai-Yin Liang (National Central University, Taoyuan City 32001, Taiwan)
- PT-087 MiR164 modulated NAC transcription factors to mediate thermotolerances of *Arabidopsis*
Po-Han Sung¹, Wei-An Tsai², Hungchen Emilie Yen¹, Jeng-Shane Lin¹, Shih-Tong Jeng³ (¹Department of life sciences, National Chung Hsing University, Taichung 40227, Taiwan, ²Department of Crop Environment, Hualien District Agricultural Research and Extension Station, Council of Agriculture, Hualien 97365, Taiwan, ³Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-088 miR163 involved in heat tolerances in *Arabidopsis thaliana*
Pei-Ling Tsai¹, Bo-Shun Tseng^{1,2}, Jeng-Shane Lin¹ (¹Department of life sciences, National Chung Hsing University, Taichung 402, Taiwan, ²Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan)

- PT-089 Determining cauliflower (*Brassica oleracea* var. botrytis) heat-tolerant mechanisms by genome and transcriptome analysis
Po-Xing Zheng¹, Ta-Yu Yang¹, Jheng-Yang Ou¹, Wang Lin¹, Te-Chang Hsu¹, Tzu-Chiao Liao¹, Chen-Yu Lin², Yao-Cheng Lin¹
 (¹Biotechnology Center in Southern Taiwan, Agricultural Biotechnology Research Center, Academia Sinica, Tainan 74145, Taiwan, ²Department of Vegetable Crops, Fengshan Tropical Horticultural Experiment Branch, Taiwan Agricultural Research Institute, Kaohsiung 830, Taiwan)
- PT-090 The SnRK1-eIFiso4G1 signaling relay regulates the translation of specific mRNAs in Arabidopsis under submergence
Hsing-Yi Cho^{1,2,3}, Mei-Yeh Jade Lu⁴, Ming-Che Shih^{1,2,5} (¹Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, National Chung-Hsing University and Academia Sinica, Taiwan, ³Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung 402, Taiwan, ⁴Biodiversity Research Center, Academia Sinica, Taipei 115, Taiwan, ⁵Biotechnology Center, National Chung-Hsing University, Taichung 402, Taiwan)
- PT-091 Arabidopsis FATTY ACID DESATURASE 2 (FAD2) is important for the endoplasmic reticulum stress tolerance
Van Cam Nguyen^{1,2,3}, Yuki Nakamura^{1,2,4}, Kazue Kanehara^{1,2,4} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, Academia Sinica, Taipei 11529, Taiwan, ³Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung 402, Taiwan, ⁴Biotechnology Center, National Chung-Hsing University, Taichung 402, Taiwan)
- PT-092 Mutation in the Arabidopsis protein farnesyl transferase gene HIT5/ERA1 affects the ability of plant to survive heat stress
Yu-Yi Lo, Tzu-Yun Wang, Jia-Rong Wu, Shaw-Jye Wu (Department of Life Science, National Central University, Taoyuan 320, Taiwan)
- PT-093 Choline homeostasis is crucial for ER stress tolerance in Arabidopsis
Ying-Chen Lin^{1,2,3}, Kazue Kanehara^{1,2,4}, Yuki Nakamura^{1,2,4} (¹Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, National Chung Hsing University and Academia Sinica, Taipei 11529, Taiwan, ²Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ³Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 40227, Taiwan, ⁴Biotechnology Center, National Chung Hsing University, Taichung 40227, Taiwan)
- PT-094 Functional analysis of rice PK1 gene on root aerenchyma formation under hypoxia
Hsiang-Ting Lee, Su-May Yu (Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-095 Functional characterization of HYPOXIA RESPONSIVE MEDIATOR 1 under low oxygen stress in Arabidopsis
Kuen-Jin Tsai, Ming-Che Shih (Agricultural Biotechnology Research Center, Academia Sinica, Taipei 115, Taiwan)
- PT-096 The heterotrimeric G protein, AGB1 contributes to endoplasmic reticulum stress tolerance in Arabidopsis thaliana
Yueh Cho¹, Tatsuo Iwasa^{1,2}, Kazue Kanehara^{1,2} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Muroran Institute of Technology, Muroran, Japan)

■ 植物生物間相互作用

- PT-097 Activation of Innate Immune Signaling Pathways by Microbial Volatiles in *Nicotiana benthamiana*
Ching-Han Chang¹, Pei-Shuan Lai², Jung Hsieh², Hao-Jen Huang^{1,2} (¹Department of Life Sciences, National Cheng Kung University, Tainan City 701, Taiwan, ²Institute of Tropical Plant Sciences, National Cheng Kung University, Tainan City 701, Taiwan)
- PT-098 Cultural degeneration reduces the activities of cell wall-degrading enzymes (CWDEs) and virulence of *Fusarium oxysporum* f. sp. niveum infecting watermelon
 Tao-Ho Chang^{1,2}, Yu-Ling Wan¹, Pi-Fang Linda Chang^{1,2}, Ying-Hong Lin³, Kan-Shu Chen⁴, Jenn-Wen Huang^{1,2} (¹Department of Plant Pathology, National Chung Hsing University, Taichung City 40227, Taiwan, ²Innovation and Development Center of Sustainable Agriculture (IDCSA), National Chung Hsing University, Taichung City 40227, Taiwan, ³Department of Plant Medicine, National Pingtung University of Science and Technology, Pingtung 912, Taiwan, ⁴Fengshan Tropical Horticultural Experiment Branch, Taiwan Agricultural Research Institute, Kaohsiung 830, Taiwan)
- PT-099 Chemical genetics coupled with a network analysis for elucidating of the plant immune system
Keito Yasue, Masataka Nakano, Nobutaka Kitahata, Kazuyuki Kuchitsu, Kengo Morohashi (Department of Applied Biological Science, Faculty of Science and Technology, Tokyo University of Science, Noda, Chiba 278-8510, Japan)
- PT-100 Discovery of Arabidopsis Protease for Maturation of PR-1 Derived Signaling Peptide to Activate SAR
Ying-Lan Chen, Yet-Ran Chen (Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan)

- PT-101 The Secretary Pathway is Required for PR-1 Processing to a Mature Peptide AtCAPE9 for the Induction of SAR in Arabidopsis
Fan-Wei Lin, Ying-Lan Chen, Kai-Tan Cheng, Yet-Ran Chen (Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan)
- PT-102 Plant Innate Immunity by the Eliciting Plant Response-Like 1 (Epl1) Elicitor of *Trichoderma Formosa*
Bing-Nan Shen¹, Chaur-Tsuen Lo², Shih-Shun Lin^{1,3,4} (¹Institute of Biotechnology, National Taiwan University, Taipei 106, Taiwan, ²Department of Biotechnology, National Formosa University, Yulin 632, Taiwan, ³Agricultural Biotechnology Research Center, Academia Sinica, Taipei 115, Taiwan, ⁴Center of Biotechnology, National Taiwan University, Taipei 106, Taiwan)
- PT-103 Pathogenic effects and mechanisms of CEVd-derived small RNAs on *Citrus exocortis viroid* infected tomato plants
Ru-Ying Fang¹, Shih Shun Lin², Tang-Long Shen¹ (¹Department of Plant Pathology and Microbiology, National Taiwan University, Taipei 106, Taiwan, ²Institute of Biotechnology, National Taiwan University, Taipei 106, Taiwan)
- PT-104 Phytoplasma effector PHYL1 may affect formation of quaternary MADS transcription factor complexes on the DNA by acting as a competitive inhibitor
Wan-Ting Sun¹, Chan-Pin Lin¹, Shih-Shun Lin² (¹Department of Plant Pathology and Microbiology, National Taiwan University, Taipei 106, Taiwan, ²Institute of Biotechnology, National Taiwan University, Taipei, Taiwan)
- PT-105 The MAPK cascade is involved in fungal volatiles-induced plant growth promotion
Pei-Yu Su¹, Ching-Han Chang¹, Tzu-Yun Tseng², Hao-Jen Huang^{1,2} (¹Department of Life Sciences, National Cheng Kung University, Tainan 701, Taiwan, ²Institute of Tropical Plant Sciences, National Cheng Kung University, Tainan 701, Taiwan)
- PT-106 Recognition of AvrPtoBB728a by SIPToB triggers tomato resistance against *Pseudomonas syringae* pv. *syringae* B728a
I-Chih Yang, Ching-Fang Chien, Nai-Chun Lin (Department of Agricultural Chemistry, National Taiwan University, Taipei 106, Taiwan)
- PT-107 Identification and characterization of endophytes with ability to enhance tomato tolerance to biotic and abiotic stresses
Chia-Han Chen¹, I-Chih Yang², Nai-Chun Lin^{1,2} (¹Master Program for Plant Medicine, National Taiwan University, Taipei 106, Taiwan, ²Department of Agricultural Chemistry, National Taiwan University, Taipei 106, Taiwan)
- PT-108 The involvement of autophagic genes in AGO1 degradation along with HC-Pro and study of interactive region of HEN1 with HC-Pro
Neda Sanobar, Pin-Chun Lin, Shih-Shun Lin (National Taiwan University, Taipei 106, Taiwan)
- PT-109 Symbiosis-induced rice phosphate transporter PT13 mediates cellular phosphate efflux
Shu-Yi Yang^{1,2,3}, Yansheng Wu⁴, Pieter de Waard⁵, Henk van As⁶, Yves Poirier², Zhonglin Shang⁴, Enrico Martinoia⁷, Uta Paszkowski² (¹Institute of Plant Biology, National Taiwan University, Taipei 10617, Taiwan, ²Department of Plant Sciences, University of Cambridge, Cambridge, CB2 3EA, UK, ³Department of Plant Molecular Biology, University of Lausanne, 1015 Lausanne, Switzerland, ⁴College of Life Science, Hebei Normal University, Shijiazhuang 050024, Hebei Province, China, ⁵Wageningen NMR Center, Wageningen University, 6708 HA Wageningen, The Netherlands, ⁶Department of Agrotechnology and Food Sciences, Wageningen University, 6708 HA Wageningen, The Netherlands, ⁷Institute of Plant Biology, University of Zurich, 8008 Zurich, Switzerland)
- PT-110 Screening of AtCAPE Perceptive Receptor Using Mutant Phenotypic Assays Under Salt Stress and Pathogen Infection
Kaitan Cheng, Ying-Lan Chen, Pei-Shan Chien, Yet-Ran Chen (ABRC of Academia Sinica, Taipei 11529, Taiwan)
- PT-111 Study of phytoplasma PHYL1 effector induces anthocyanin accumulation
Han-Pin Cheng¹, Chan-Pin Lin², Shih-Shun Lin¹ (¹Institute of Biotechnology, National Taiwan University, Taipei 106, Taiwan, ²Department of Plant Pathology and Microbiology, National Taiwan University, Taipei 106, Taiwan)
- PT-112 Screening of peptides for promoting plant defense against pathogens
Cheng-Wei Weng^{1,2,3,4}, Yi-Min Li¹, Ming-Chin Wu², Chien Chih Yang³, Rita Pei-Yeh Chen^{2,4}, Chiu-Ping Cheng¹ (¹Institute of Plant Biology National Taiwan University, Taipei 10617, Taiwan, ²Institute of Biological Chemistry, Academia Sinica, Taipei 11529, Taiwan, ³Department of Biochemical Science and Technology, National Taiwan University, Taipei 10617, Taiwan, ⁴Institute of Biochemical Sciences, National Taiwan University, Taipei 10617, Taiwan)
- PT-113 Functional study of *R. solanacearum* effector PopP3
Yi Fan Chen, Chien-Sheng Wu, Tai-Hsiang Chu, Hung-Wei Wu, Chiu-Ping Cheng (Institute of Plant Biology National Taiwan University, Taipei 10617, Taiwan)
- PT-114 Functional characterization of tomato microtubule-associated RING E3 ligase
Yi-Min Li, Yung-Chu Tsai, Yi-Syue Ho, Chiu-Ping Cheng (Institute of Plant Biology National Taiwan University, Taipei 10617, Taiwan)

- PT-115 Development and Application of Defense Peptide Elicitor CAPE1 on Enhancing the Pathogen Resistance of Tomato
Kuo-Hsin Wang, Kai-Ting Fan, Yet-Ran Chen (The Agricultural Biotechnology Research Center, Academia sinica, Taipei 11529, Taiwan)
- PT-116 Host-induced gene silencing of calcineurin in *Fusarium fujikuroi* to enhance resistance against rice Bakanae disease
Yi-Hsuan Hou, Ying-Lien Chen (Department of Plant Pathology and Microbiology, National Taiwan University, Taipei 10617, Taiwan)
- PT-117 Non-photosynthetic-Type Ferredoxin Regulated Plant Defense via ROS and SA Mediated Pathway in Transgenic Arabidopsis and Tomato
Se-Chein Chiu, Se-Chine Chiu, Jong-Hsuan Yao, Chih-Hsuan Huang, Yu-Wen Chang, Hung-Een Huang (National Taitung University, Taitung 950, Taiwan)
- PT-118 *Arabidopsis* RAB8A, RAB8B, and RAB8D proteins participate in the *Agrobacterium tumefaciens* infection process
Pei-Ru Chien, Shin-Fei Chi, Yin-Tzu Liu, Hsin-Nung Chang, Yu Lu, Fan-Chen Huang, Hau-Hsuan Hwang (Department of Life Sciences, National Chung Hsing University, Taichung 402, Taiwan)
- PT-119 A gene regulation study of the AtRTN1B functions in plant defense response
Fan-Chen Huang², Hau-Hsuan Hwang^{1,2} (¹Department of Life Sciences, National Chung Hsing University, Taichung 402, Taiwan, ²Ph.D. Program in Microbial Genomics, National Chung Hsing University and Academia Sinica, Taiwan)
- PT-120 Development of molecular markers for banana somaclonal variants resistant to Fusarium wilt using RNA-seq data
Po-Yen Su, Ho-Ming Chen, Bo-Han Hou, Ming-Hau Chiang (Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan)
- PT-121 The nuclear carriers, importin $\alpha 1$ and $\alpha 2$, regulate anti-viral defense against Bamboo mosaic virus through RNA silencing pathway in *Nicotiana benthamiana*
Jiun-Da Wang, Na-Sheng Lin (Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-122 Selecting the plant-protecting bacteria *Bacillus amyloliquefaciens* HS3 by molecular marker photosynthetic type ferredoxin
Yu-Cheng Chang, Kuo-An Lai, Chih-Hsuan Huang, Ya-Yun Zhang, Hsiang-En Huang (National Taitung University, Taitung 950, Taiwan)
- PT-123 Analysis of genes involved in resistance to Cucumber mosaic virus in Arabidopsis by genome-wide association study
Elena Gamboa Chen^{1,2}, Jen-Chih Chen^{1,2}, Hsin-Hung Yeh^{1,2} (¹Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ²Institute of biotechnology, National Taiwan University, Taipei 10617, Taiwan)
- PT-124 Plant A20/ANI protein play an important role in SA-mediated antiviral immunity
Li Chang¹, Ho-Hsiung Chang¹, Jui-Che Chang¹, Yi-Shu Chiu¹, Hsiang-Chia Lu², Duen-Wei Hsu³, Yuh Tzean¹, Hsin-Hung Yeh^{1,2} (¹Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ²Department of Plant Pathology and Microbiology, National Taiwan University, Taipei 10617, Taiwan, ³Department of Biotechnology, National Kaohsiung Normal University, Kaohsiung 824, Taiwan)
- PT-125 Application of soil fungi to induce plant resistance against virus
Yi-Shu Chiu¹, Tung Kuan^{1,2}, Po-Chuan Wang^{1,2}, Hsin-Hung Yeh¹ (¹Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ²Department of Plant Pathology and Microbiology, National Taiwan University, Taipei 10617, Taiwan)
- PT-126 Revisiting the coding potential of begomovirus via transcriptional and translational analysis
Fu-Chen Hsu¹, Ching-Wen Chiu¹, Ya-Ru Li¹, Hsin-Hung Yeh², Ming-Jung Liu^{1,2} (¹Biotechnology Center in Southern Taiwan, Academia Sinica, Tainan 74145, Taiwan, ²Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan)
- PT-127 Investigation of mechanism of P1 protein of *Potyvirus* to enhance the HC-Pro-mediated miRNA pathway suppression
Hu-Sin Fen, Shih-Shun Lin (Laboratory of Plant Molecular Biology and Virology, Institute of Biotechnology, National Taiwan University, Taipei 106, Taiwan)
- PT-128 A novel gene, AtG-LecRK-L2, enhances bacterial pathogen resistance through regulation of stomatal immunity
Chih-Cheng Chien^{1,2,3}, Ming-Che Shih^{1,2,3} (¹Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, National Chung Hsing University and Academia Sinica, Taiwan, ³Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 40227, Taiwan)

- PT-129 Roles of OsCEP peptides in arbuscular mycorrhizal symbiosis
Yu-Heng Hsieh, Ting-Yu Kuo, Kai-Chieh Chang, Shu-Yi Yang (Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan)
- PT-130 Cucumber mosaic virus RNAs induce Ca²⁺ signals to prime anti-virus activity in plants
Chuan-Hsin Chang, Hsin-Hung Yeh (Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan)
- PT-131 Autophagy involves in HC-Pro-mediated suppression of plant microRNA regulation
Shih-Shun Lin (National Taiwan University, Taipei 106, Taiwan)
- PT-132 Defensive responses of rice cultivars resistant to *Cnaphalocrocis medinalis* (Lepidoptera: Crambidae)
Wen-Po Chuang¹, Tzu-Wei Guo¹, Dai-Rong Wu², Chung-Ta Liao³ (¹National Taiwan University, Taipei 106, Taiwan, ²Miaoli District Agricultural Research and Extension Station, COA, Taiwan, ³Taichung District Agricultural Research and Extension Station, COA, Taiwan)
- PT-133 Engineered Endophyte-Assisted Phytoremediation
Shih-Hsun Hung¹, Chieh-Chen Huang², Hsiou-Jun Chen³, Eu-gene Huang⁵, Yu-Hsi Lin⁵, En-ni Chang⁵, Yan-Lin Lai³, Ru-How Liang², Tzu-Yu Hsu⁴, Tsu-Wang Sun³ (¹Department of Horticulture, National Chung Hsing University, Taichung 402, Taiwan, ²Department of Life Science, National Chung Hsing University, Taichung 402, Taiwan, ³Department of Plant Pathology, National Chung Hsing University, Taichung 402, Taiwan, ⁴Department of Physics, National Chung Hsing University, Taichung 402, Taiwan, ⁵Bachelor Program of Biotechnology, National Chung Hsing University, Taichung 402, Taiwan)
- PT-134 The influence of volatiles released by *Piriformospora indica* on plants
Pin Jie Huang^{1,2}, Min Tsair Chan² (¹Department of Biotechnology and Bioindustry Sciences, National Cheng Kung University, Tainan 701, Taiwan, ²Biotechnology Center in Southern Taiwan, Academia Sinica, Tainan 74145, Taiwan)

■ エピジェネティック制御, 転写・転写後制御/翻訳制御/タンパク質修飾・分解

- PT-135 HDA15 interacts with TCP transcription factors involved in abscisic acid responses in *Arabidopsis*
Yi-Tsung Tu, Keqiang Wu (Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan)
- PT-136 Structure basis for the activity of Histone Deacetylase 15 negatively regulated by phosphorylation in *Arabidopsis*
Chia-Yang Chen, Yi-Tsung Tu, Yi-Sheng Cheng, Keqiang Wu (Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan)
- PT-137 A forward genetic screening to identify mutants defective in translational repression imposed by upstream open reading frames in *Arabidopsis*
Ho-Wei Wu^{1,2}, Shu-Hsing Wu^{1,2} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei, 11529, Taiwan, ²Genome and Systems Biology Degree Program, National Taiwan University, Taipei 106, Taiwan)
- PT-138 Autophagy Required for AGO1 Degradation in HC-Pro-Mediated Gene Silencing Suppression
Qianwen Shang, Shih-shun Lin (National Taiwan University, Taipei 106, Taiwan)
- PT-139 Genome-wide analysis of RBP targets in plants
You-Liang Cheng, HsinYu Hsieh (Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-140 Structural and functional analyses reveal Histone Deacetylase 15 regulated by oligomerization and phosphorylation in *Arabidopsis*
Yi-Sheng Cheng (National Taiwan University, Taipei 10617, Taiwan)
- PT-141 A Residue Important for RPN2 Interacting with the *Arabidopsis* Ubiquitin Receptor RPN13 Is Critical In Vivo
Shih-Yun Lin, Usharani Raju, Ya-Ling Lin, Hong-Yong Fu (Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-142 Characteristics of MpAGO1-bound small RNA and the alteration of miRNA biogenesis of CRISPR/Cas9-mediated MIRNA mutants in *Marchantia polymorpha*
Syuan-Fei Hong¹, Aino Komatsu², Ryuichi Nishihama³, Takayuki Kohchi³, Shih-Shun Lin¹ (¹Institute of Biotechnology, National Taiwan University, Taipei 10617, Taiwan, ²Graduate School of Life Science, Tohoku University, Japan, ³Graduate School of Biostudies, Kyoto University, Japan)
- PT-143 Light-mediated seedling development in *Arabidopsis thaliana* regulated by AtJPI,a H3K4demethylase
Md Torikul Islam^{1,2,3}, I-Ju Chen¹, Long-Chi Wang^{2,4}, Wan-Sheng Lo^{1,2} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 115, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, National Chung-Hsing University, and Academia Sinica, Taiwan, ³Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 402, Taiwan, ⁴Department of Life science, National Chung Hsing University, Taichung 402, Taiwan)

- PT-144 Transcriptome analysis reveals abundant RNA editing sites and differential editing status in the organelles of *Phalaenopsis aphrodite* subsp. *formosana*.
Ting-Chieh Chen, Chi-Hsuan Wu, Yu-Ya Su, Yu-Chang Liu, Ching-Chun Chang (Department of Biotechnology and Bioindustry Sciences, National Cheng Kung University, Tainan 701, Taiwan)
- PT-145 The LDL1/2-HDA6 histone modification complex is involved in the regulation of long non-coding RNAs in Arabidopsis
Fu-Yu Hung, Keqiang Wu (Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan)
- PT-146 Characterization of molecular mechanisms of phytohormone-induced organogenesis regulated by chromomethylase *CMT3-2* in *Nicotiana benthamiana*
Ya-Han Shen, Yung-Chu Yang, Shih-Feng Fu (Department of Biology, National Changhua University of Education, Changhua 500, Taiwan)

■ システム生物学, その他

- PT-147 Chlorophyllide Enhances Cytotoxicity of Doxorubicin in Multidrug-Resistant Human Breast Cancer Cells
 Jei-Fu Shaw¹, Yi-Ping Hsiang^{2,4}, Keng-Shiang Huang³, Fu-Yu Fan¹, Chih-Hui Yang¹ (¹Department of Biological Science & Technology, I-Shou University, Kaohsiung 82445, Taiwan, ²Pharmacy Department, E-DA Hospital, Kaohsiung 82445, Taiwan, ³The School of Chinese Medicine for Post Baccalaureate, I-Shou University, Kaohsiung 82445, Taiwan, ⁴Department of Chemical Engineering & Institute of Biotechnology and Chemical Engineering, I-Shou University, Kaohsiung 82445, Taiwan)
- PT-148 Cryopreservation and metabolic analyses of major bioactive ingredients in suspension cells of snow lotus
Li-Fen Huang^{1,2}, Chia-Wei Lu², Mariama A Kujabi¹, Chi-Lung Ma, Yu-Kuo Liu² (¹Graduate School of Biotechnology and Bioengineering, Yuan Ze University, Taoyuan 320, Taiwan, ²Department of Chemical and Materials Engineering, Chang Gung University, Taoyuan 33302, Taiwan)
- PT-149 Screening of chlorophyllide from different leaves as a complimentary medicine to cancer therapy by cytotoxicity assays
Chih-Hui Yang¹, Yi-Ting Wang¹, Keng-Shiang Huang², Ru-Han Sie¹, Jei-Fu Shaw¹ (¹Department of Biological Science & Technology, I-Shou University, Kaohsiung 82445, Taiwan, ²The School of Chinese Medicine for Post Baccalaureate, I-Shou University, Kaohsiung 82445, Taiwan)
- PT-150 The expression of recombinant protein human Oct4 in rice protein expression system
Desyanti Saulina Sinaga¹, David Marpaung¹, Chia-Chun Tan¹, Yu-Hsiang Chi², Li-Fen Huang¹ (¹Graduate School of Biotechnology and Bioengineering, Yuan Ze University, Taoyuan 320, Taiwan, ²Department of Computer Science and Engineering, Yuan Ze University, Taoyuan 320, Taiwan)
- PT-151 A plant stress-specific transcriptome database: Plant Stress RNA-seq Nexus
Yu-Ting Chen^{1,2,3}, Chun-Chi Liu^{1,2,3}, Jian-Rong Li^{1,2,3}, Chuan-Hu Sun¹ (¹Institute of Genomics and Bioinformatics, National Chung Hsing University, Taichung 402, Taiwan, ²Ph.D. Program in Medical Biotechnology, National Chung Hsing University, Taichung 402, Taiwan, ³Advanced Plant Biotechnology Center, National Chung Hsing University, Taichung 402, Taiwan)
- PT-152 The pLX series: Next-generation binary vectors for plant synthetic biology and virology studies
Fabio Pasin¹, Xuan-An Tseng¹, Leonor C. Bedoya², Juan Antonio García², Yet-Ran Chen¹ (¹Agricultural Biotechnology Research Center, Academia Sinica, 11529 Taipei, Taiwan, ²Centro Nacional de Biotecnología, CNB-CSIC, 28049 Madrid, Spain)
- PT-153 A protoplast transient expression system to enable molecular, cellular, and functional studies in *Phalaenopsis aphrodite*
Hsiang-Yin Lin¹, Jhun-Chen Chen^{1,2}, Su-Chiung Fang^{1,2} (¹Biotechnology Center in Southern Taiwan, Academia Sinica, Tainan 74145, Taiwan, ²Agricultural Biotechnology Research Center, Academia Sinica, Taipei 11529, Taiwan)
- PT-154 High potential research realm of functional genomic study on gymnosperms revealed by exploring MYBs
Fu-Jin Wei¹, Saneyoshi Ueno¹, Tokuko Ujino-Ihara¹, Satoko Totsuka², Junji Iwai², Tetsuji Hakamata³, Yoshinari Moriguchi⁴ (¹FFPRI, ²Niigata Pref. Forest Res. Inst., Japan, ³Shizuoka Pref. Res. Inst. Agr. & Forestry, Japan, ⁴Niigata University, Japan)
- PT-155 The Agrobacterium-mediated genetic transformation system of *Titanotrichum oldhamii*, an emerging model plant with features in floral meristem development
Yuan-Chi Chien¹, Yu-Ling Hung², Chwan-Yang Hong³, Chun-Neng Wang⁴ (¹Department of Biochemical Science and Technology, National Taiwan University, Taipei 10617, Taiwan, ²Institute of Plant Biology, National Taiwan University, Taipei 10617, Taiwan, ³Department of Agricultural Chemistry, National Taiwan University, Taipei 10617, Taiwan, ⁴Institute of Ecology and Evolutionary Biology, Department of Life Science, National Taiwan University, Taipei 10617, Taiwan)

- PT-156 Editing of tobacco chloroplast DNA by using transcription activator like effector nuclease
Chih-Hao Huang, Yu-Chang Liu, Jia-Yi Shen, Han Hsiao, Ching-Chun Chang (Department of Biotechnology and Bioindustry Sciences, National Cheng Kung University, Tainan 701, Taiwan)
- PT-157 Effect of *Artocarpus heterophyllus* Leaf Extract on the Inhibition of Tyrosinase Activity
Fang Yuan, Xiu-Wen X, Bai-Luh Wei, Chun-Lin Lee (National Taitung University, Taitung 950, Taiwan)
- PT-158 Comparative genomic analysis of a novel strain of Taiwan hot-spring cyanobacterium *Thermosynechococcus* sp. CL-1
Yen-I Cheng¹, Yi-Fang Chiu¹, Wen-Dar Lin¹, Kung-Min Lin¹, Hsin-Ta Hsueh², Chih-Horng Kuo¹, Hsiu-An Chu¹ (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Sustainable Environment Research Laboratories, National Cheng Kung University, Tainan 701, Taiwan)
- PT-159 Detection of membrane protein–protein interaction in planta based on dual—intein—coupled tripartite split—GFP association
Tzu-Yin Liu^{1,2}, Wen-Chun Chou², Wei-Yuan Chen², Ching-Yi Chu², Chen-Yi Dai², Pei-Yu Wu² (¹Department of Life Science, National Tsing Hua University, Hsinchu 300, Taiwan, ²Institute of Bioinformatics and Structural Biology, National Tsing Hua University, Hsinchu 300, Taiwan)
- PT-160 Transit peptides that can deliver proteins into leucoplasts with high efficiency
Chung-Chih Chu, Hsou-min Li (Institute of Molecular Biology, Academia Sinica, Taipei 11529, Taiwan)
- PT-161 Swelling and Fertilizer Release Kinetics of the Environmentally Responsive Cellulose-based Hydrogel Blended with Potassium Sulfate
Yi-Chun Chen, Yi-Hua Chen (Department of Forestry, National Chung Hsing University, Taichung 402, Taiwan)
- PT-162 Phenotypic and Genomic Evaluation of TN1 collected in Taiwan
Yi Li¹, Yung-Fen Huang¹, Chih-Wei Tung¹, Chung-Ta Liao², Wen-Po Chuang¹ (¹Department of Agronomy, National Taiwan University, Taipei 10617, Taiwan, ²Crop Environment Division, Taichung District Agricultural Research and Extension Station, COA, 370 Song Hwai Road, Dacun Township, Changhua County 51544, Taiwan)
- PT-163 Enlarged and highly repetitive plastome of *Lagarostrobos* and plastid phylogenomics of Podocarpaceae
Edi Sudianto^{1,2,3}, Chung-Shien Wu³, Lars Leonhard⁴, William F. Martin⁵, Shu-Miaw Chaw^{1,3} (¹Biodiversity Program, Taiwan International Graduate Program, Taipei 11529, Taiwan, ²Department of Life Science, National Taiwan Normal University, Taipei 116, Taiwan, ³Biodiversity Research Center, Academia Sinica, Taipei 11529, Taiwan, ⁴Botanical Garden, Heinrich-Heine-University, Germany, ⁵Institute of Molecular Evolution, Heinrich-Heine-University, Germany)
- PT-164 PlantPAN 3.0: an updated resource for interpreting transcriptional regulatory networks from ChIP-seq experiments and integrating protein structure-based features of regulatory factors in plants
Chi-Nga Chow¹, Tzong-Yi Lee², Yu-Cheng Hung³, Guan-Zhen Li³, Kuan-Chieh Tseng⁴, Ya-Hsin Liu⁴, Po-Li Kuo³, Han-Qin Zheng³, Wen-Chi Chang^{1,3,4} (¹Graduate Program in Translational Agricultural Sciences, National Cheng Kung University and Academia Sinica, Taiwan, ²School of Science and Engineering, The Chinese University of Hong Kong, Shenzhen, China, ³Institute of Tropical Plant Sciences, College of Biosciences and Biotechnology, National Cheng Kung University, Tainan 70101, Taiwan, ⁴Department of Life Sciences, College of Biosciences and Biotechnology, National Cheng Kung University, Tainan 70101, Taiwan)
- PT-165 Two BAC libraries of orchid facilitate completion of NGS sequences in *Phalaenopsis equestris*
Tien-Chih Chen¹, Wen-Luan Wu² (¹Department of Life Sciences, National Cheng Kung University, Tainan 701, Taiwan, ²Department of Life Sciences, National Cheng Kung University, Tainan 701, Taiwan)
- PT-166 Genotyping-by-sequencing identification of SNP markers linked to aesthetic traits in *Phalaenopsis* orchids
Li-Min Huang, Chia-Chi Hsu, Shang-Yi Chiu, Shu-Yun Cheng, Wen-Chieh Tsai, Wen-Huei Chen, Hong-Hwa Chen (Department of Life Sciences, National Cheng Kung University, Tainan 701, Taiwan)
- PT-167 Interactions between pine-associated microbiomes and fire regime
Chao-Li Huang¹, Hsin-Ni Liu¹, Tsai-Wen Hsu² (¹Institute of Tropical Plant Sciences, National Cheng Kung University, Tainan 701, Taiwan, ²Endemic Species Research Institute, Nantou County 552, Taiwan)
- PT-168 Comparative analysis of Formosan rice – with emphasis on evolutionary patterns
Cheng-Chieh Wu^{1,2}, Laurent Sagart³, Lin-Tzu Huang¹, Yi-Tzu Tseng^{1,2}, Yue-je Caroline Hsing¹ (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, ²Institute of Plant Biology, National Taiwan University, Taipei 10617, Taiwan, ³Centre de Recherches Linguistiques sur l'Asie Orientale/Centre National de la Recherche Scientifique, INaLCO, 2 rue de Lille, Paris, France)
- PT-169 The genomic investigation of weedy *Arabidopsis* evolution
Cheng-Ruei Lee, Che-Wei Hsu, Cheng-Yu Lo (National Taiwan University, Taipei 106, Taiwan)

■ 一次代謝, 二次代謝

PT-170 Marker-Assisted Selection for Improving Nitrogen Use Efficiency of Tainan 11 (TN 11) Rice Cultivar through Introgression of *NRT1.1B*; *DEP1* Genes and *TOND1* QTL

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■ 植物ホルモン/シグナル伝達物質

PT-171 Phosphoproteomics of Highly ABA-Induced1 identifies AT-Hook Like10 phosphorylation required for growth regulation during stress
Min May Wong^{1,2,3}, Govinal Badiger Bhaskara¹, Tuan-Nan Wen¹, Wen-Dar Lin¹, Thao Thi Nguyen¹, Geeng Loo Chong^{1,2,3}, Paul E. Verslues^{1,2,4} (¹Institute of Plant and Microbial Biology, Academia Sinica, Taipei 115, Taiwan, ²Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, National Chung-Hsing University, Taichung 402, Taiwan and Academia Sinica, Taipei 115, Taiwan, ³Graduate Institute of Biotechnology, Biotechnology Center, National Chung-Hsing University, Taichung 402, Taiwan, ⁴Biotechnology Center, National Chung-Hsing University, Taichung 402, Taiwan)