



**Congratulations to all winners!!!**

**ABRC 24<sup>th</sup> Annual Poster Competition 2023**  
**Outstanding Poster Award Winners**

(based on the evaluation of ABRC faculty and invited reviewers)

**Integrative Plant Stress Biology (iPSB)**

**Chi-Hsin Chang (張琪昕)**

**The phyto cytokine CAPE9 and its receptor CAPER1 function on plant local and systemic stomatal immunity**

*Chi-Hsin Chang<sup>1,2,3</sup>, Kai-Tan Cheng<sup>1</sup>, Fan-Wei Lin<sup>1</sup>, Yu-Hsuan Huang<sup>1,4</sup> and Yet-Ran Chen<sup>1,2,3\*</sup>*

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<sup>4</sup>Institute of Plant Biology, National Taiwan University, Taipei 106, Taiwan

**Yu-Chun Shao (邵俞鈞)**

**Regulation of vacuolar phosphate transporter PHT5 via intra-molecular conformational change and inositol pyrophosphate binding**

*Chih-Bin Chiang, Zhengrui Wang, Jia-Ling Li, Yu-Chun Shao, Ching-Mei Sun, Hui-Fen Kuo, Su-Fen Chiang and Tzyy-Jen Chiou\**

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**Puyam Tondonba Singh (金甫陽)**

**Copy Number Variation and Fusarium wilt TR4 resistance in Cavendish banana somatic variants**

*Puyam Tondonba Singh<sup>1,2</sup>, Yi-Heng Tsai<sup>1</sup>, Bo-Han Hou<sup>1</sup>, Ho-Ming Chen<sup>1</sup>*

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**Ya-Tan Cheng (鄭雅丹)**

**The Regulation of Cytosolic  $\alpha$ -Tubulin Proteostasis by the Mitochondrial Inner Membrane Protease OMA1 Under Acute Heat Stress**

*Ya-Tan (Cassie) Cheng<sup>1,2,3#</sup> and Der-Fen Suen<sup>1,3,4\*</sup>*

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<sup>3</sup>Molecular and Biological Agricultural Sciences, Taiwan International Graduate Program, Academia Sinica, Taipei, Taiwan

## Yu-Chun Hsiao (蕭仔君)

### RGF1 controls the meristem size by stabilizing PLETHORA 2 protein via manipulating ROS levels

*Yu-Chun Hsiao*<sup>1,2,#</sup>, *Shiau-Yu Shiue*<sup>1,2,#</sup>, *Ming-Ren Yen*<sup>1,2,#</sup>, *Masashi Yamada*<sup>1,2\*</sup>

<sup>1</sup>Agricultural Biotechnology Research Center, Academia Sinica

<sup>2</sup>Biotechnology Center in Southern Taiwan, Academia Sinica

## Munkhtsetseg Tsednee (紀孟希)

### Root secreted metabolome of *Arabidopsis thaliana* natural accessions: roles in adaptation to soil pH environments

*Munkhtsetseg Tsednee*, *Chen-Yun Ting*, *Chih-Yu Lin*, *Kuo-Chen Yeh*\*

Agricultural Biotechnology Research Center, Academia Sinica, Taipei, Taiwan 115

## Sheng-Chi Hung (洪勝崎)

### Quantitative Peptidomics Study for the Identification of a PAMP-Induced Phyto cytokine that Regulate Plant Immunity

*Sheng-Chi Hung*<sup>1,2</sup> and *Yet-Ran Chen*<sup>1,2,\*</sup>

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<sup>2</sup>Institute of Biotechnology, National Taiwan University, Taipei Taiwan, 10617

## Suma Mitra (米舒瑪)

### HSP101 prevents proteasome-mediated rapid degradation of HSA32 to maintain heat acclimation memory in *Arabidopsis*

*Suma Mitra*<sup>1,2,3</sup>, *Shih-Jiun Yu*<sup>1,4</sup>, *Hong-Yi Li*<sup>1,4</sup>, *Nai-Yu Liu*<sup>1</sup>, *Chuan-Chih Hsu*<sup>5</sup>, *Akankshita Borah*<sup>1,2,3</sup>, *Yu-Yan Shen*<sup>1</sup>, *Meng-Ju Hung*<sup>1</sup>, *Yang-Hsin Hsu*<sup>6</sup>, *Hongyong Fu*<sup>2,3,5</sup>, *Yee-yung Charng*<sup>1,2,3,4</sup>

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<sup>6</sup>Department of Horticulture, National Chiayi University, Chiayi, Taiwan

## Solomon Antonio (所羅門)

### The Role of NADPH Oxidase-Mediated ROS in Mitochondrial Status in *Arabidopsis* Tapetum

*Solomon Antonio Jr.*<sup>1,2,3</sup>, *Der-Fen Suen*<sup>1,3,4\*</sup>

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<sup>4</sup>Biotechnology Center, National Chung-Hsing University, Taichung, Taiwan

## Ya-Ru Li (李雅茹)

### Modeling alternative translation initiation sites in plants reveals evolutionarily conserved *cis*-regulatory codes in eukaryotes

*Ting-Ying Wu<sup>a,\*</sup>, Ya-Ru Li<sup>c</sup>, Kai-Jyun Chang<sup>c</sup>, Jhen-Cheng Fang<sup>c</sup>, Daisuke Urano<sup>b</sup> and Ming-Jung Liu<sup>c,\*</sup>*

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<sup>b</sup>Temasek Life Sciences Laboratory, Singapore

<sup>c</sup>Agricultural Biotechnology Research Center, Academia Sinica, Taipei 115, Taiwan

## Yi-Tze Chen (陳怡孜)

### ENA1, a transporter of nicotianamine that mediates secretion in the root of *Arabidopsis*

*Yi-Tze Chen<sup>1</sup>, Jing-chi Lo<sup>1,2</sup>, Tomoko Nozoye<sup>3,4</sup>, Ying-Chu Lo<sup>1</sup>, Naoko K. Nishizawa<sup>4,5</sup> and Kuo-Chen Yeh<sup>1,\*</sup>*

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<sup>5</sup>Ishikawa Prefectural University, Nonoichi, Ishikawa, Japan

## Yen-Ning Chen (陳彥甯)

### Visualizing Nitrate Dynamics in Root development: Insights from non-invasive fluorescence biosensor

*Yen-Ning Chen, and Cheng-Hsun Ho<sup>\*</sup>*

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## Kuen-Jin Tsai (蔡昆縉)

### Characterization of stress associated proteins in the tomato cultivar Micro-Tom against tomato yellow leaf curl Thailand virus

*Kuen-Jin Tsai, Yun-Shan Tsai, and Hsin-Hung Yeh<sup>\*</sup>*

Agricultural Biotechnology Research Center, Academia Sinica, Taipei, 11529, Taiwan

## Herbal Medicine Research (HMR) or Molecular Vaccine Technology (mVT) or Enzyme Biotechnology

## Jeng-Yuan Shiau (蕭証元)

### Integrated omics strategy reveals deoxyelephantopin and its derivative DETD-35 induced mitochondrial dysfunction in triple negative breast cancer cells

*Jeng-Yuan Shiau, Han-Jung Huang, and Lie-Fen Shyur<sup>\*</sup>*

Agricultural Biotechnology Research Center, Academia Sinica, Taiwan

## Bo-Wei Wang (王博緯)

### **Actions of 6-pentyl-2H-pyran-2-one derivative in controlling fusarium wilt by *Fusarium oxysporum* f. sp. *cubense* in banana**

Bo-Wei Wang<sup>1,2,3,4</sup>, Yang-Zhi Zhou<sup>2,3</sup>, Yao-Cheng Lin<sup>2,3</sup>, Yu-Liang Yang<sup>1,2,3,\*</sup>, Chih-Chuang Liaw<sup>1,4,\*</sup>

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<sup>4</sup>Department of Marine Biotechnology and Resources, National Sun Yat-sen University, Kaohsiung, Taiwan, 700

## Meng-Ting Chang (張孟亭)

### **Chemopreventive phytoesquiterpene lactones impede BRAF inhibitor induced cutaneous papilloma through regulating MAPK pathway and lipid metabolism**

Meng-Ting Chang, Jia-Hua Feng, and Lie-Fen Shyur\*

Agricultural Biotechnology Research Center, Academia Sinica, Taipei 115, Taiwan

## Yu-Ting Cheng (鄭聿廷)

### **Phytopsesquiterpene lactones deregulate mitochondrial activity and cancer stemness of lung-metastatic triple-negative breast cancer**

Yu-Ting Cheng<sup>1,2,3</sup>, Dao-Ming Chang<sup>4</sup>, Yi-Chung Tung<sup>4</sup>, Kyoko Nakagawa-Got<sup>5</sup>, and Lie-Fen Shyur<sup>1,2,6,7\*</sup>

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